

# An End-to-End Solution to Successfully Terminate a Defined Benefit Pension Plan – A Case Study

1

As a defined benefit (DB) plan sponsor it is imperative that you work with advisors who are aligned with your objectives and understand your goals and time horizon. This case study is based on the experience of a client that selected BCG Pension Risk Consultants | BCG Penbridge (BCG) and Allianz Global Investors (AllianzGI) to provide an end-to-end solution for their DB plan. The value proposition for using this type of collaborative advisor offering was the ability to manage the critical steps in the DB plan termination process in a seamless cost-efficient package. This case study summarizes a recent real-world client situation that achieved the intended plan outcome and the process that led its plan through a standard termination.

## Executive Summary

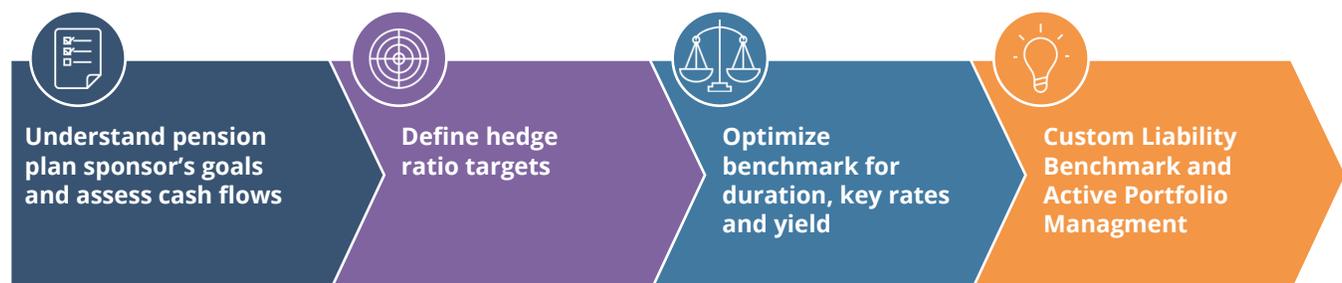
- The plan sponsor's objective was to terminate their DB plan in 12 months and they were faced with choosing between two different investment approaches
- AllianzGI's liability driven investment (LDI) proposal involved using a custom liability benchmark (CLB) to match the plan's cashflows
- AllianzGI's LDI approach preserved the plan's funding surplus, even as interest rates declined
- BCG's annuity placement process resulted in additional cost savings for the plan
- The alternative investment approach considered would have resulted in a materially underfunded plan, even after BCG's successful annuity bidding process

The DB plan was frozen in 2011 and was thought to be far from fully funded on a plan termination basis. In early fall of 2018, the plan sponsor engaged BCG to review their DB plan. In November 2018, BCG presented its study showing the plan was fully funded on an accounting basis, and that the cost to terminate was within striking distance. Given this information, it was crucial that the plan not lose ground with market volatility. After an introduction from BCG, AllianzGI was engaged to deliver an LDI solution that would preserve the plan's funded status through an expected 12+ month termination process.

Working within an LDI framework AllianzGI created a CLB based on plan liabilities. The three main components in constructing the CLB were:

- Duration risk,
- Yield curve risk, and
- Spread risk (i.e. matching the high quality pension discount rate)

Any approach that did not consider all three risks introduced volatility to the funded status. AllianzGI's approach is outlined below:



