Financial risk management for pension plans in times of the Coronavirus

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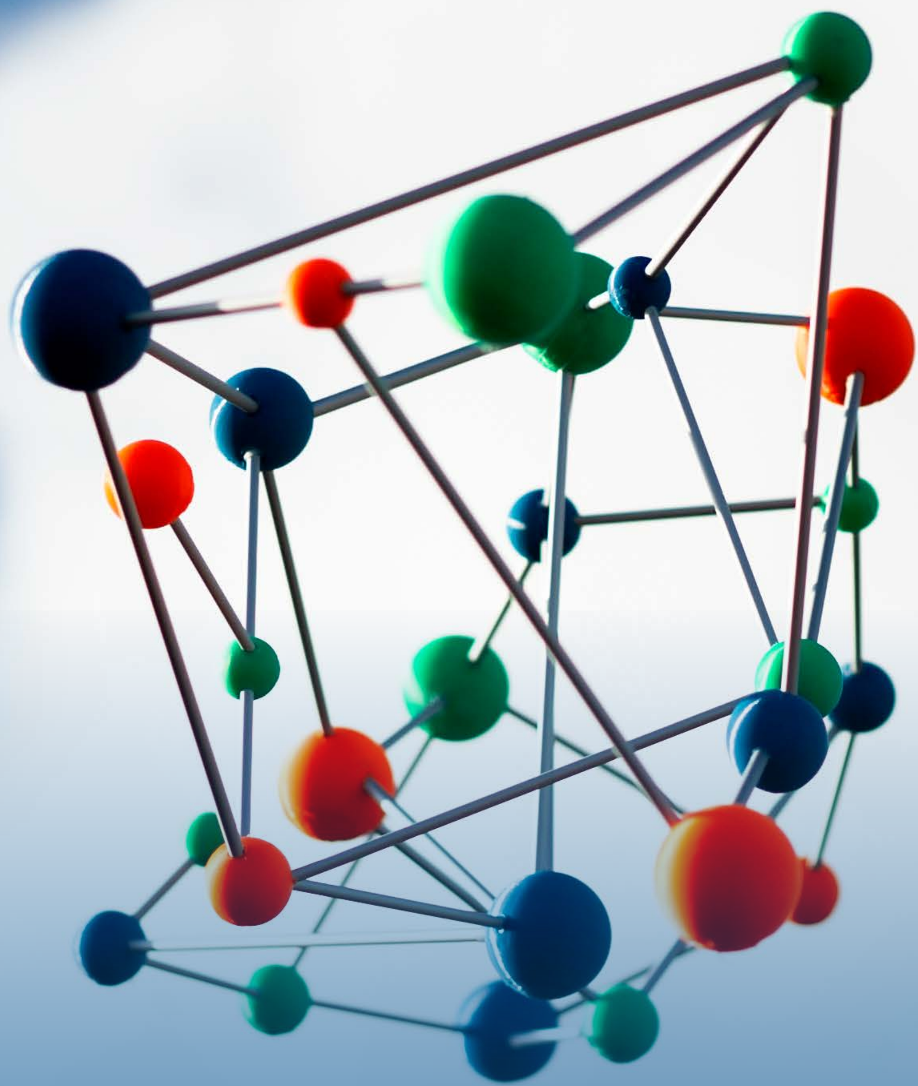

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The outbreak of the Coronavirus has resulted in financial, economic and health risks globally. Subsequent financial market uncertainty has meant sharply negative stock price movements, significant jumps in credit spreads, illiquidity and increased interest rate volatility are now a part of everyday life.

This has profound implications for institutional investors worldwide, as pension funds are confronted with lower funding levels and breached allocation bandwidths and risk limits. To partially mitigate this, Governments and Central Banks have intervened in an attempt to dampen the negative economic impact of the outbreak.

Since the previous financial crisis, much more emphasis has been placed on strategic risk management in the Pension Industry. Whether or not these efforts pay off in this crisis, remains to be seen. In this article we discuss what we see as the main challenges for the strategy and risk teams at pension funds and provide some suggestions on how best to approach this unique situation.

4 challenges pension risk and strategy managers face during a crisis:

1. Breach of risk limits

2. Breach of allocation bandwidths: when and how to rebalance?

3. Extraordinary economic and financial market conditions

4. The role of financial risk and strategy managers

1. Breach of risk limits

Many pension funds face a breach of short and long-term risk budgets as a result of the current financial climate. We believe that our models are well positioned to assist pension funds during these uncertain times and provide insights into the evolution of important economic drivers and the implications for the balance sheet of asset owners. These improvements and the role of models in times of crisis are described in a blog written by Hens Steehouwer and Paul van 't Zelfde.

