Supervisory letter: Liquidity risk management by UCITS and non-UCITS of significant size

Content

Writers

Merja Junnonen / merja.junnonen(at)fiva.fi or tel. . +358 9 183 5554

Anna Mäkipeska / anna.makipeska(at)fiva.fi or tel. +358 9 183 5023

Kristian Nihtilä / kristian.nihtila(at)fiva.fi or tel. +358 9 183 5294

1 Overview of UCITS liquidity risk management

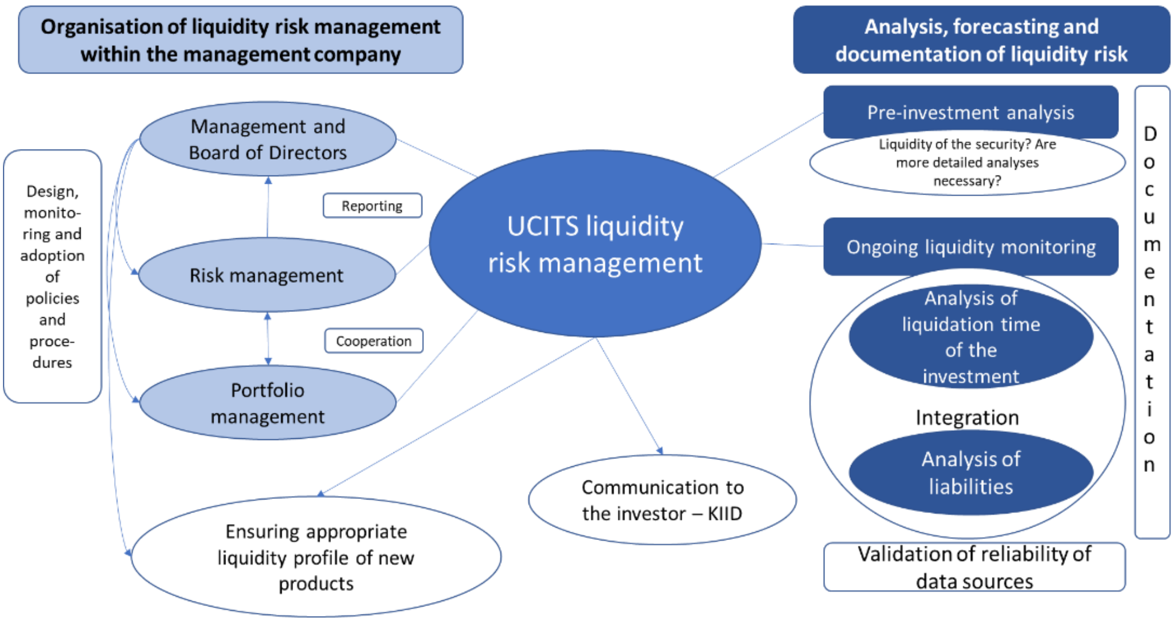
UCITS assets are, as a rule, invested in securities and money market instruments traded on regulated marketplaces. The value of the assets is determined based on market values, and fund units can usually be subscribed for and redeemed on a daily basis.

One of the objectives of UCITS regulation is to ensure that the management company is able to redeem units in the fund at the unitholder's demand in accordance with the rules of the fund. In order to fulfil this obligation, management companies must identify, measure, monitor and manage UCITS liquidity risk. Compliance with regulation concerning liquidity risk management supports financial stability, investor protection and the orderly functioning of the markets.

The activities of the management company must be organised in a reliable manner. The management company must have the necessary resources, administrative procedures and control systems in place for appropriate conduct of its activities.[1] This requirement also applies to the arrangement of liquidity risk management for the UCITS. The activities of the management company's board of directors, operative management, risk management and portfolio management must be organised in a manner taking the liquidity risk management of the UCITS into account.

The liquidity risk of UCITS must be analysed and forecasted both before making an investment and also as part of ongoing risk management. The purpose of the management company's liquidity risk analyses and forecasts is to ensure that redemptions can be executed in the schedule promised in advance to the investors. The analyses and forecasts must be prepared with a view to this objective with adequate depth and scope.

The chart below illustrates the matters that must be taken into account in the management of liquidity risk, regarding both the arrangement of liquidity risk management within the management company and the analysis and forecasting of liquidity risk.



Picture 1. UCITS liquidity risk management.

[1] *Chapter 4, section 1(1) of the Act on Common Funds (hereinafter "Mutual Funds Act", 1999/48).*

2 Background, objectives and conclusion of the thematic review

2.1 Background

In 2020, the Financial Supervisory Authority (hereinafter “FIN-FSA”) carried out two supervisory initiatives related to the liquidity management of investment funds. The first supervisory initiative (hereinafter “UCITS thematic review”) was part of the Common Supervisory Action (CSA) coordinated by the European Securities and Markets Authority (ESMA). The initiative was carried out in two stages in accordance with instructions and questions drawn up by ESMA. The purpose of the initiative was to examine management companies’ compliance with requirements concerning the management of liquidity risk. https://www.esma.europa.eu/press-news/esma-news/esma-launches-common-supervisory-action-ncas-ucits-liquidity-risk-management

The second supervisory initiative thematic review (hereinafter “ESRB thematic review”) was based on a recommendation provided on 6 May 2020 by the European Systemic Risk Board (ESRB) to ESMA to assess the preparedness of funds investing in corporate debt and real estate to respond to large redemptions and/or valuation challenges. The initiative was conducted in accordance with instructions prepared by ESMA. The need for this initiative arose primarily from market events related to the coronavirus (COVID-19) crisis of spring 2020. The review looked into the management of liquidity risk by management companies and alternative investment fund managers (AIFM) for certain funds. https://www.esma.europa.eu/sites/default/files/library/esma50-158-2232_statement_esrb_recommendation.pdf

This supervision letter highlights the FIN-FSA’s findings and views based on these findings regarding both initiatives, however, the main focus being on the UCITS thematic review. Furthermore, the findings of the second stage of the UCITS thematic review have a stronger emphasis in the report, since the second stage was based on more extensive and deeper analysis. Sections 1–8 only discuss the UCITS thematic review, while section 9 also discusses the ESRB thematic review.

2.2 Objectives

The objective of the ***UCITS thematic review*** was to find out how management companies are complying with requirements concerning liquidity risk management, and how liquidity risk is being managed in practice:

- as part of the organisation of risk management for the management company
- as part of ongoing risk management for UCITS
- in pre-investment analyses
- in validating the reliability and accuracy of data used in risk management
- in the key investor information document provided to investors

The thematic review was carried out in two separate stages in 2020. In the first stage, information was requested from all 23 Finnish management companies (with closed-ended questions). As part of the thematic review, Finnish management companies also reported data on 536 UCITS under their management, 394 of which registered in Finland.

