

IR+M Funded Status Monitor

Last Updated: February 23, 2022

Contents

- Objective 1
- Inputs and Methodology..... 2
 - Average Plan 2
 - Average Plan Liability 2
 - Average Plan Assets 2
 - Average Plan Funded Status Attribution 3
 - End Stage Plan..... 3
 - End Stage Plan Liability 3
 - End Stage Plan Assets 3
 - Young Plan 3
 - Young Plan Liability 3
 - Young Plan Assets 4

Objective

For plan sponsors committed to a de-risking journey, it is critical to regularly track the health of their pension plans. They must act efficiently and accordingly as risks and market environments evolve. To better serve our Liability Driven Investing (LDI) clients, we developed our own proprietary funded status calculator. We believe the transparency and timeliness afforded through an in-house model will help drive deeper and more meaningful conversations with our clients.

The IR+M Funded Status Monitor captures the month-over-month impact of interest rates and market returns on funded statuses. Recognizing the diversity and breadth of clients that we serve, our Monitor calculates month-end funded statuses for three different illustrative sample plans: an end stage (i.e., closed to new entrants and frozen accruals) plan, an average (i.e., closed and accruing) plan, and a young (i.e., open and accruing) plan. These sample plans are intended to serve as guideposts so individual sponsors can assess a reasonable monthly funded status change for their own plans.

The calculated funded status information is published in our monthly [LDI Monitor](#) along with relevant interest rate statistics, commentary on the long fixed income market, and our insights on the defined benefit and LDI space. The inception date for our proprietary funded status calculations is December 31, 2019.

Inputs and Methodology

On an annual basis at year-end, the LDI team will evaluate and revise, if needed, the profiles for our three sample plans.

	End Stage	Average	Young
<i>Target Liability Duration (Years)</i>	8-10	12-14	15-17
<i>Funded Ratio at Inception</i>	100%	89.8%	80%
<i>Growth Assets Allocation (%)</i>	10	50	70
<i>Fixed Income Allocation (%)</i>	90	50	30

Table 1: 2022 Assumptions

All plans are assumed to have traditional benefit formulas with annuity only payment forms (i.e., no lump sums).

We leverage Moody's PFaroe to calculate our month-end funded statuses.

Average Plan

The Average Plan is intended to represent a typical US corporate defined benefit plan. It is closed to new entrants but still accruing a service cost for certain active participants. The funded ratio at inception of December 31, 2019 uses the applicable Milliman Pension Funding Index calculated funded ratio as of the same date (i.e., 89.8%).

Average Plan Liability

Sample projected benefit obligation (PBO) liability cash flows were developed to target the desired duration of 12 to 14 years. The service cost is assumed to be approximately 1.5% of the PBO. The PBO cash flows are discounted using the FTSE Pension Liability Index and the resulting single effective discount rate for the average plan is published in the IR+M LDI Monitor.

Average Plan Assets

The strategic asset allocation is comprised of 50% growth assets and 50% fixed income, as detailed below. The asset allocation is rebalanced to strategic weights at each month-end. Monthly index returns are sourced from Moody's Pfaroe. No cash contributions are assumed.

Asset Class	Weight
US All Cap Equity	27%
International Equity	17%
Long Government Fixed Income	10%
Long Credit Fixed Income	25%
Intermediate Government Fixed Income	5%
Intermediate Credit Fixed Income	10%
US REITS	2%
Private Equity	4%

Table 2: 2022 Average Plan Asset Allocation

Average Plan Funded Status Attribution

Attribution of the month over month funded status movement is calculated for the Average Plan. The monthly funded status change is broken out according to the following sources: Treasury rates, credit spreads, growth asset returns, and cash in- and out-flows.

End Stage Plan

The End Stage Plan is intended to represent a mature US corporate defined benefit plan in a hibernation or self-sufficient state. It is closed to new entrants and benefits are frozen. The funded ratio at inception of December 31, 2019 was assumed to be 100% or fully funded.

End Stage Plan Liability

Sample projected benefit obligation (PBO) liability cash flows were developed to target the desired duration of 8 to 10 years. The PBO cash flows are discounted using the FTSE Pension Liability Index.

End Stage Plan Assets

The strategic asset allocation is comprised of 10% growth assets and 90% fixed income, as detailed below. The fixed income allocation reflects that an end stage plan is likely utilizing Liability Driven Investing (LDI) and has a similar duration to the liability duration. The asset allocation is rebalanced to strategic weights at each month-end. Monthly index returns are sourced from Moody's Pfaroe. No cash contributions are assumed.

Asset Class	Weight
US All Cap Equity	8%
International Equity	2%
Long Government Fixed Income	5%
Long Credit Fixed Income	30%
Intermediate Government Fixed Income	5%
Intermediate Credit Fixed Income	50%

Table 3: 2022 End Stage Plan Asset Allocation

Young Plan

The Young Plan is intended to represent an open US corporate defined benefit plan. It remains open to new entrants and active participants are still accruing a service cost. The funded ratio at inception of December 31, 2019 was assumed to be 80%.

Young Plan Liability

Sample projected benefit obligation (PBO) liability cash flows were developed to target the desired duration of 15 to 17 years. The service cost is assumed to be approximately 4.5% of the PBO. The PBO cash flows are discounted using the FTSE Pension Liability Index.

Young Plan Assets

The strategic asset allocation is comprised of 70% growth assets and 30% fixed income, as detailed below. The asset allocation is rebalanced to strategic weights at each month-end. Monthly index returns are sourced from Moody's Pfaroe. No cash contributions are assumed.

<i>Asset Class</i>	<i>Weight</i>
<i>US All Cap Equity</i>	38%
<i>International Equity</i>	22%
<i>Long Government Fixed Income</i>	10%
<i>Long Credit Fixed Income</i>	10%
<i>Intermediate Government Fixed Income</i>	5%
<i>Intermediate Credit Fixed Income</i>	5%
<i>US REITS</i>	5%
<i>Private Equity</i>	5%

Table 4: 2022 Young Plan Asset Allocation

The views contained in this report are those of IR+M and are based on information obtained by IR+M from sources that are believed to be reliable but IR+M makes no guarantee as to the accuracy or completeness of the underlying third-party data used to form IR+M's views and opinions. This report is for informational purposes only and is not intended to provide specific advice, recommendations, or projected returns for any particular IR+M product. No part of this material may be reproduced in any form, or referred to in any other publication, without express written permission from Income Research + Management. Moody's Analytics PFaroe® product used by IR+M includes market data and other information sourced from third parties under license. Certain licensors require Moody's Analytics to make disclosures to, or to obtain acknowledgements or agreements from, IR+M and parties receiving the information from IR+M, which is effected by the disclosures and disclaimers available at <https://static.pfaroe.com/DisclosuresAndDisclaimers/index.html>.