Manulife Investment Management

Liability-driven investing: helping pension plans weather the storm

2020 has been a difficult year for investors, and pension plan sponsors have not escaped the global Covid-19 pandemic unscathed. Despite the dramatic market recovery witnessed since late March, market values remain down from their previous highs in many asset classes. The unprecedented environment institutional investors find themselves in has been exacerbated by stubbornly low or negative sovereign bond yields, encouraging many plan sponsors to consider more imaginative methods of sourcing income and maintaining sufficiently high rates of return, without materially increasing the risk of a loss of capital. More than ever, investors need new ways of thinking to build more resilient portfolios.

These challenges perhaps explain why pension plan sponsors are increasingly paying attention to liability-driven investing (LDI)—an investment framework that uses a pension plan's liabilities, in place of public market indexes, as the benchmark against which it measures investment performance. LDI solutions allow for a tailor-made approach in managing fixed-income assets against pension liabilities while also taking advantage of dynamic glide path strategies to help better frame asset allocation decisions. We believe implementing an LDI framework can help plan sponsors of all sizes better manage funded status volatility. We also firmly believe inaction could be costly.

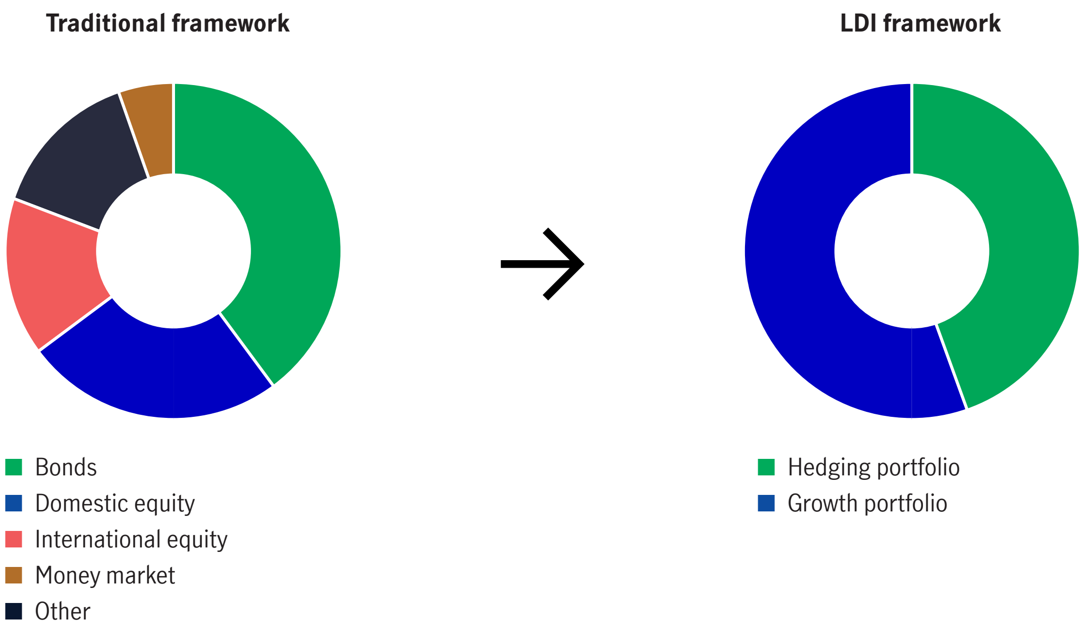
Rethinking the benchmark

The underlying rationale for LDI is relatively straightforward: most risk-based financial markets move to their own rhythm, basically independent of a plan's obligations. It's therefore difficult for a plan that benchmarks its portfolio against a public market index to expect to match its specific liabilities in a consistent and reliable manner. Selecting an appropriate benchmark is critical for plan sponsors because the economic risk profile of a market index can be quite different from a pension plan's liability risk profile. With this in mind, an LDI framework is built around the concept of 'liability matching'.

When implementing LDI, a plan would typically split its portfolio into two parts:

- Hedging portfolio — a hedging portion that closely matches a plan's liabilities, typically comprising fixed income instruments as well as other income-generating assets
- Growth portfolio — a return-seeking or growth portion that is typically not very correlated to the plan's liabilities but could help to narrow any gap in a plan's funded status