For the second stage of the thematic review, applying a risk-based approach, the FIN-FSA selected seven management companies and 16 UCITS under their management investing mainly in corporate credit with either a low credit rating (hereinafter “high yield”) or a high credit rating (hereinafter “investment grade”). The management companies reviewed in the second stage of the thematic review comprised 30% of the number of Finnish management companies and the total assets under their management accounted for 90% of the AUM of UCITS registered in Finland. The management companies selected to the second stage responded to more detailed open-ended questions regarding their obligation to identify, measure, monitor and manage UCITS’ liquidity risk. As part of the second stage of the thematic review, the management companies also submitted security-by-security data on the portfolios of selected funds. ESMA has published the results of the common supervisory action on March 24, 2021. https://www.esma.europa.eu/document/esma-presents-results-2020-common-supervisory-action-csa-ucits-liquidity-risk-management

The objective of the ***ESRB thematic review*** was to:

- Analyse large corporate bond and real estate funds’ liquidity, valuation challenges and preparedness to respond to redemption demands during the coronavirus crisis of 2020.
- Assess the capacity of large corporate credit and real estate funds to respond to significant redemption challenges during possible future market shocks.
- Assess whether securities market supervisors should take further measures to raise the level of preparedness in the fund sector and whether there is a need to develop European regulation.

In the context of the supervisory initiative, the FIN-FSA submitted a request for information to a total of seven institutions, either management companies or AIFMs, and reviewed a total of 13 funds meeting the following criteria:

- UCITS fund or non-UCITS fund with direct fund-specific investments in corporate debt in excess of €1 billion as at 31 December 2019 (hereinafter “corporate bond funds”) or
- Non-UCITS fund investing in real estate with assets under management in excess of €500 million as at 31 December 2019 (hereinafter “real estate funds”).

ESMA compiled a final report based on the responses provided to it by national securities market supervisors, containing an analysis made by ESMA and action proposals. The report was submitted to the ESRB in October 2020 for possible further actions. Report published by ESMA: https://www.esma.europa.eu/sites/default/files/library/esma34-39-1119-report_on_the_esrb_recommendation_on_liquidity_risks_in_funds.pdf

2.3 Summary

Summary of findings from the UCITS thematic review:

- In the management companies, responsibility for liquidity risk management was appropriately assigned to the risk management function.
- Shortcomings were identified in the management companies’ regular reporting on liquidity risk to operative management and the board of directors.
- Some management companies had room for improvement in the following topic areas:
    - Factors related to unitholders were not considered in the context of ongoing liquidity risk management.
    - Factors related to the unitholders and the duration of the liquidation period of the investments were not considered in the analyses
    - No risk limits for liquidity risk have been adopted to be monitored and controlled.
- Any pre-investment liquidity risk forecasts and analyses were primarily under the portfolio manager's responsibility. These had not been documented appropriately.

- Some of the management companies had failed to perform the ongoing assessment of the reliability and accuracy of data used in the liquidity risk analyses.
- The majority of the management companies had taken liquidity risk into account in the key investor information document.

Summary of findings from the ESRB thematic review:

- Corporate bond funds maintained stable portfolio structures (e.g. in terms of asset allocation) and liquidity throughout the corona crisis despite relatively large redemptions in winter 2020.
- The AIFMs managing real estate funds did not use liquidity management tools, but they adjusted their liquidity management processes for example by raising cash, opening a temporary credit line and updating the stress test scenarios.
- For both corporate bond funds and real estate funds, the main challenge during the corona crisis in the spring was the unusually high degree of valuation uncertainty.

3 Organisation of liquidity risk management

Criteria

The activities of a management company must be organised in a reliable manner with a view to the nature of the UCITS-compliant funds under its management. The management company must have the necessary resources, administrative code of conduct and supervision systems in place for appropriate conduct of its activities.[2]

The management company must have an adequate and documented risk management policy which can be used to identify the risks to the investment funds it manages. The risk management policy must be implemented in the ordinary course of business and updated on a regular basis.[3]

The risk management policy must describe, in addition to the risk measurement techniques and arrangements, the internal allocation of responsibilities pertaining to risk management as well as risk management reporting to the board of directors, senior management and the control function, if any[4]. The Company should ensure that regular communication channels are established between the risk control function and the portfolio manager for the risk management process to function effectively.[5]

The management company shall have a permanent risk control function, which is hierarchically and functionally independent of the operative units. The management company may deviate from this requirement if the deviation is appropriate and proportionate with a view to the nature, scope and complexity of its business and of the UCITS under its management. The management company must be able to demonstrate that specific safeguards against conflicts of interest are in place to allow for independent performance of risk control activities.[6]

The permanent risk management function is tasked with, among other things, providing regular reports to the board of directors on the consistency between the current level of risk and the agreed risk profile

[2] Chapter 4, section 1(1) of the Mutual Funds Act (1999/48).
[3] FIN-FSA regulations and guidelines 3/2011 on the organisation of investment fund activities, chapter 8.1, paragraph (3)
[4] FIN-FSA regulations and guidelines 3/2011, chapter 8.1, paragraph (5)
[5] CESR Guidelines on risk management principles for UCITS, paragraph 18.
[6] FIN-FSA regulations and guidelines 3/2011, chapter 7.3, paragraphs (15–16)

of each UCITS, the compliance of each UCITS with relevant risk limits and the adequacy and effectiveness of the risk management process.[7]

Findings

Findings of the first stage
In the first stage of the UCITS thematic review, management companies were posed closed-ended questions (response options: yes, no and not applicable) on:

a) Independent risk management
b) Risk management reporting
c) Number of audits performed by the control function of the management company
d) Findings concerning liquidity risk

a) Independent risk management: According to the responses, in the majority of the management companies, liquidity risk is controlled by a risk management function independent of portfolio management.

b) Risk management reporting: The management companies were asked whether they have ensured that the operative management, board of directors and, where necessary, control functions, receive reports on a regular basis on the effectiveness of the liquidity risk management process. All 23 management companies reported that the company’s operative management and board of directors receive reporting on a regular basis on the effectiveness of the liquidity risk management process.

c) Number of audits: The management companies were asked how many audits concerning liquidity risk management had been performed by the internal audit or compliance function in 2018 or 2019. 14 management companies responded that there had been no such audits at all. There had been audits in nine management companies, and their number varied across the companies from 1 to 24.

d) Observations concerning liquidity risk: The management companies were asked whether they had received warnings or negative observations in 2018 or 2019 about liquidity risk from the depositary, auditors, internal audit or compliance, which had not been remediated by the deadline. According to the responses, none of the management companies had pending deviations from 2018–2019.

Findings of the second stage
In the second stage of the UCITS thematic review, seven management companies were asked company-specific open-ended questions related to the management of liquidity risk on:

a) Organisation of risk management
b) Escalation process
c) Reporting by the risk management function to the board of directors and operative management
d) Alerts and observations by the compliance function, internal audit, external auditor and depositary
e) Design phase for a new product

In connection with each answer, the management company was requested to provide a document allowing the verification of the procedure described.