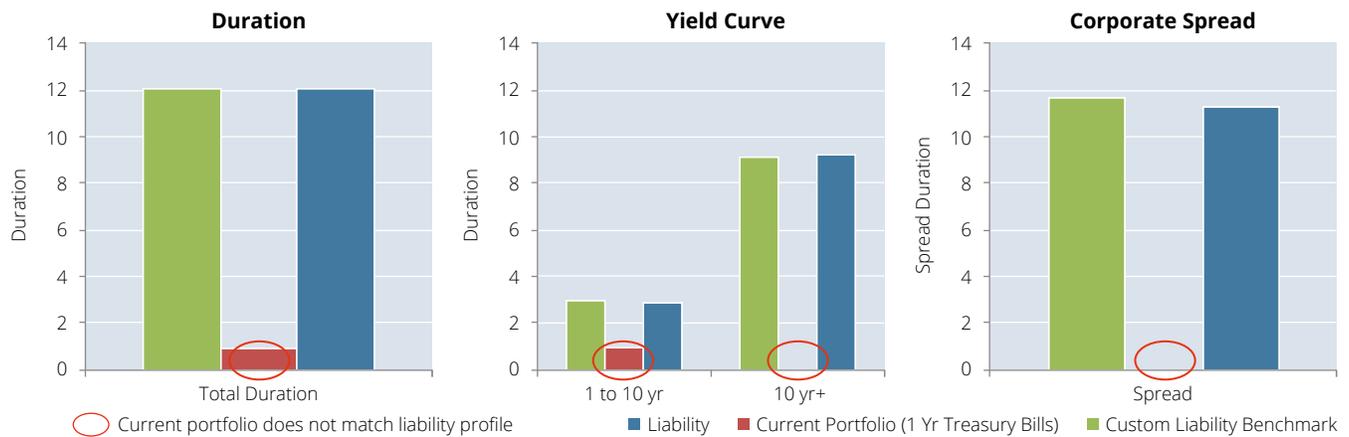
The goal of AllianzGI’s liability hedge was to protect plan funded status in a variety of market outcomes. The analysis below shows the fit of the two investment approaches:

- The CLB approach managed by AllianzGI; and
- 1 Yr Treasury bills

On each of the three components of risk, the CLB provided a superior hedge relative to Treasury bills.

### CLB Matches Liability Risk Metrics

Comparison of liability to current portfolio and Custom Liability Benchmark<sup>1</sup>



The graph below shows how AllianzGI’s CLB approach fared in relation to the plan’s accounting liability. It also shows how the 1 Yr Treasury Bills approach would not have preserved the plan’s surplus. The ultimate “Exit Liability Value” was below the plan’s accounting liability. The black diamond shows the plan’s Exit Liability, measured using the lowest provided annuity quote.

### Asset and Liability Comparison



As the chart shows, the assets in the CLB/LDI portfolio moved almost perfectly in tandem with the accounting liabilities. Meanwhile, a portfolio of treasuries would have held its value steady at a time when liabilities were rising. BCG’s active bidding process with multiple PRT insurers helped drive the final exit cost to a point well below the amount indicated based upon insurers’ indicative interest rates.

<sup>1</sup> Assumed fixed income assets are equal to the present value of liabilities.

The BCG-AllianzGI collaborative advisor offering brings a seamless, end-to-end solution to the small- to mid-size pension marketplace. Through a highly coordinated and unified set of services, we are able to deliver more efficient outcomes for our clients.

|  | Conventional Asset Manager | PRT Advisor | BCG-AllianzGI Collaborative Advisor Offering | An End-to-End Solution |
|--|----------------------------|-------------|--|------------------------|
| <b>Defined benefit plan cost analysis</b><br>Identifies and benchmarks defined benefit plan holding costs                            | X                          | ✓           | ✓  |                        |
| <b>Pension Risk Transfer (PRT) analysis</b><br>Evaluates PRT options, expected costs, expense savings, implementation considerations | X                          | ✓           | ✓  |                        |
| <b>Customized buyout price monitoring</b><br>Combines plan specific census data and longevity assumption with annuity pricing rates  | X                          | ✓           | ✓  |                        |
| <b>Asset Liability Modelling (ALM)</b><br>Quantify & understand sources of funded status volatility                                  | ✓                          | X           | ✓  |                        |
| <b>Custom Liability Benchmark (CLB)</b><br>Better match client's unique liability cash flows & mitigate funded status volatility     | ✓                          | X           | ✓  |                        |
| <b>Bottom-up fixed income portfolio management</b><br>Delivers low tracking error and positive alpha                                 | ✓                          | X           | ✓  |                        |
| <b>Funded status tracking</b><br>Daily tracking with quarterly funded status attribution reporting                                   | ✓                          | X           | ✓  |                        |
| <b>Comprehensive implementation support</b><br>Lump sum programs, annuity placements, plan terminations, incl. DOL IB 95-1 analysis  | X                          | ✓           | ✓  |                        |

The above represents BCG and AllianzGI's overall capabilities, not necessarily the services each firm would perform in any particular client engagement.

