

DB Solutions

InSights



Welcome to the first edition of DB Solutions InSights from Sun Life Financial. This first thought piece reviews the risks faced by defined benefit pension plans and suggests a new investment approach to help manage these risks.

Pensurance™ – the new investment for defined benefit plans

Most defined benefit (DB) pension plan sponsors have adopted a very similar asset mix despite differences in plan characteristics such as funding levels, funding flexibility, demographics and risk aversion. A typical long-term asset mix is 60% in equities with the balance in bonds.

The market declines of 2008 have brought into focus the mismatch risks associated with this long-term asset mix strategy. Most DB plans have experienced significant decreases in solvency, leading to a requirement for increased funding, which will divert cash from day-to-day business operations, debt repayments, dividend payments, and other essential uses.

Add to these woes new accounting rules that will more rigorously factor market volatility into pension accounting figures and it's clear that many plan sponsors need to revisit their approach to the DB plan asset mix.

There is no magic investment to put things right. What is needed is a mindset shift and recognition that size does matter. While a larger fund can benefit from better diversification opportunities, the risk being taken in dollar terms needs to be balanced with the impact the DB plan can have on the sponsoring company's balance sheet.

While liability driven investing (LDI) has been hailed as a possible savior for DB plans, under the current market environment, some strategies are not appropriate to implement today, but will be one of a number of risk management tools to draw on in the future.

The real savior may be a new twist on an investment approach that has been around for decades, a traditional annuity purchase. The new investment option – “pensurance™⁽¹⁾” – remains part of the fund's assets, and provides some unique characteristics including insurance for DB plans against some of the risks not available from other investment options. The pensurance™ could play a particularly beneficial role in helping to alleviate the cost and administration for closed or frozen DB plans and provide a means to a genuine end.

Managing the risks

When it comes to managing risks, sponsoring a DB plan is like running an insurance company. But in the pension industry there is little praise to recognize the efforts of plan sponsors operating on a much smaller budget than the insurance companies in managing risks. The key risks include:

- **Interest rate risk:** *the purpose of a pension plan is to pay retirement income to members. The sponsoring employer is responsible for ensuring sufficient assets are set aside to meet the accumulated pension liabilities. As real and nominal interest rates change, the market value of pension liabilities also experiences change.*
- **Equity risk:** *most pension plans invest in an equity-biased portfolio that mismatches the liabilities in pursuit of the reward of higher long-term returns to lower financing costs. The level of equity risk generally fuels the volatility in the ratio of asset to liabilities over time.*
- **Credit risk:** *the credit crisis of 2008 has been a key catalyst for equity market declines and has no doubt led to a different viewpoint of how credit impacts the value of pensions. However, credit risk typically has two impacts – it impacts the value of assets held in corporate bonds, and it also influences the value attributed to pension accounting liabilities.*
- **Longevity risk:** *it's official – people are living longer. But how much of this improved mortality has been captured in the assumptions to value pension liabilities? Could this be the next cost surprise to rattle Canadian DB plan sponsors?*
- **Operational risk:** *much of the day-to-day operational elements of a DB plan are undertaken by a custodian. But what about the operational procedures for making timely decisions? Does the DB plan receive the same attention as a company's line of business of similar value, or one that has a similar impact to the company's balance sheet?*

The way forward

Setting the asset mix is still about balancing risk and reward, but going forward it will be with a greater appreciation of the associated balance sheet risk relative to the sponsoring company. In the 1980s, when DB plan assets and liabilities were relatively small in comparison to the value of the sponsoring company, an equity-bias focus was appropriate and well rewarded. As pension assets and liabilities grew, too much emphasis remained on managing the fund assets and too little on the interaction of the assets, liabilities and the growth in value of pension promises in relation to the sponsoring company's balance sheet. This emphasis was called into question following the 'perfect storm' that hit DB plans in the early years of this decade, an awareness that can only be heightened by the negative DB plan rates of return in 2008.

Liability driven investing (LDI) has been billed as the primary means to assist DB plan sponsors. Under the LDI process, the asset mix is set with explicit reference to the plan's liabilities. This is not new – investment consultants have been assisting Canadian DB plan

sponsors in framing asset allocation decisions with reference to liabilities for many years. The saving attributes of LDI come from new derivative products and strategies that are being developed to allow consultants and plan sponsors more flexibility to better manage risk. For example, in the past, a DB plan with an asset mix of 60% equities and 40% bonds looking to reduce its interest rate risk would have had to reduce its equity exposure to increase the bond assets. Today, LDI products can allow plan sponsors to maintain the 60% equities and 40% bonds asset mix, at the same time as increasing the bond exposure through swap or futures contracts.

The recent "bad press" surrounding some other derivative products has likely soured the immediate appetite of plan sponsors for derivative solutions, despite the risk management benefits these can provide. In addition, 2008 highlighted the need to monitor the derivative program and to have a process in place to temporarily halt their use in the event that they outperform expectations (as in 2008). As a result, while such derivative programs may provide at least part of the solution for certain plans, now may not be an ideal time for implementation due to the risk that last year's out-performance is reversed.