[7] *FIN-FSA regulations and guidelines 3/2011, chapter 7.3, paragraph (17)*

a) Organisation of risk management: All seven management companies reported that responsibility for the monitoring of liquidity risk is assigned to the risk management function. However, in most of the management companies, the portfolio management function was also tasked with the monitoring and analysis of liquidity risk. Two management companies had a committee specifically responsible for discussing risk management issues. Four management companies attached the company's risk management policy defining the allocation of responsibilities to their response. As regards the other management companies, the FIN-FSA was unable to verify the allocation of responsibilities.

b) Escalation processes: Three management companies responded that they have an escalation process for overruns of the liquidity limits, but based on the documents submitted, the FIN-FSA was only able to verify that the process was sufficiently comprehensive and detailed in one management company.

c) Risk management reporting: The FIN-FSA was able to verify that four management companies report on a regular basis on liquidity risk management to operative management and the board of directors. The FIN-FSA was unable to verify that any of the companies provide regular reporting by the risk management function to the operative management and board of directors on the effectiveness of the process.

d) Observations by the control functions, auditors and depositaries of the management company: One management company responded it had received a negative observation from its depositary concerning the liquidity of an individual fund. No other management companies had received alerts or negative observations concerning liquidity risk management in 2018–2019 from the compliance function, internal audit, external auditor or depositary.

e) Design phase for new products: Five out of seven management companies had a process for the approval of a new product. Based on the documentation submitted by the management companies, the FIN-FSA was able to verify that liquidity risk is taken into consideration in the process. Three management companies had a committee for the approval of a new product.

FIN-FSA's view

The management company must have adequate resources, procedures and internal control processes with a view to its business and the nature, scale and complexity of the UCITS managed by it. The appropriate organisation of these is the board of directors' responsibility.

Regulation requires that management companies have a liquidity risk management process at their disposal. In the FIN-FSA's view, the liquidity risk management process must be part of the management company's risk management principles or a separate guideline referred to in the risk management principles.

In the FIN-FSA's view, it is a good practice to describe at least the following topics in the liquidity risk management process:

- Responsible parties
- Frequency of monitoring
- Procedures and techniques for the monitoring of liquidity risk
- Risk limits
- Backtesting methodologies

- Stress tests
- Internal reporting
- Reliability assessment and testing of data sources

In the FIN-FSA's view, as a rule, the reliable organisation of risk management requires that risk management is hierarchically and functionally independent of the operative units. If the management company does not have an independent risk management function, the board of directors must present justifications for the deviation from this requirement and also assess the matter on a regular basis. The assessment must be based on regulatory criteria. [8] The FIN-FSA finds it good practice that companies have a risk committee or another comparable group to ensure the flow of information and discussion, for instance between portfolio management and risk management, particularly in exceptional circumstances. In addition, the reliable organisation of risk management requires at any rate that the responsibility for risk management is not assigned to a single person, such as a risk manager, but the function must be adequately resourced, with deputy arrangements in place.

The FIN-FSA finds that, in normal circumstances, the risk management function must report on liquidity risks at least on a quarterly basis to the management company's board of directors and operative management in order for the management of the company to have the actual possibility to have information on the effectiveness of the company's risk management, any measures taken, and to take remediating actions when necessary. In exceptional market situations, reporting must be considerably more frequent.

The report must indicate, among other things, whether there were any overruns of the risk limits established for the funds during the period, what was the reason for any such overrun and what actions were taken as a result of it. The report must be comprehensive and clear enough to enable the board of directors of the management company to assess the effectiveness of risk management.

The FIN-FSA reminds that the company's control functions should also review liquidity risk management in fixed intervals.

The product governance requirements of the MiFID II Directive[9] are not applicable as such to the management company in developing a new fund product. Management companies must consider liquidity aspects as part of risk management at the product development phase. This requires, among other things, that when the board of director makes a decision regarding a new product, it must at the same time ensure that the fund's investment strategy and redemption policy under its rules are mutually consistent.

4 Ongoing liquidity monitoring

Criteria

The objective of regulation concerning liquidity risk management is to ensure that redemption orders made by the unitholders of the UCITS can be executed and paid out in accordance with the fund's rules. To secure this objective, the management company must employ a liquidity risk management process.[10]

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[8] *FIN-FSA regulations and guidelines 3/2011, paragraph (16)*
[9] *Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU.*
[10] *FIN-FSA regulations and guidelines 3/2011, chapter 8.2, paragraph (12)*

The board of directors of the management company must adopt appropriate and effective arrangements, processes and techniques, allowing the management company to manage and measure, in real time, the risks to which the UCITS under its management are exposed.[11] The risk management processes and risk measurement techniques must be proportionate with the nature, scale and complexity of the business of the management company and appropriate to the risk profile of the UCITS.[12]

The management company must ensure that the liquidity profile of each UCITS it manages is appropriate to the redemption policy laid down in the fund rules, the instruments of incorporation or the prospectus.[13]

The management company shall take the following actions for each UCITS it manages:

a) put in place such risk measurement arrangements, processes and techniques as are necessary to ensure that the risks of taken positions and their contribution to the overall risk profile are accurately measured on the basis of sound and reliable data and that the risk measurement arrangements, processes and techniques are adequately documented;

b) conduct appropriate periodic back-tests in order to review the timeliness and appropriateness of risk measurement arrangements, such as model-based forecasts and estimates;

c) conduct appropriate periodic stress tests and scenario analyses to address risks arising from potential changes in market conditions that might adversely impact the UCITS;

d) establish a documented system of internal limits concerning the measures taken to manage and control the relevant risks for each UCITS, taking into account the exposure to market, liquidity and counterparty risks, and all other material risks that are relevant for each investment fund it manages while ensuring consistency with the UCITS' risk-profile;

e) ensure that current level of risk of each UCITS is consistent with the risk limit system as set out in item d);

f) establish, apply and maintain adequate code of conduct that, in the event of actual or anticipated breaches to the risk limit system of a UCITS, result in timely remedial actions in the best interests of unitholders.[14]

ESMA has published guidelines on liquidity stress testing in UCITS and AIFs. The Guidelines entered into force on 30 September 2020.[15]

As regards items (d), (e) and (f) above, the risk limit system must reflect the UCITS' risk profile and establish appropriate limits for all relevant risk factors. In determining the risk limits, interactions of different risks should also be taken into account. The monitoring of risk limits must be documented clearly, which means that the management company also keeps records of cases where the risk limits have been exceeded and what actions were taken as a result.[16]

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[11] *FIN-FSA regulations and guidelines 3/2011, chapter 8.2, paragraph (9)*
[12] *FIN-FSA regulations and guidelines 3/2011, chapter 8.2, paragraph (10)*
[13] *FIN-FSA regulations and guidelines 3/2011, chapter 8.2, paragraph (14)*
[14] *FIN-FSA regulations and guidelines 3/2011, chapter 8.2, paragraph (11)*
[15] *ESMA Guidelines on liquidity stress testing in UCITS and AIF ESMA 34-39-882*
[16] *CESR Guidelines on Risk Management Principles for UCITS, paragraphs 52–55.*

Findings

Findings of the first stage
In the first stage of the UCITS thematic review, closed-ended questions were posed to 23 management companies on:

a) ongoing liquidity monitoring procedures
b) frequency of conducting liquidity analyses and
c) use of liquidity management tools

a) Ongoing liquidity monitoring procedures: Almost all management companies took factors related to the unitholders' characteristics (concentration of ownership, investor type) into consideration in liquidity management. The majority of management companies designed specific procedures for some asset classes, such as high yield corporate bonds, emerging market equities and bonds or securities not subject to public trading, to monitor their liquidity. In addition, almost all management companies stated they use only cash as collateral for derivatives.