## Contact Us

**Mike Devlin**, Principal  
BCG Pension Risk Consultants | BCG Penbridge  
T: 781-356-2299  
E: [mdevlin@bcgpension.com](mailto:mdevlin@bcgpension.com)

**Steve Keating**, Managing Director  
BCG Pension Risk Consultants | BCG Penbridge  
T: 203-955-1566  
E: [skeating@bcgpension.com](mailto:skeating@bcgpension.com)

**Lee Tenney**, Director  
Allianz Global Investors  
T: 646-901-2597  
E: [lee.tenney@allianzgi.com](mailto:lee.tenney@allianzgi.com)

**William Bohensky**, Vice President  
Allianz Global Investors  
T: 714-319-4844  
E: [william.bohensky@allianzgi.com](mailto:william.bohensky@allianzgi.com)

This document has been prepared by BCG and AllianzGI. No part of this material may be reproduced in any form, or referred to in any other publication, without express written permission.

Investing involves risk. The value of an investment and the income from it may fall as well as rise, and investors may not get back the full amount invested. Past performance is not indicative of future results. This document is being provided for informational purposes only and should not be considered investment advice or recommendations of any particular security, strategy or investment product. Statements concerning financial market trends are based on current market conditions, which will fluctuate. Forecasts and estimates have certain inherent limitations, and are not intended to be relied upon as advice or interpreted as a recommendation.

The opinions expressed herein represent the current, good faith views of the author(s) at the time of publication and are provided for limited purposes, are not definitive investment advice, and should not be relied on as such. The information presented in this article has been developed internally and/or obtained from sources believed to be reliable; however, BCG and AllianzGI do not guarantee the accuracy, adequacy or completeness of such information. Predictions, opinions, and other information contained in this article are subject to change continually and without notice of any kind and may no longer be true after the date indicated. If presented, any forward-looking statements speak only as of the date they are made, and BCG and AllianzGI assume no duty to and does not undertake to update forward-looking statements. Forward-looking statements are subject to numerous assumptions, risks and uncertainties, which change over time.

#### **About BCG**

BCG specializes in assisting defined benefit plan sponsors with managing the costs and risks associated with their pension plans. Since 1983, BCG has successfully helped over 2,000 organizations achieve their pension de-risking goals. Our clients range from publicly-traded companies, to privately held firms, and include healthcare, banks and not-for-profit organizations. BCG helps clients with the full range of pension de-risking strategies from liability driven investing approaches to partial or full pension risk transfer, including navigating the complex and lengthy process of plan termination. BCG frequently works in collaboration with law firms, consulting actuaries, investment consultants, asset managers and financial advisors. BCG is headquartered in Braintree, MA with satellite offices across the US. Please visit our website at: [www.bcgpension.com](http://www.bcgpension.com).

#### **About AllianzGI**

AllianzGI is a top five global asset manager that manages \$185 billion in liability centric portfolios as of December 31, 2019. The US Fixed Income LDI team has more than two decades of experience designing liability hedges and actively managing portfolios to custom benchmarks. The LDI team is part of a top performing fixed income group using a bottom-up investment process designed with low tracking error that is well suited to a precise liability hedge. Allianz Global Investors is a global asset management business that operates under the marketing name Allianz Global Investors through affiliated entities worldwide, including Allianz Global Investors U.S. LLC an SEC registered investment adviser.