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Investment Consulting

Application help

How to determine the expected net return according to FRP 4

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Introduction

- According to the new FRP 4 guideline, the expected net return of an investment strategy has to be taken into account explicitly when determining the actuarial interest rate.
- The estimate of the expected return has thus become more consequential.
- In the following presentation we will show you a possible estimation approach.

Overview of the new FRP 4

- The Swiss Chamber of Pension Actuaries issued a **new guideline for the determination of the technical interest rate (FRP 4)** at the general meeting on 25 April 2019.
- On 20 June 2019, the Occupational Pension Supervisory Commission has declared FRP 4 the **minimum standard** for all financial statements as of 31 December 2019.

- According to the new FRP 4, the **technical interest rate** should be **lower than the expected net return** of the investment strategy, including an appropriate margin.
- When determining the technical interest, the pension fund expert should also consider the «**structure and characteristics**» of the pension fund.
- As a further component, FRP 4 defines an **upper limit** for the technical interest rate.

Determination of the expected net return

Two approaches to determining the expected net return (1)

- We determine the expected net return using two different approaches:
  - ➊ **Expected net return (PPCmetrics)**
  - ➊ **Expected net return (normalised risk premium at 2.5%)**

➊ Expected net return (PPCmetrics)

- This estimation is based on the current interest rate of a **10-year Swiss Government bond** (current risk-free interest rate).
- To this risk-free interest rate, **a risk premium** is added which is derived separately for each asset class as best estimate according to our **economic fundamental model.** If requested, we will be pleased to provide you with our documentation “PPCmetrics return/risk assumptions 2019".
- In order to determine the net return, we estimate the **costs of a passive realisation** of the investment strategy. This is consistent with the definition of FRP 4, which explicitly refers to the net return of the *investment strategy*. The scope is hence on the costs of a mere implementation of the investment strategy - not on the actual operational implementation (e.g. via active mandates).

Two approaches to determining the expected net return (2)

❷ Expected net return (normalised risk premium at 2.5%)

- Similar to the derivation of the PPCmetrics expected net return, we define the regulatory expected net return as a combination of risk-free interest rate and expected risk premium, minus asset management costs.
- We estimate **asset management costs** in the same way as in our approach to estimate the PPCmetrics expected net return.
- However, the **risk-free interest rate** and the **risk premiums** are calculated as best estimates based on the method defined in FRP 4 to determine the upper limit for the technical interest rate.
  - FRP 4 defines the **risk-free interest rate** as the average spot interest rate of the 10-year Swiss Confederation bonds of the last twelve end-of-month-values as of 30 September.
  - We interpret the derived surcharge on the risk free rate of 2.5% as an indication for the **expected risk premium**, as this surcharge is explicitly described as the difference between the return of a 10-year Swiss Government bond and the return of the Pictet BVG-40 Plus index (cf. comments on Chapter 3, FRP 4). Based on this approach, we normalise the PPCmetrics risk premiums so that an investment strategy following the Pictet BVG-40 Plus index results in a risk premium of exactly 2.5%.

Conclusion

- **Both approaches** are **suitable** for determining the net return of your investment strategy for the purpose of determining the technical interest rate.
- The **advantage** of the **PPCmetrics expected net return** is foremost its scientifically sound derivation. For this reason, we recommend that the pension fund's risk management should be based on PPCmetrics expected return.
- The **advantage** of our **alternative approach** resides in the lower dependence on the valuation date, which conceptually aligns this estimate with the valuation of pension liabilities from a financing point of view.

- You may use the PPCmetrics FRP 4 calculator to estimate the range of possible technical interest rates using the link below:
- **https://www.ppcmetrics.ch/de/themen/frp-4-technischer-zinssatz/frp4-rechner**

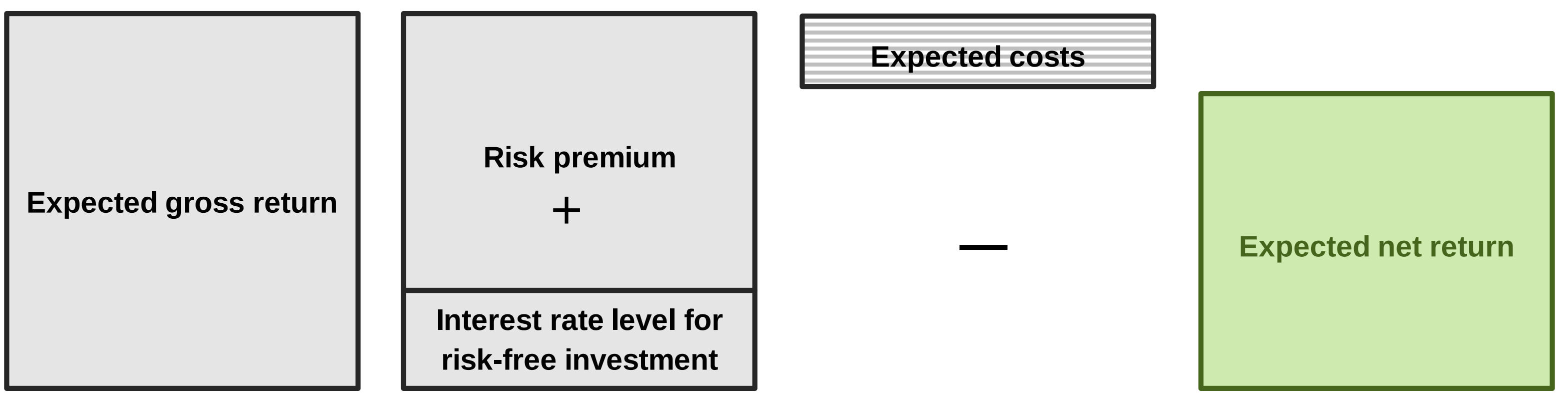
Annex

Asset Management Costs (1)

PPCmetrics approach

- We estimate all **expected returns net of asset management costs.**
- In the case of **real estate** and **alternative investments** cost-effective (passive) implementation is generally not possible. The expected costs therefore represent a significant part of the expected gross return. Therefore, based on our experience, the estimated **costs** of these asset classes are **deducted directly from the estimated gross returns**.

Example of calculation of expected return for alternative investments and real estate:



Asset Management Costs (2)

PPCmetrics approach

- In the case of **more liquid asset classes** a more cost-effective (passive) implementation is generally possible.
- To calculate the expected costs for these asset classes, we apply a **volume-based estimate** (the higher the volume, the lower the costs tend to be).
- This estimate is deducted from the weighted expected return on total assets.
- This approach is based on the assumption that clients with more costly implementations have a gross return expectation that excels the cost-efficient (passive) implementations by the return of the cost.
- When determining the net returns, **the pension fund's specific TER** (Total Expense Ratio) **is not taken into account** as FRP 4 explicitly refers to the strategy return.

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