b) Frequency of analyses:

How often does the responsible party conduct liquidity analyses	Number of management company where portfolio manager makes liquidity analyses	Number of management company where risk management makes liquidity analyses
Daily	12	2
Weekly	0	1
Monthly	1	12
Quarterly	2	4
Annually	1	3
Not responsible	7	1
	23	23

Table 1. Frequency of liquidity analyses performed by the portfolio manager and risk management

c) Utilisation of liquidity management tools

Liquidity management tools utilised in 2018–2019	Number of management companies
Deferred redemptions	3
Redemption and subscription windows reduced	1
Redemption fees raised	0
Redemptions and subscriptions suspended	0
Swing pricing applied	1
Temporary borrowing for redemptions	2

Table 2. Liquidity management tools utilised in 2018–2019.

Findings of the second stage
In the second stage of the UCITS thematic review, the management companies described at a more detailed level:

a) ongoing liquidity management procedures
b) backtesting

c) liquidity risk limits

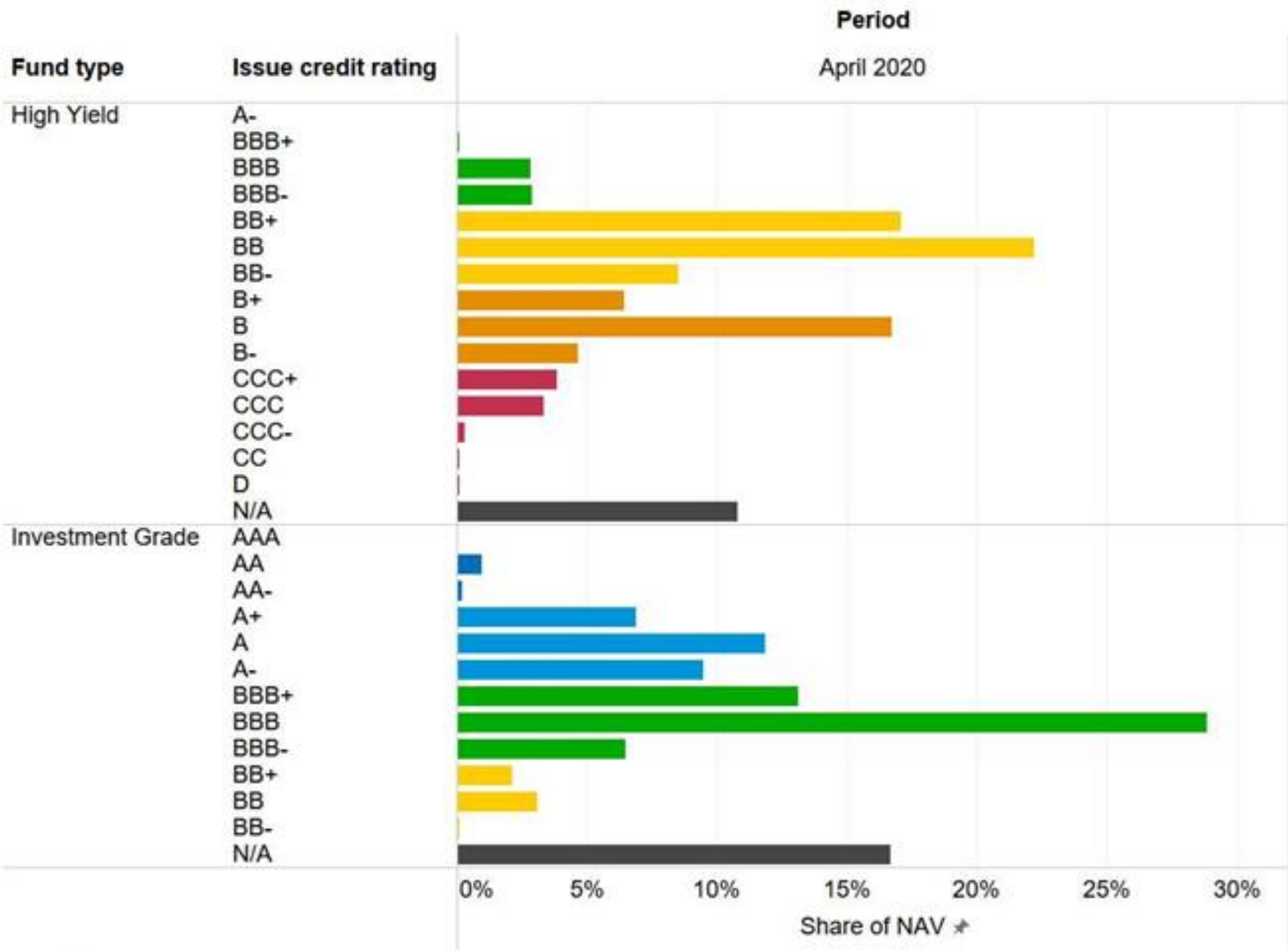
a) Ongoing liquidity management procedures:
   - Five out of seven management companies forecasted the liquidation times in circumstances where a pre-determined group of investors concurrently redeems its investments.
     - As regards two management companies, the FIN-FSA was unable to ascertain that the analysis mentioned in the response had been completed due to the lack of documentation.
   - Two management companies stated they analyse the liquidation times of securities. As regards one of them, the FIN-FSA was unable to verify the response due to the lack of documentation. Neither of these management companies adequately analysed factors related to the unitholders, or integrated factors related to asset liquidation times and unitholders in their analyses.
   - Three management companies responded that transaction costs are also considered in the analyses as one of the factors affecting liquidity, but only one of them provided documentation allowing verification.
   - Several respondents noted that derivatives are only used to a minor extent or only for hedging purposes. All except one management companies reported they monitor the margin requirement.

b) Backtesting: None of the respondents do backtesting.

c) Liquidity risk limits: Three out of seven management companies had defined monitoring risk limits for liquidity factors. Based on the liquidity analyses provided, three management companies illustrate the level of the liquidity factors with traffic lights. As an example, one of the liquidity factors monitored was the liquidation time of the UCITS' investments as a ratio of forecasted redemptions and how much of the UCITS' assets can be sold within a day without exceeding acceptable transaction costs determined for the fund. One management company stated it monitored redemption limits, that is, maximum redemption amounts defined in euro. Furthermore, two management companies reported they monitor the UCITS' diversification limits.

The management companies submitted security-by-security data on 16 high yield and investment grade corporate bond funds as at 31 December 2019 and 30 April 2020. Based on the data reported by the management companies, the portfolios of the UCITS concerned were well diversified on the dates concerned.