"The extreme market movements seen in March 2020 painfully remind us of economic behaviour observed in previous crises."

Examples of these observable phenomenon in the markets which are substantiated by academic research are sometimes called robust empirical laws or stylized facts, **examples of which are:**

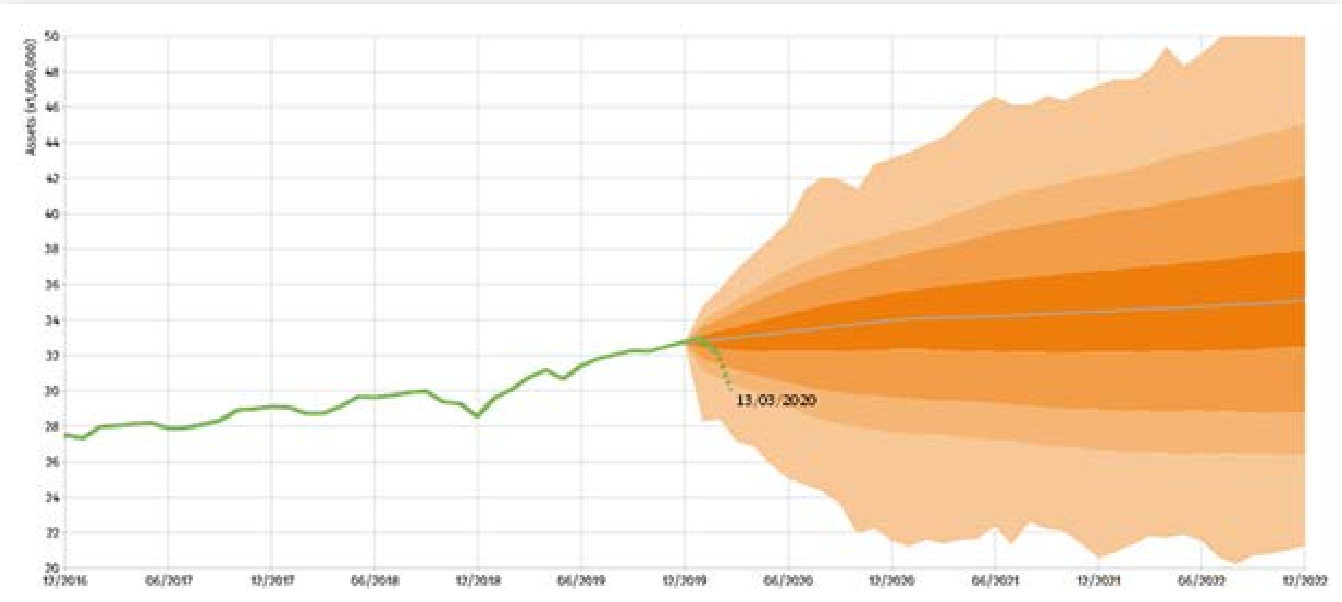
- Short-term investment returns are much more negative in a crisis than the positive returns in bull markets (skewed and fat-tailed distributions).
- Increased volatility and a lack of diversification (high correlations) in times of crisis.

Incorporating these robust historic relations in our model enables risk and investment strategy teams to more realistically assess the risks in their portfolios. This means that risk budgets and limits can be set more accurately. However, even if the portfolio risk is appropriately assessed, risk limits can still be breached due to the severity of the market movements.

By way of an example, the shocks observed in the last few weeks are only expected to occur once or twice every 100 years and it is very likely that these have exceeded the limits set by pension funds.

During these challenging times, it is important to follow the investment beliefs and governance processes in place. Bear in mind that regulators may consider temporary crisis measures and relax regulations. Our guidance would be to remain calm and consider the options available.

- Stick to the plan. Follow the guidelines of the current strategy and de-risk or rebalance the portfolio accordingly, given the updated market information and regulatory framework.
- Reconsider the risk appetite, the investment strategy and the corresponding risk limits. This requires going through the appropriate governance processes to align the stakeholders and understand the consequences for the short term and long-term objectives.
- Take the perspective of a long-term investor, maintain the portfolio and carefully evaluate the new situation before making any investment decisions.



Portfolio of 15 billion Euro at the end of 2005 simulated forward on a monthly basis assuming an investment strategy with an asset allocation of 50% fixed income (60% government bonds, 40% corporate bonds), 25% global equities and 25% alternatives (including real estate), bi-annual rebalancing and a quarterly 50% hedge of all FX risk. The green line represents the realized value of the portfolio until the end of February 2020 with an estimate until mid-March in terms of the dotted line.