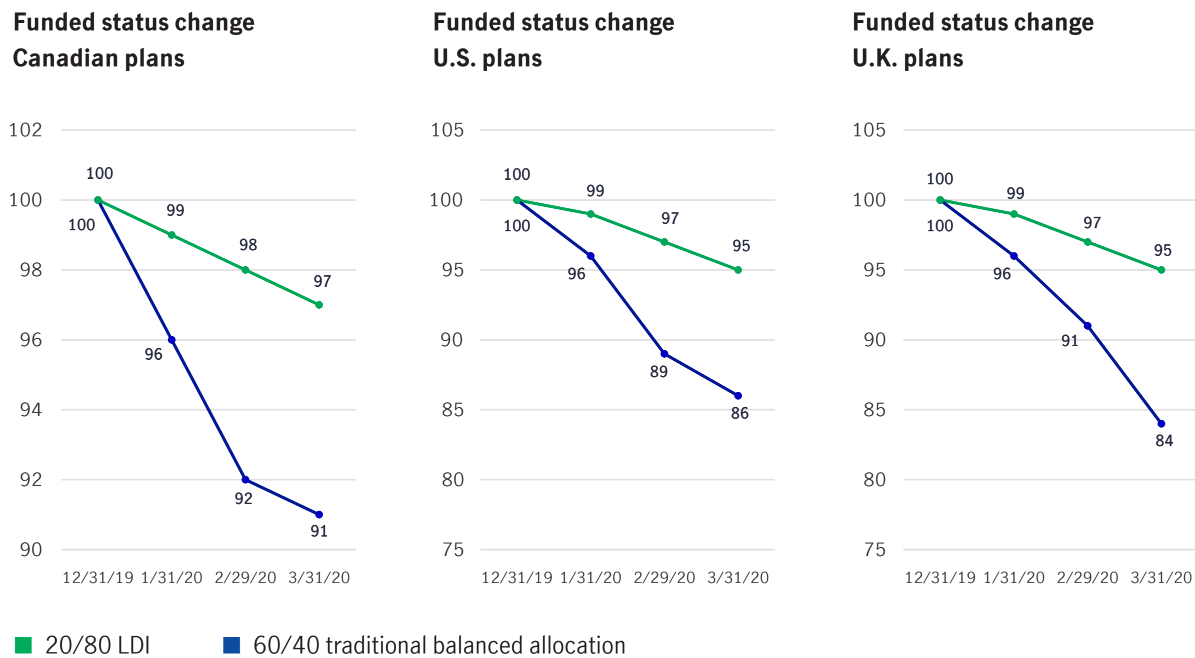
The LDI framework: a change in perspective



Source: Manulife Investment Management, October 2020. For illustrative purposes only.

This year's market drawdown provided a prime example of how LDI strategies can build resilience into portfolios. We compared the performance of varying asset mixes from a traditional balanced 60% equity/40% fixed income mix to a 20% equity/80% LDI portfolio across several markets. Plans using an LDI approach, and that began the year fully funded, saw their funded level fall between just 3-5 percentage points to the end of March, while those using a traditional balanced allocation suffered potential declines of up to 16 percentage points.[1] Such a dramatic fall could have had a significant impact on a plan sponsor's need to make necessary contributions and perhaps even threaten the financial viability of a plan sponsor also adversely effected by the COVID-19 crisis.

Changes of funded status globally, December 2019–March 2020[2] (%)



Source: Manulife Investment Management, as of March 31, 2020. For illustrative purposes only. Additional information is detailed in the footnote.

A dynamic approach to de-risking

Typically, a plan begins the de-risking process by determining the proportion of liabilities that needs to be hedged, thereby establishing the hedge ratio, with the remaining assets invested in a diversified portfolio of return-generating growth assets. A dynamic asset allocation framework gives sponsors the flexibility to adjust their allocation between the hedging portfolio and the growth portfolio over time.

To help them decide precisely when they should adjust their allocation between the two portfolios, many plans have chosen to adopt a de-risking glide path. In its simplest form, the de-risking glide path maps out when a plan should increase allocation to its hedging portfolio as different conditions are met on its path toward fully-funded status.

A key advantage of a dynamic asset allocation framework is that it allows plans to lock in the gains extracted from the growth portfolio by transferring them to the hedging portfolio as they're realized. An additional potential benefit is that as sponsors make additional contributions to the plan, its funded ratio improves. This means any additional contributions will generally be invested less aggressively than they might be without a glide path in place.

Depending on the parameters agreed upon when implementing the glide path, pension plans can also control the speed of de-risking and the sources of risk they are willing to accept within their return-seeking growth portfolio.

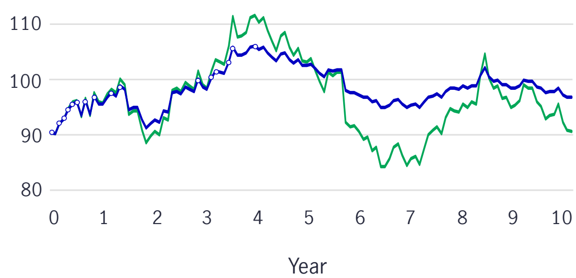
Traditional asset allocation versus dynamic asset allocation[3]

By way of example, let's take a pension plan with an initial funded ratio of 90% that has allocated 40% of its assets to its hedging portfolio and allocated the rest into growth asset classes. Let's also assume that the plan's sponsor has adopted the dynamic asset allocation strategy and decided to increase its liability hedge ratio by 2% for every 1% increase in its funded ratio.