- Almost none of the UCITS had a single asset accounting for over 5% of its total assets.
- There was some variation in the proportion of cash in the UCITS' net asset value (0.3–11%) in December 2019. Most of the UCITS held a higher proportion of its assets in cash in April 2020 than in December 2019. In April, net subscriptions in the UCITS were primarily positive, which contributed to the UCITS' higher cash weights in comparison with December.
- The securities held by the UCITS accounted for a moderate proportion of the total value of the respective issue (largest exposures being 7–9% of the size of the issue but primarily under 2%).



Source: FIN-FSA.

Chart 2. Security-specific credit ratings of the holdings of investment grade funds ranged from A- to BB, with largest exposures in the A- and BBB grades. The security-specific credit ratings of the holdings of high yield funds ranged from A- to D, with largest exposures in the BB- and B grades. N/A means that the security did not have a credit rating by an official rating agency.

FIN-FSA's view

The FIN-FSA considers that at least the following factors must be taken into consideration in the ongoing liquidity risk monitoring methods and techniques in order for the management company to be able to measure and manage the liquidity risk to which the UCITS is exposed:

- Liquidity of the fund's investments
- Cash position
- Fund's liabilities

The liquidity risk of the UCITS' investments can be managed by assessing their historical, present and estimated future liquidation times at the asset class level, while also paying attention to factors affecting liquidity within the asset class, such as credit rating, issue size and market capitalisation. The assessment must reflect both normal and exceptional market conditions.

The analysis of the UCITS' liabilities must cover various redemption scenarios and the redemption behaviour of different unitholders along with their effect on the liquidity of the fund. Any other liabilities, such as the margin requirements for derivatives potentially used by the UCITS, must be taken into account in ongoing liquidity monitoring.

The integration of the results of these analyses and utilisation of scenarios incorporating the abovementioned variables may contribute to ensuring that redemption orders of the UCITS can be executed in accordance with its rules.

Regulation requires that risk limits are established for the above variables, which are monitored and controlled in the context of preparing liquidity analyses for the UCITS. If the risk limits are exceeded, the management company must have a process for remediating actions and reporting. In the FIN-FSA's view, monitoring of the liquidity risk limits does not only mean the diversification limits and redemption limits. In the determination of the risk limits, attention should be paid to the UCITS' liquidity risk profile, liquidity risks related to the fund's investments and liabilities, and their interconnections. The FIN-FSA reminds that the established risk limits must be included appropriately in internal guidelines. Overruns of the limits, the reasons therefor, and consequent actions must be documented and reported appropriately in accordance with the risk management principles.

Likewise, the frequency of ongoing liquidity risk monitoring must reflect the market conditions and factors related to the liquidity risk of the UCITS. The FIN-FSA recommends that the risk management function analyses and forecasts the liquidity of the funds at least on a monthly basis and documents the analyses. Depending on market conditions and fund characteristics, it may be necessary to conduct liquidity analyses more frequently. In addition, the portfolio management function must monitor the liquidity of the fund with a view to the periods when the fund is open and take necessary actions based on internal guidelines to ensure liquidity.

Regulation necessitates that management companies also conduct backtesting in regular intervals. In the FIN-FSA's view, backtesting should be made at least on an annual basis. Backtesting should be made to ensure the appropriateness of the assumptions applied in the liquidity analysis.

The FIN-FSA reminds that the ESMA guidelines on liquidity stress testing in UCITS funds and alternative investment funds entered into force on 30 September 2020. According to the Guidelines, when building the stress test models, the fund manager must determine the factors that may impact the fund's liquidity (indicators), which must be monitored. The manager must determine the reporting of the stress testing results, outputs and indicators to management; and how the results are to be used by risk management, portfolio management and senior management. Stress testing must be carried out at least on an annual basis, but it would be advisable to do it quarterly or more frequently. Liquidity stress testing must be properly integrated and embedded into the fund's risk management framework and be subject to appropriate governance and oversight. The Guidelines also describe at a more detailed level how stress tests should be adjusted for each fund, what kind of scenarios must be applied and how funds' assets and liabilities are stress tested separately and in combination. The Guidelines also discuss limitations to data availability and how liquidity should be taken into account in product development. [17]

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[17] *ESMA Guidelines on liquidity stress testing in UCITS and AIF ESMA 34-39-882*

5 Pre-investment liquidity forecasts and analyses

Criteria

The management company shall ensure that the liquidity profile of each UCITS it manages is appropriate to the redemption policy laid down in the fund rules, instruments of incorporation or prospectus.[18]

The management company shall, when implementing its risk management policy, formulate forecasts and perform analyses concerning the contribution of the planned investment to the fund's portfolio composition, liquidity as well as risk and reward profile before carrying out the investment, where appropriate considering the nature of said investment.[19]

Securities subject to public trading[20] are considered to fulfil the requirement of adequate liquidity for the execution of redemptions[21], unless the management company is privy to information suggesting that the requirement is not met.[22]

The following factors should be considered on a security-by-security basis before making an investment:

- trading volume and turnover
- issue size, and portion of the issue that the asset manager plans to buy, evaluation of the opportunity and timeframe to buy or sell
- development of bid and offer prices over a period of time
- number and quality of intermediaries and market makers[23]

Findings

Findings of the first stage concerning pre-investment liquidity forecasts and analyses
In the first stage of the UCITS thematic review, 17 out of 23 management companies reported they perform pre-investment liquidity analyses at least for some asset class. Six management companies did not carry out analyses or forecasts for any asset classes.

The FIN-FSA requested analyses and forecasts for inspection from six management companies reporting that they conducted them. Two of these management companies failed to submit the requested analyses even though they had reported they conducted pre-investment liquidity analyses. One management company submitted its risk management principles including an addendum about when pre-investment liquidity analyses are to be made. In the analyses, the liquidity of investments was ascertained with data from Bloomberg, the average trading volume of the security was analysed relative to the size of the investment, and the cash position of the fund was reviewed. However, the FIN-FSA was unable to ascertain that all management companies that submitted analyses document their pre-investment liquidity analyses and forecasts appropriately.

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[18] FIN-FSA regulations and guidelines 3/2011, chapter 8.2, paragraph (14)
[19] FIN-FSA regulations and guidelines 3/2011, chapter 4.11, paragraph (70)
[20] Chapter 13, section 2(1)(1) of the Mutual Funds Act.
[21] Chapter 5, section 1(1)(2) of Decree 257/2019 of the Ministry of Finance
[22] Chapter 5, section 1(4) of Decree 257/2019 of the Ministry of Finance
[23] CESR Guidelines concerning eligible assets for investment by UCITS (CESR/07-044)

Findings of the second stage concerning pre-investment liquidity forecasts and analyses
In the second stage of the UCITS thematic review, seven management companies were requested to provide more detailed information on pre-investment liquidity analyses and forecasts. The respondents were requested to attach a document describing the procedure to their response.

It was found that management companies have different interpretations about when pre-investment liquidity analyses are considered to be completed. Some of the management companies deemed the analyses complete when the portfolio manager had checked certain liquidity-related factors even if the process or observations are not documented. Some of the management companies interpreted that no liquidity analyses had been made if they had not been documented.

One of the management companies included in the second stage reported it did not carry out any liquidity forecasts and analyses before investing.

