

The PwC ALLERT¹ Report Liquidity



The recent financial crisis highlighted the fact that the importance of Liquidity Risk Management, as well as the severity and swiftness with which this risk can materialise, had been severely underestimated by the industry, markets and regulators alike.

Liquidity Risk
Management for
Investment funds

What the regulator requests

Regarding the Asset Management industry, both UCITS IV and the AIFMD include the concept of Liquidity Risk in their guidelines. CESR's (now ESMA) level 2 and level 3 guidelines (issued in the context of UCITS IV) clearly emphasise liquidity risk by mentioning it right after market risk in the description of the risks that at least should be covered by the Risk Management Process (RMP).

Also, the commission directive 2010/43 EU (transposed in Luxembourg in both the Règlement CSSF 10-4 and the CSSF circular 11/512) specifies that the Management Companies must use an appropriate Liquidity Risk Management process (including stress tests) in order to guarantee the right for shareholders to redeem their shares. The AIFMD dedicates a full paragraph of its global framework to Liquidity Risk Management.

How liquidity impacts investment funds?

Asset side

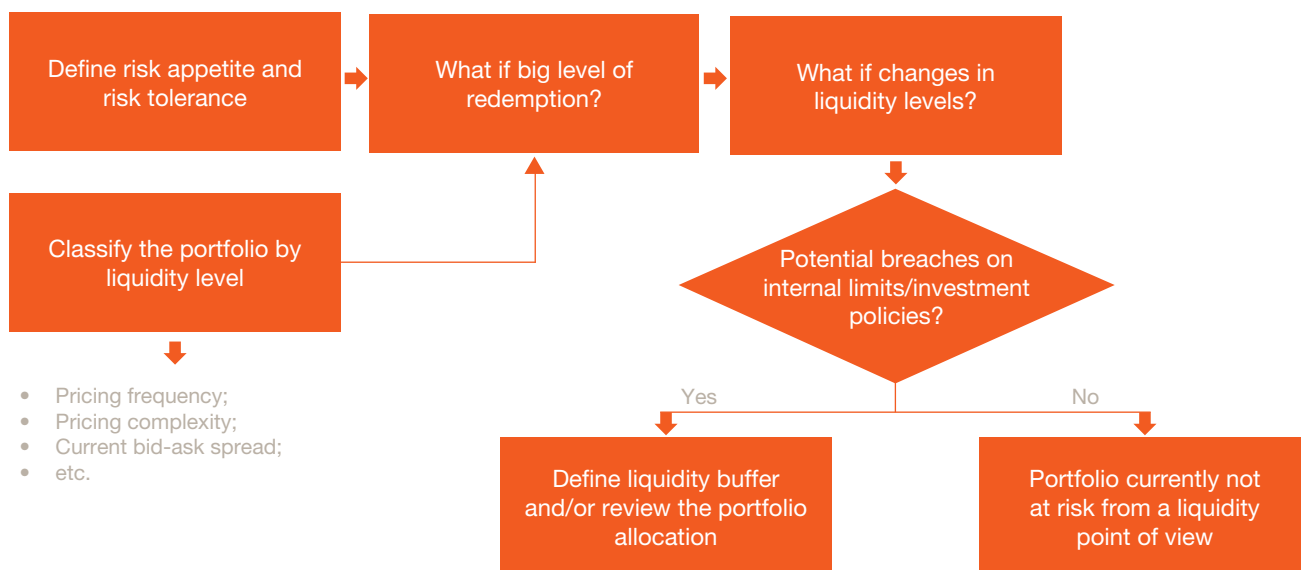
Also called market/product Liquidity Risk, the asset liquidity risk arises when transactions cannot be conducted at quoted market prices due to the size of the required trade relative to normal trading lots.

Liability side

The liability liquidity risk arises when the fund cannot meet the redemption payment or is able to do so but with such an investment deviation that it could generate claims from the investors.

¹ ALLERT stands for Asset and Liability Liquidity Expected Ratio and Trend

How to approach liquidity risk in the investment fund industry?



How to monitor and manage the portfolio liquidity risk?

Asset side

The common liquidity indicators used to assess the liquidity of the securities (Average traded volume, bid-ask spread, LVAR, etc.) suffer from different drawbacks.