2. Breach of allocation bandwidths: when and how to rebalance?

Extreme market movements cause significant changes in the asset allocation proportions and potentially result in breached allocation bandwidths. In normal circumstances, portfolios are rebalanced annually or monthly or when bandwidths are exceeded. Often different rules could apply based on the liquidity of the assets.

A key question that Pension schemes and asset managers should ask themselves is whether the current extreme situation justifies a deviation from their rebalancing strategy. Aspects to consider are limited liquidity and potential high transaction costs, but also a more subdued economic outlook could be taken into account to inform rebalancing decisions. The consequences of these effects may conflict with the rationale of a rebalancing strategy built on cyclicality in normal market circumstances.

If the pension plan wants to deviate from its normal rebalancing strategy, several options could be implemented.

- Spread transactions out over a longer time horizon.
- Reduce the size of the transactions by rebalancing to the edge of the bandwidth.
- Rebalance on a best effort basis restricted by costs.
- Consider buy and hold, by temporarily postponing rebalancing and avoiding knee jerk short-term decisions. It is sensible to build in a go or no-go framework before the rebalancing implementation to evaluate the latest market conditions. If volatility and illiquidity suddenly increase, it might make more sense to delay or even cancel the transaction.

Rebalancing decisions should be in alignment with the risk appetite and the decision on how to act in relation to the risk budget.

Loranne van Lieshout further elaborates on these items in her blog on rebalancing for Dutch Pension plans.

3. Extraordinary economic and financial market conditions

It is undeniable that periods of extreme market volatility result in challenges for pension fund risk managers and strategists. Here are just some of the recent developments, which have placed strain on pension funds and the teams managing them.

Central banks in developed markets have taken emergency steps to keep money flowing through the financial system and further measures are on the table. Mid-March, a clear bond sell-off was visible when investors prioritized liquidity over safe-haven investments. Governments promised massive state intervention in order to dampen negative economic impact, despite rising budget deficits. The sovereign yields and their movements reflect the systemic risk present in each country.

In assessing some of the key focus areas in light of these events, the following are some of our thoughts. For corporate debt, an important risk lies in reduced opportunities and conditions for refinancing and likely rating downgrades. Equity investments show more risk, as further globalization over the past decade reduces diversification benefits between countries. Some differentiation between sectors remains in place. Finally, real assets seem to play their traditional role as short-term diversifiers during crises. For the medium and longer term, we do expect a negative impact on the valuations for those asset classes as well.

This brings a new dimension to economic and financial market risk assessments, and therefore a new dimension to applying traditional investment and risk management tool at pension plans.

4. The role of the risk team and strategy managers

Risk teams and strategy managers have a vital role at pension funds in periods of crisis.

The current crisis may require additional efforts on top of the current risk reporting processes, which are in place Ortec Finance places specific focus on the role of quantitative analysis for pension plans with existing Asset Liability Modelling (ALM) and risk management tools.

To view best practices on this for Private Wealth Management Clients, please see Ronald Janssen and Rutger de Wit's blog.

During the initial phase of the crisis, management, boards, and multi-disciplinary crisis-teams rely on frequent and up to date information and projections of the Fund's funding status and other key metrics. At this stage, instant market shock analysis is often used to accurately evaluate the impact of the most important risk drivers. What is the current funding level, and how severe is the impact if equities fall further in conjunction with declining interest rates? Or what is the impact if equities fall while yields rise? The daily changing situation requires a robust and consistent approach that benefits from appropriate calculation tools. It is important to generate these insights with up-to-date asset portfolio data and interest rate hedge ratios.

Secondly, it is relevant to start preparations for a revised one or two-year business plan. Up to date stochastic scenarios that include current market circumstances and realistic projections of risk and return, complemented by deterministic Coronavirus stress scenarios can provide valuable insights for this purpose. Important elements to incorporate are the impact of Government and Central Banks' policy response, sentiment impact and limited liquidity. Scenario thinking aims to provide insight into the possible future situation of the fund. This facilitates board and management discussions about strategy, risk appetite and the assessment of policy alternatives.

Finally, as a long-term investor, it is crucial to evaluate the long-term strategy and the objectives in a new financial climate. The outbreak and related preventive measures will have a significant impact on the real economy. To this date (March 2020), it is still unclear how sizeable the consequences will be and how long the economy is going to be affected. Preventative measures may last for a few years and there are various spillover effects. The latter could be a reason to adjust the capital market risk and return assumptions, and revise the long-term pension policy framework and risk appetite through a long-term strategy review or ALM analysis.

At the time of writing this article, circumstances are still very volatile. We, at Ortec Finance will continue to provide updates regarding best practice and to support the pension industry as best possible.

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