Three management companies responded that the portfolio management function assesses the liquidity of new investments based on several factors before investing, but did not attach related internal guidelines or documented examples of pre-investment forecasts and analyses. A few management companies attached analyses of the ongoing monitoring of portfolio liquidity to their response. The management companies assessed the liquidity of new investments before investing in them by trading volume, issue size, credit rating, denomination currency, bid-ask spread and the size of investment, among other things.

Only one management company's risk management principles contained a description of pre-investment analyses and forecasts, but the management company did not provide any examples of analyses made. In addition, one management company provided an internal manual related to the assessment of liquidity risk of fixed-income instruments. The manual included criteria that must be fulfilled in order that the fund may proceed with the investment. One management company submitted examples of liquidity assessments it had made, but the FIN-FSA was unable to ascertain in which circumstances these assessments are actually made and documented.

Use of the liquidity presumption
The FIN-FSA noted in the UCITS thematic review that companies may not find it necessary to carry out liquidity analyses and forecasts for all securities before investing, since they are considered adequately liquid in all circumstances.

Based on the responses to the first stage of the UCITS thematic review, 13 management companies out of 23 do not perform liquidity analyses for certain securities since they are assumed liquid enough.

In the second stage of the UCITS thematic review, one management company out of seven applied the liquidity presumption to all securities subject to public trading. Two management companies applied the liquidity assumption to fixed-income instruments. One of them applied the liquidity presumption to all fixed-income instruments and the other to government bonds, supranationals and investment grade corporate bonds. The latter, however, ascertained whether the fixed income instrument involved features why a more thorough liquidity analysis would be warranted before investing.

FIN-FSA's view

The management company must always ensure that the liquidity profile of the UCITS is consistent with its redemption policy. It is worth considering that being subject to public trading does not automatically mean that the instrument is liquid in all circumstances, but the assessment must also cover its actual liquidity in exceptional market situations.

In the FIN-FSA's view, as a rule, the management company must at least check and document before making the first investment in a security factors affecting its liquidity (trading volume, size of issue, whether the asset is subject to public trading, manager of the issue, number of price sources) and subsequently decide whether the liquidity of the investment should be analysed and forecasted in more detail. These assessments should also reflect the impact of the planned investment on the liquidity of the fund as a whole. When an investment has been found liquid, the additional checks and analyses need not necessarily be repeated each time when investing in the same security. However, it is warranted to assess the liquidity of a given security on a regular basis.

The pre-investment forecasts and analyses must also reflect the fund's size, scope, nature and risk profile. The FIN-FSA finds that the pre-investment liquidity forecasts and analyses made by the management company must be documented appropriately.

The FIN-FSA considers that pre-investment liquidity forecasts and analyses cannot be only under the portfolio management function's responsibility. The management company's risk management function must control and monitor that pre-investment liquidity checks, forecasts and analyses are performed and documented appropriately. The FIN-FSA finds that the process related to pre-investment liquidity analyses must be part of the risk management principles of the UCITS or a separate guideline referred to in the risk management principles.

6 Availability of data and the assessment of reliability of data sources

Criteria

UCITS regulation defines the allowed investments and asset diversification requirements for UCITS at a detailed level. UCITS assets may only be invested in securities on which statutory and accurate information is available.[24]

The liquidity analyses must be made based on quantitatively and qualitatively reliable data.[25]

The management company must exercise due skill, care and diligence when entering into, managing or terminating any arrangements with third parties in relation to risk management activities.[26]

Findings

Findings of the first stage
In the first stage of the UCITS thematic review, management companies were asked whether they had procedures in place for checking on an ongoing basis that data is reliable and up to date. In addition, the

[24] Chapter 13 of the Mutual Funds Act and chapter 5, section 1 of the Ministry of Finance Decree (28 February 2019/257) on documents to be attached to the application for authorisation of a management company and depositary, remuneration schemes, fund prospectus and financial instruments referred to in chapter 13 of the Mutual Funds Act as well as the scope of information to be made available by a UCITS.
[25] FIN-FSA regulations and guidelines 3/2011, chapter 4.11, paragraph (70), and chapter 8.2, paragraph (11): "on the basis of appropriate and reliable information"
[26] FIN-FSA regulations and guidelines 3/2011, chapter 4.11, paragraph (71)

management companies were asked whether they had defined the criteria against which the reliability of information provided by third parties (such as counterparties) can be verified.

14 of the management companies reported they assessed the reliability and accuracy of data on an ongoing basis. Nine management companies reported that they do not perform ongoing assessment.

Six management companies defined the criteria for the assessment of reliability of data produced by a third party. The other management companies either had not defined the criteria or considered the requirement not applicable to them.

Findings of the second stage
In the second stage of the UCITS thematic review, management companies were requested to report the data sources used by them and to describe how the reliability of the data is ensured and accuracy tested.

All seven management companies reported the data sources used by them and how the data sources are assessed and the accuracy of data validated. The management companies had 1–3 data sources at their disposal, Bloomberg being the most widely used one. Three management companies reported they only use a single data source.

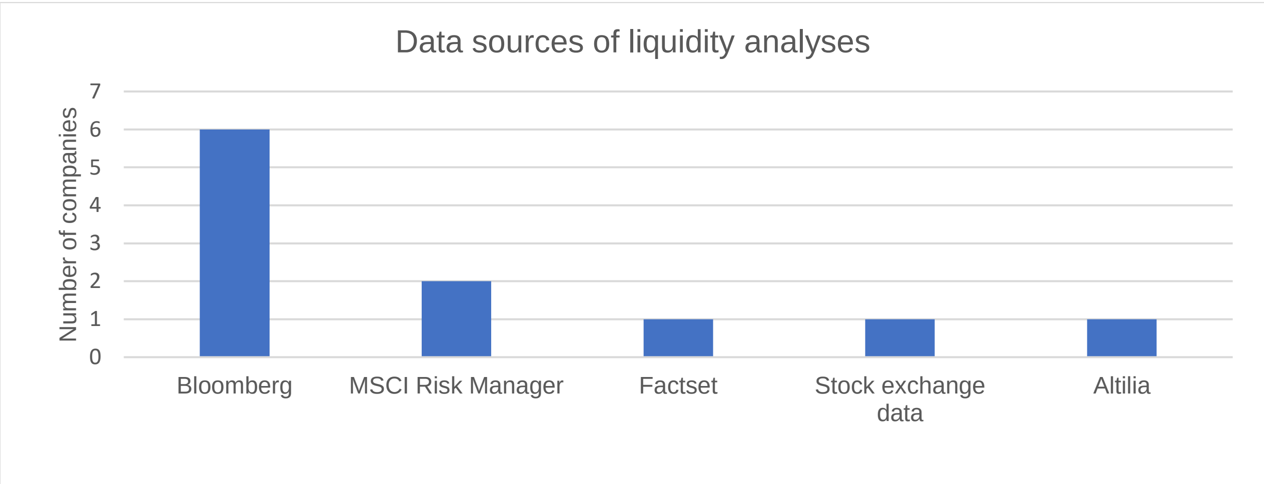

Chart 3. The majority of the management companies used Bloomberg as the data source for the liquidity analyses.