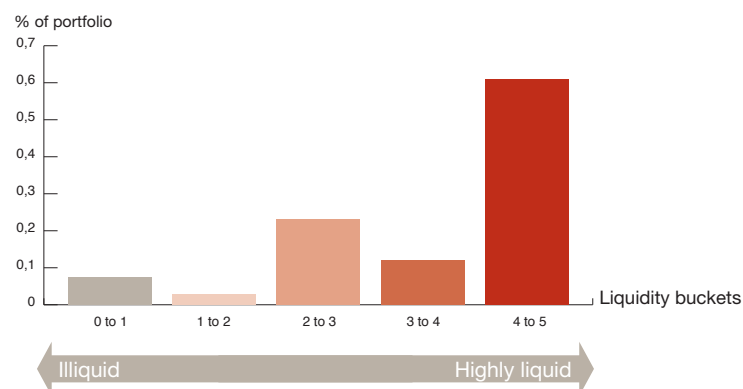
Therefore, instead of relying on single indicators, PwC has extended the scope of liquidity indicators and selected the following ones:

- Average traded volume/% of shares held
- Stale prices
- Credit ratings – LOT
- Number of market/Number of pricing providers
- Bid-ask
- Stressed bid-ask
- Kyle's Lambda

Then, in order to adequately weight them, and create a valid benchmark, we have selected a broad range of fund portfolio (more than 80) and computed the value of all these indicators for each portfolio lines (more than 7,000 securities and 35,000 lines of financial data).

By using the Principal Component Analysis (PCA) method, when then scientifically defined the weight of the different indicators as well as the global liquidity scale.

Portfolio - Liquidity buckets



Liability side

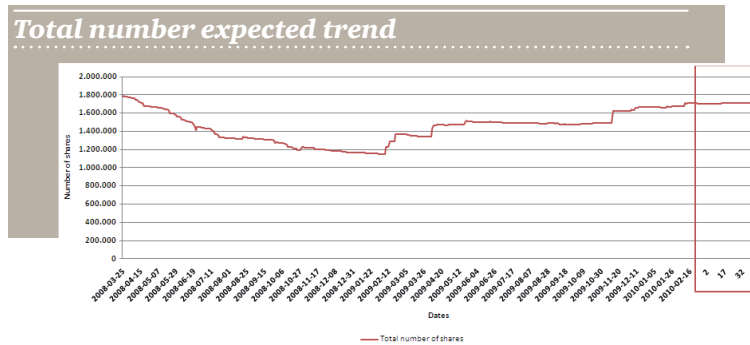
Forecasting the investors behaviour is key in liquidity risk management for investment funds but remains a challenging task when considering the low level of transparency on investors.

Bearing that in mind, they are still ways of defining potential trends in subscriptions and redemptions.

The past evolution of the number of shares can be used as an indicator of what could happen in the future. But, in order to remain reliable, these analyses need to be based on strong and relevant statistical techniques.

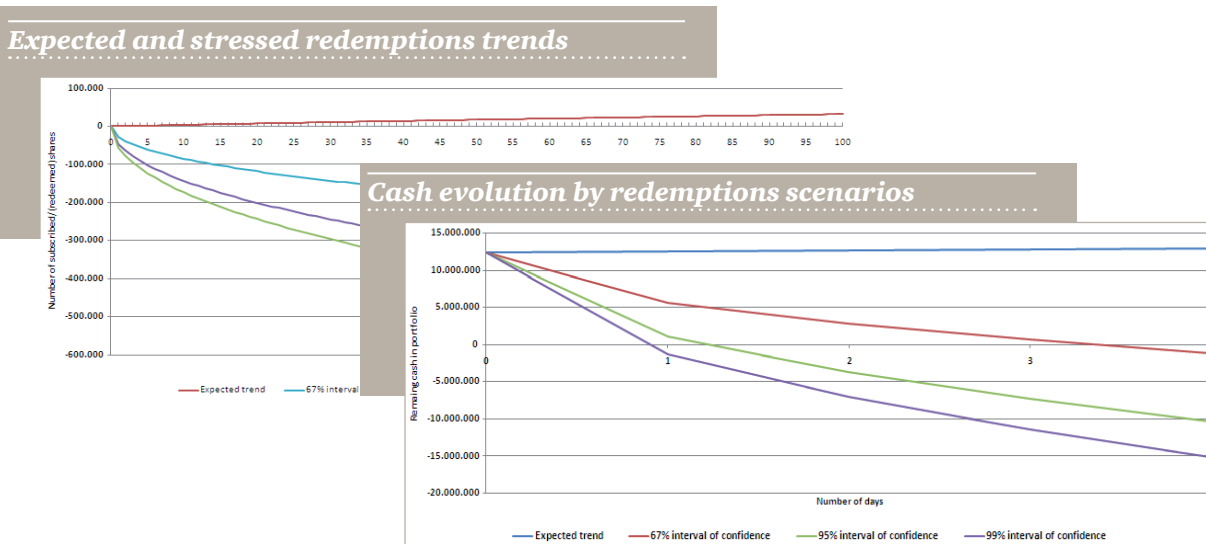
The approach that we have selected is based on a structured technical approach relying on Time Series Analysis.