Last year also highlighted a second key issue facing plan sponsors. For a DB plan, the management of both solvency (cash) and accounting (expense) volatility is important, but it's difficult for a plan sponsor to address both liability measures. In 2008, there was a large disparity between the value of solvency and accounting liabilities due to the different yields applied to the two liability valuations. Government bond yields declined, which resulted in the value of the solvency liabilities increasing. Corporate yields on the other hand, increased, which led to a decline in accounting liabilities, and in many cases, offset much of the declines from DB plan assets.



A new idea may be the one that can address many of the risks faced by DB plan sponsors. It's a form of pension insurance, or "pensurance™", where DB plan sponsors benefit from the resources and expertise of insurance companies and can discharge the pension obligations associated with the investment. This approach not only guarantees interest rate and longevity risk management, but also reduces the DB plan's overall dollar risk as a result of transferring the liabilities (and associated assets) to the insurance company. Sound familiar? These are the characteristics of a traditional group annuity purchase. Another characteristic of an annuity is it enables a sponsoring company to hedge against both liability measures – solvency and accounting.

Annuity refresher

The insurance industry has been operating the annuity purchase market for many decades. An annuity provides an individual with a guaranteed source of retirement income for the rest of their life (or a defined period). Under a group annuity purchase, plan sponsors typically purchase the guarantee for designated plan members – often some or all of the retirees, who are already drawing a retirement income from the DB plan assets. The insurance company provides a dollar quote for taking over the liabilities associated with a particular group of members and discharges the plan sponsor of any future obligations⁽²⁾.

As highlighted earlier, accounting liabilities are valued with reference to long corporate yields. In the event that yields decline, the liabilities will increase and for most DB plans, there will be little offsetting increase in the plan assets, since most plans have little exposure to corporate bonds. An annuity purchase is one method to get access to higher yields and to provide some offset to an increase in accounting liabilities when corporate yields decline. Annuity rates are higher now than in the last five years, resulting in great value for DB plan sponsors.

Under the current environment, however, the traditional annuity purchase also has some challenges:

- **Need for a top up contribution⁽³⁾:** many DB plans have a deficit of assets when compared to the liabilities. The sponsoring company is then faced with having to make a special top up contribution to reflect the "share" of the deficit associated with liabilities being discharged to the insurance company.

- **Trigger an accounting settlement:** even if the annuity purchase costs no more than the value of the accounting liability, if there are unrecognized losses in the plan, the settlement impact can be material. The impact on the balance sheet will vary depending on the accounting standard being followed and the particular circumstances of the DB plan.

For some sponsoring companies, these two challenges may be sufficient to discourage this type of approach to managing risk in the current environment.

A new annuity guarantee

Recognizing the potential draw backs of the traditional annuity purchase, Sun Life Financial is developing an alternative annuity investment option for the Canadian market – pensurance™. Under this option, the same liabilities associated with the designated plan members identified for the traditional annuity purchase can be guaranteed against both interest rate and longevity risk, but with the following features:

- **Remains part of the fund:** the cash flows that would ordinarily be paid to individual members under the traditional annuity purchase are received by the DB pension fund and the income payments to the members are made from the fund.
- **No top up contribution or accounting settlement:** since liabilities are not being discharged, there is no requirement for any top up or settlement payment.
- **Access to higher yields:** the underlying investments at Sun Life Financial are similar to those used for the traditional annuity purchase, which provides some offsetting protection against declining corporate bond yields and an implied increase in accounting liabilities.

Under pensurance™, the plan sponsor is able to reduce today the dollar risk associated with the DB plan in a cost-effective manner. For example, a plan sponsor with a deficit in their DB plan could invest in the pensurance™ annuity until such a time that there is no longer a shortfall or adverse accounting settlement, at which point, a switch to the traditional annuity purchase could be made. By doing so, there will be no requirement for a top up contribution and any accounting settlement can be planned well in advance.



Empowered to act

Sun Life Financial believes pensurance™ provides a new risk management investment to empower DB plan sponsors navigate through these difficult times. Plan sponsors should review where they want to be in five years with respect to the dollar risk associated with the DB plan and its impact on the balance sheet and start planning the journey now to better risk management for the future.

Watch out for the next DB Solutions InSight issue – we'll review the annuity purchase market, and provide background as to why today's annuity rates provide the best value in more than five years.

About our author

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Peter leads the DB Solutions team, providing a wide array of de-risking solutions for plan sponsors throughout North America. With more than 20 years experience in the pension and investment consulting industry as a consultant, marketer and strategist, Peter has held senior roles in leading Canadian and UK consulting firms.



About Sun Life Financial

Sun Life Financial is a leading international financial services organization providing a diverse range of protection and wealth accumulation products and services to individuals and corporate customers. Chartered in 1865, Sun Life Financial and its partners today have operations in key markets worldwide, including Canada, the United States, the United Kingdom, Ireland, Hong Kong, the Philippines, Japan, Indonesia, India, China and Bermuda. As of December 31, 2008, the Sun Life Financial group of companies had total assets under management of \$381 billion.

Sun Life Financial Inc. trades on the Toronto (TSX), New York (NYSE) and Philippine (PSE) stock exchanges under ticker symbol SLF.

⁽¹⁾ "Pensurance™" is a new concept that is still undergoing legal and accounting review

⁽²⁾ For Quebec registered plans, the purchased annuities can be reduced in the event that the plan later winds up in a deficit position

⁽³⁾ No top up may be required for Quebec registered plans.