Most of the management companies reported they trust the data source but nevertheless perform validations of data reliability and accuracy. The FIN-FSA was unable to verify these validations since the management companies had not submitted the documents required in the verification.

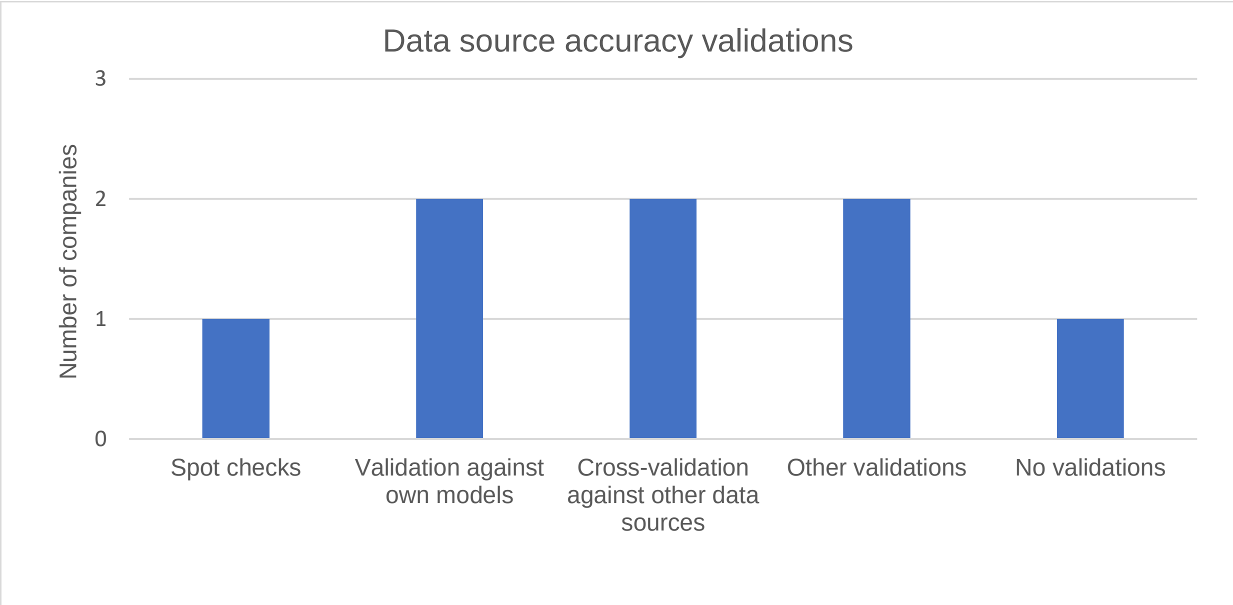

Chart 4. All but one management companies responded that they perform validations related to the accuracy of the data source.

FIN-FSA's view

The management company must assess the reliability and accuracy of available data on an ongoing basis. The risk management principles must specify the main data sources and include a description of how the reliability of data sources is tested and assessed. Management companies must define criteria enabling the critical assessment of price data provided by a counterparty, particularly in exceptional market situations.

Both portfolio management and risk management play a key role in the assessment of the data used. The reliability of price data may be assessed for example through spot checks, using portfolio management's market knowledge and comparing executed transactions on a daily basis to the prices provided by the data source. The validation of reliability may require the use of more than one verification methodology. The assessment of reliability is supported by daily monitoring of price changes and alert thresholds set for price movements.

Risk management should regularly assess the quality of price data provided by market participants, such as their ability to provide a price reflecting the market situation on a real-time basis instead of missing prices. In addition, a critical stance should be taken towards the validity of basic information on new securities and any subsequent changes therein. Also in this respect, cooperation between portfolio management, risk management and counterparties provides the best foundation for the assessment of the reliability of data and data sources.

7 Description of liquidity risk in the key investor information document

Criteria

The management company must draw up a concise document (key investor information document) on each UCITS it manages, which provides the fund's key information (such as risk and reward profile as well as instructions and warnings about the risks of UCITS) in a brief and to-the-point format. The information contained in a key investor information must be understandable to a retail investor without other documents.[27]

The risk and reward profile contained in the key investor information document describes the market risks the fund is exposed to. The investor must be provided a verbal description of liquidity risk. The verbal description must be included in the key investor information document, where a significant level of investment is made in financial instruments, which are sufficiently liquid by nature, yet which may under certain circumstances have a relatively low level of liquidity, so as to have an impact on the level of liquidity risk of the UCITS as a whole.[28]

Findings

Findings of the first stage
In the first stage of the UCITS thematic review, 17 out of 23 management companies stated they describe the liquidity risk associated with the UCITS verbally in cases where a significant share of the investments are made in securities which are adequately liquid by nature but whose liquidity level may be relatively low in certain circumstances and therefore affect the level of liquidity risk of the whole UCITS. Two management companies stated that this requirement does not apply to them.

Findings of the second stage
In the second stage of the UCITS thematic review, seven management companies described the liquidity risk of funds under their management verbally and reported how the accuracy of the description had been ascertained. The respondents were asked to attach the KIIDs for the UCITS funds investing in high-yield or investment-grade fixed-income instruments.

Only three out of seven management companies provided the KIIDs for 16 funds subject to the review as an attachment to their response, as requested. Therefore, the FIN-FSA decided to examine the KIIDs of the relevant funds based on information available in an online service as at 30 September 2020 (Source: Morningstar). On that date, the KIID of ten funds included a verbal description of liquidity risk; two funds' KIID mentioned liquidity risk without describing it, and four funds' KIID did not include any mention or description of liquidity risk.[29]

FIN-FSA's view

As a rule, UCITS funds are liquid investment vehicles. However, the management company must assess specifically with respect to each fund whether it involves some special liquidity risk.

[27] Chapter 15, section 4 (1) of the Mutual Funds Act.
[28] Commission Regulation (582/2010) of 1 July 2010, implementing Directive 2009/65/EC of the European Parliament and of the Council as regards key investor information and conditions to be met when providing key investor information or the prospectus in a durable medium other than paper or by means of a website; Article 8(5).
[29] Only three out of seven management companies provided the requested KIIDs attached to their response. Therefore, the FIN-FSA examined the KIIDs of the relevant funds based on information available in an online service as at 30 September 2020 (Source: Morningstar).

The assessment must be based on the liquidity of the underlying investments and be based on an adequate number of factors. In the FIN-FSA's opinion, if a security is subject to public trading on a regulated market, it does not mean as such that it is liquid. Neither does the credit rating of an issuer or security, or the lack thereof, alone provide an indication of liquidity, since for example changes in the issuer's financial position may have an impact on the liquidity of the credit obligation.

A warning about liquidity risk should not be added to the KIID of every fund just in case, as it must be based on the management company's actual assessment liquidity risk in order for the investor to be able to compare key information on different UCITS.

Furthermore, the content of liquidity risk must be opened in the KIID at least with one sentence; the mere term liquidity risk is not enough to ensure that the investor understands the true nature of the risk. This also applies to other verbal warnings (such as interest rate risk and credit risk) referred to in the KIID.