Based on the historical trends of subscriptions and redemptions, we define the function that best fits the past distributions to generate reliable forecasts.



The question that we need to answer is not limited to the potential future forecast but should be extended to potential stress in redemptions. Therefore, based on the level of noise measured in the previous step and using the Pindyck - Rubinfeld approach, we determine different stress scenarios aligned with past investors behaviour using different intervals of confidence.

Finally, we link these stressed trends to the amount of cash currently available in the fund to determine how long redemptions will not affect the portfolio.



PwC ALLERT Liquidity

The new regulations regarding liquidity risk pose considerable challenges to the fund industry in various aspects. And as far as the regulations are concerned, it must be pointed out that the regulator is not providing any recommendations on how to meet these new requirements.

Therefore, in order to support client in this new challenge, at PwC, we have developed a new approach summarised in a comprehensive report called: **The PwC ALLERT report.**

ALLERT stands for Asset and Liability Liquidity Expected Ratio and Trend as this report provides you with information on the liquidity of the

portfolio as well as expectations in terms of subscriptions and redemption both in terms of ratio and future trends.

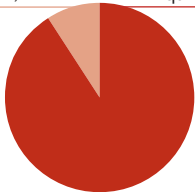
In order to ensure the efficiency of the process, we will provide you with this report duly filled meaning that your risk team will not spend time on the production of the report but capitalise on their expert judgment to complete, challenge and interpret the results.

Also, as we want this report to be tailored to your needs, we follow a modular approach: you only pay for the module(s) you need.

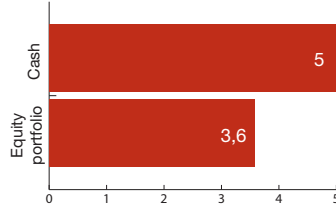
The following example illustrates how your report could look like.

Portfolio - Asset allocation

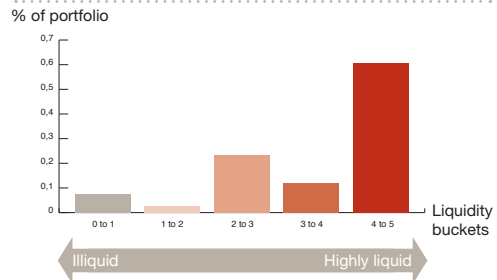
Cash: 9,05% Equities: 90,95%



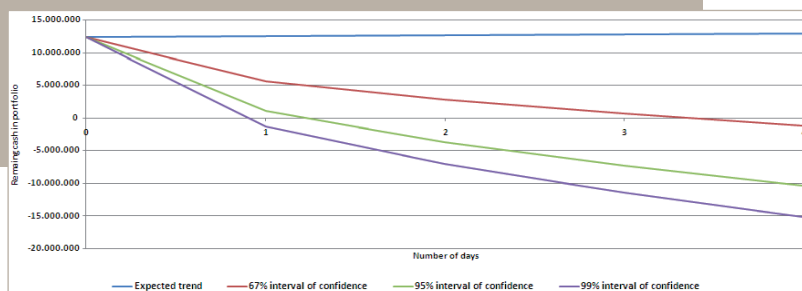
Global portfolio Liquidity



Portfolio - Liquidity buckets



Cash evolution by redemptions scenarios



How we can help

Our specialist team members have a strong expertise gained as consultants and through their experience within the financial industry. As a result, they are able to quickly understand your concerns and provide you with tailored and proportionate solutions.

Why PwC Luxembourg?

PwC Luxembourg (www.pwc.lu) is the largest professional services firm in Luxembourg with over 2100 people employed from 53 different countries. It provides audit, tax and advisory services including management consulting, transaction, financing and regulatory advice to a wide variety of clients from local and middle market entrepreneurs to large multinational companies operating from Luxembourg and the Greater Region. It helps its clients create value by giving comfort to the capital markets and providing advice through an industry focused approach.

To get started, call

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