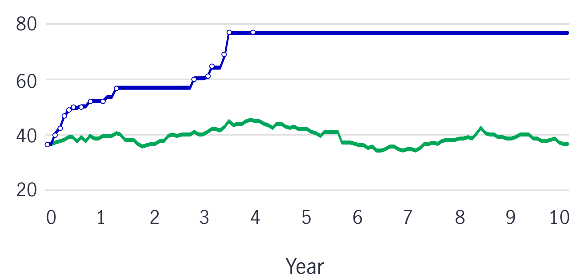
According to our calculation, the plan would have experienced much lower funding ratio volatility if it had adopted the dynamic asset allocation framework. Over the course of the last 10 years, the difference between the highest and lowest points of the plan's funding ratio would be around 15%, as opposed to more than 25% if it had gone with the traditional allocation strategy. This is because the dynamic asset allocation approach allows the plan to lower its exposure to risk as gains are made in the growth portion of the fund.

A dynamic approach (%)

Funding ratio



Hedge ratio



■ Traditional allocation strategy ■ Dynamic allocation strategy

Source: Manulife Investment Management, October 2020. For illustrative purposes only.

Our study shows that, over time, the plan's hedge ratio should progress in a relatively smooth manner toward its targeted funding level under the dynamic asset allocation framework. By contrast, the plan's hedge ratio would have simply moved in line with the market if it had adopted the traditional approach. The impact of this additional funded status volatility is increased volatility of contributions.

Enhancing returns and managing risk with real assets

With expected returns across global bond markets so low, relying solely on bonds for hedging has become extremely challenging. The 10-year U.S. Treasury note currently yields a nominal 0.5%, with other high-quality government bonds offering even less: Comparable issues from Canada, yielding 0.4%, Japan, yielding 0.0%, and Germany, yielding negative 0.5%, appear unlikely to live up to their historical levels of income generation. In fact, our global chief economist expects major central banks to keep policy rates at or below zero until at least 2025, "a development that could push investors further out on the risk spectrum, swapping traditional government bonds for higher-yielding alternative assets".[4]

It's perhaps natural that plan sponsors may cite low interest rates as a reason to delay implementing de-risking strategies. However, by choosing to wait for interest rates to rise, sponsors would have—by default—chosen to embrace equity risk as well as interest-rate risk.

One way of mitigating this risk is for sponsors to consider allocating a portion of their hedging portfolio to a diversified set of asset classes that are complementary in nature to their fixed-income portfolio. Assets that we believe could fit the bill include real estate, infrastructure, timber, agriculture, mortgages and alternative assets. Ideally, these assets should have a low correlation to those held in the growth portfolio. The goal is to create a diversified hedging portfolio that's aligned with a plan's obligations.

LDI: an evolving framework

Plan sponsors of all sizes can now choose from a range of de-risking solutions based on their individual needs. What's perhaps most important for sponsors is deciding to take that first step.

The risk of waiting for the 'right time' is that a plan's funded status could deteriorate further if turbulence continues. In our view, while we may be hard pressed to define what could be considered the perfect moment to implement LDI or de-risking strategies, there is no wrong time to draw up a plan for the future.

[1] Wall Street Journal, YCharts, Manulife Investment Management, April 20, 2020.
[2] Canadian Pension 60/40 is represented by 30% S&P/TSX Composite TR; 15% S&P 500 TR CAD; 15% MSCI EAFE GR CAD; and 40% FTSE TMX Canada Universe TR. Canadian Pension 20/80 LDI is represented by 10% S&P/TSX Composite; 5% S&P 500 TR CAD; 5% MSCI EAFE GR CAD; and 80% MIM LT Liability Gov PF Bench. Liability is represented by100% MIM LT Liability Gov PF Bench. US Pension 60/40 is represented by 30% S&P 500 TR; 30% MSCI EAFE GR USD; and 40% BbgBarc US Ag Bond TR. US Pension 20/80 LDI is represented by 10% S&P 500 TR; 10% MSCI EAFE GR USD; and 80% BbgBarc US Corp Aa Long TR. Liability is represented by100% BbgBarc US Corp Aa Long TR. UK Pension 60/40 is represented by 60% MSCI ACWI GR GBP; and 40% BbgBarc Global UK TR. UK Pension 20/80 LDI is represented by 20% MSCI ACWI GR GBP; and BbgBarc Long Term UK TR. Liability is represented by 100% BbgBarc Long Term UK TR. "The three stages of the global economic recovery," Manulife Investment Management, July 24, 2020.
[3] Traditional strategy is rebalanced monthly to target allocation. Dynamic allocation strategy is rebalanced monthly to achieve a dynamic target hedge ratio.
[4] "The three stages of the global economic recovery," Manulife Investment Management, July 24, 2020.

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