8 Summary of key findings of the second stage of the UCITS thematic review

Organisation of liquidity risk management

- In all of the management companies, the risk management function is responsible for the monitoring of liquidity risk.
- Four out of seven management companies report regularly to the operative management and board of directors of the company on the UCITS' liquidity risk.
- Only a few management companies had an escalation process for overruns of liquidity risk limits.

Ongoing liquidity monitoring

- Five management companies reported they prepare liquidity forecasts of asset liquidation times in scenarios where a specific predetermined group of investors redeems their units concurrently.
- A few management companies failed to assess adequately factors related to unitholders in the context of ongoing control.
- Only a few management companies had defined fund-specific liquidity risk limits to be monitored in the context of ongoing fund liquidity monitoring.

Pre-investment liquidity forecasts and analyses

- Based on the responses, pre-investment liquidity risk forecasts and analyses were primarily under the portfolio manager's responsibility.
- None of the management companies documents their pre-investment liquidity forecasts and analyses in an appropriate manner.

Availability of data and the assessment of reliability of data sources

- Six management companies reported they conduct some checks concerning data validity, but based on the material received, the FIN-FSA was unable to validate these checks.

Description of liquidity risk in the key investor information document

- For a majority of UCITS assessed in the thematic review, liquidity risk was described adequately in the KIID.

9 Liquidity management and valuation challenges in spring 2020 (during the COVID-19 crisis)

Background

In addition to the UCITS thematic review, in summer 2020, the FIN-FSA conducted the ESRB thematic review described in section 2 for four management companies and four alternative investment fund managers which managed funds meeting the following criteria:

- UCITS funds investing in corporate debt with assets under management (AUM) in excess of €1 billion as at 31 December 2019 (below “corporate bond funds”)
- Non-UCITS fund investing in real debt with assets under management (AUM) in excess of €500 million as at 31 December 2019 (below “real estate funds”)

In accordance with the established criteria, the ESRB thematic review examined how these funds coped with the market events related to the coronavirus crisis of spring 2020 and what is their preparedness to face new challenging market situations. Eight corporate bond funds and five real estate funds registered in Finland were selected to the survey.

The UCITS thematic review also examined the impacts of the corona crisis on liquidity management by Finnish UCITS. This section includes findings from both supervisory initiatives.

Findings

It was found in the ESRB thematic review that the funds reviewed coped with the corona crisis relatively well in terms of liquidity management. Three out of four of the corporate bond funds under review reported that corporate bond funds managed by them were subject to significant redemptions in February-March 2020, but also in these funds, the management companies were able to keep the portfolio structures, for example as regards asset allocation, very close to the situation at the outset (31 December 2019), before the start of the corona crisis. The level of cash or impaired ability to liquidate investments did not pose an obstacle to fulfilling redemptions or making payments to customers within the deadlines set in the fund rules. Only one of the real estate funds included in our survey reported of large redemptions during the early part of the year.

There was no large-scale preparedness among corporate bond funds to use special liquidity management tools, such as suspended redemptions, short-term borrowing and swing pricing in the context of subscriptions and redemptions, during the coronavirus crisis, even though the use of these tools would have been possible in accordance with the Mutual Funds Act. However, some management companies in Finland reacted rapidly to the situation by introducing various liquidity management tools into their fund rules. The FIN-FSA processed fund rule amendments concerning liquidity management tools on an urgent basis and they were enforced at an accelerated pace.

In the second stage of the UCITS thematic review, three out of seven management companies reported that they had not yet made changes to their liquidity management tools as a result of the situation seen in the spring, but two of these companies were also planning changes. In early 2021, the liquidity management tools allowed by Finnish UCITS’ rules vary considerably, although the situation is better than at the beginning of the year 2020. Four out of the seven management companies reviewed in the second stage of the UCITS thematic review had employed at least one of these tools in spring 2020.

None of the management companies covered by the UCITS thematic review reported they had been forced to liquidate their funds' assets, as any divestments resulting from redemptions were controlled and could be executed without compromising the unitholders' interests.

In connection with the ESRB thematic review, the FIN-FSA carried out stress tests on the funds reviewed based on data submitted by them to ensure that their liquidity is adequate. In these stress tests, all corporate bond funds passed the redemption coverage ratio test, which is based on the proportion of liquid asset classes in the portfolio. The second test was based on a simulated redemption shock and the management companies' own assessments of the liquidation periods of the assets. In this test, two funds out of eight would have been unable to fulfil redemptions immediately in a market stress situation. However, even in this scenario all funds would have been able to pay the redemptions within a month. The results were affected by the management companies' different practices in assessing fund liquidity, and therefore the results cannot be considered fully comparable across companies. As regards real estate funds, a stress test based on a redemption shock indicated that all real estate funds were able to meet the requirements of the stress test. The stress test for real estate funds accounted for their lower redemption frequency and possibility to apply liquidity management tools, except for the possibility to suspend redemptions and subscriptions.

During the corona crisis, 37 funds registered in Finland suspended subscriptions and redemptions. The duration of the suspension varied across the funds from 1 to 8 days. The suspensions were due to challenges experienced by the funds in the reliable valuation of the fund. In the ESRB thematic review, five out of eight corporate bond funds also stated they had experienced challenges in the valuation of their investments. These valuation challenges were mainly managed successfully by applying the processes established for exceptional circumstances or by making minor adjustments to the valuation methodologies. Challenges were also faced by the external appraiser of the real estate funds; therefore a statement was added to real estate valuation reports that the values involve exceptional uncertainty.

At the end of June 2020, all management companies included in the ESRB thematic review considered that their operations had normalised.

Conclusions

The FIN-FSA finds that management companies should ascertain that the rules of funds under their management allow adequate use of liquidity management tools provided by fund regulation, as regards funds where the use of liquidity management tools is appropriate. Before resorting to liquidity management tools, management companies must also ensure the quality and adequacy of their processes, systems, the competence of the personnel and resources. In addition, management companies should pay special attention to internal flow of information and clear reporting relationships in order for portfolio management to be able to anticipate incoming cash flows as well as possible.

ESMA has highlighted three priority areas for national competent authorities to consider in their supervisory work:

- Alignment of funds' liquidity profile and redemption policy
- Identification of liquidity risks and the ability of companies to assess them.
- Performance of fund valuation processes also in challenging market conditions.

Finally, ESMA highlights two areas of development in European regulation:

- Reporting of funds' liquidity profile
- Preparedness to use liquidity management tools

The report published by ESMA: https://www.esma.europa.eu/sites/default/files/library/esma34-39-1119-report_on_the_esrb_recommendation_on_liquidity_risks_in_funds.pdf

10 Subsequent actions

The FIN-FSA requires that its findings and views are taken into account and that management companies' processes and actions are updated to the level required by regulation. The FIN-FSA also requires that the findings and views of this supervisory letter are addressed on the board of directors of the companies involved in the thematic review. Management companies shall draw up a plan of actions and the Board of Directors shall monitor how the necessary measures are implemented. The FIN-FSA will monitor and, where appropriate, request further clarifications of the planned measures as part of ESMA's supervisory scheme.