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Setting the Stage for Pension Risk Management in 2010 and Beyond – The Case for a Better Balancing of Needs and Risks

by André Choquet, Senior Consultant and Barry Gros, Vice President

First in a two-part series on pension risk management. Our July 2010 *Ready* will present Aon's solution to implementing and monitoring liability-driven investment (LDI) strategies.

With 2009 having given pension plan sponsors some breathing room after the disastrous investment performances of 2008, the pension risk management model is under full review. General wisdom dictates that pension risk management must go well beyond just managing the fund.

> *"A typical application of [modern] portfolio theory chooses a portfolio similar to a 60-40 or 70-30 or even 80-20 mixture of stocks and bonds, but more sophisticated, combining more asset classes in a way that minimizes risk for a given level of return on the average."*[(1)]

Would Markowitz have guessed 50 years ago that his groundbreaking Modern Portfolio Theory would still form the basis for the 60/40 equity/bond asset mix that we typically see in most pension plans in Canada?

What we saw in 2008 was the danger inherent in applying the broad-based conclusions of a great study narrowly to a specific situation, that being defined benefit (DB) pension plans, and not revisiting the soundness of this application for decades.

There are a number of factors that have developed in the last 50 years that should have caused fundamental shifts in how pension plan risk is managed:

> **Maturity of plans –** As the baby boomer workforce has aged, the majority of the liabilities of many DB plans today rests with its retired members. In some cases, the sizes of these mature plans have reached such proportions that they can affect the long-term viability of the sponsoring entity.

> **Regulatory environment –** Solvency funding rules have imposed cash strains on plan sponsors, while asymmetric surplus rules result in sponsors reluctant to fund more than the bare minimum for their pension plans because they are afraid of trapping capital in the plans.

> **Accounting standards –** Integrating the pension plan financials into a plan sponsor's financial statements has increased the volatility of companies' financial results, causing many companies to abandon DB plans in favour of defined contribution (DC) programs.

> **Proliferation of liability measures –** With the expansion of pension and accounting standards, there are more liability definitions to contend with in setting appropriate funding targets (e.g., solvency, wind-up, going-concern, accounting and economic).

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(1) Harry M. Markowitz discussing the application of his 1959 book Portfolio Selection – Efficient Diversification of Investments http://www.ifa.com/Financial_Crisis_Solution_Markowitz_Harry.aspx?src=Whats_New

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The Fallout from 2008

The significant economic downturn and the resulting meltdown of most pension plans led many plan sponsors to react quickly in two broad ways to mitigate the volatility of costs inherent in their DB plans:

> **Where plan sponsors retained the DB design, there has been a significant increase in interest in LDI strategies,** as evidenced by the following:

- SEI's 3rd Annual Global Quick Poll on LDI – More than half of the 150 respondents from North America and Europe indicated that they utilized LDI strategies in 2009. This compares to 37% in 2008 and 20% in 2007. Seventy percent of respondents agreed that the market volatility of 2008 has increased the benefits of an LDI approach when it comes to pension risk management. The Netherlands leads the way with 94% of Dutch respondents currently employing an LDI approach.(2)
- Aon's 1st Global Survey of Providers of Pension Risk Solutions – Seventy-one percent of the 41 respondents offered solutions in the previous year targeting at least one of the following risks which, in order of popularity, are: interest rates, equity market, credit, inflation, currency, liquidity, and longevity.(3)
- Requests For Proposals in the Canadian market – There has been a noticeable increase in the number of organizations looking specifically for pension risk management solutions, primarily with the goal of "sunsetting" DB liabilities at the ideal time.

While an LDI approach can be effective in dealing with interest rate risk, it's often only the first step in dealing with pension plan risks. LDI doesn't mitigate all other investment-related risks nor does it deal with non-investment risks such as longevity.

> **There has been a significant increase in eliminating the DB "problem" altogether,** through either:

- closing the DB plan to new entrants, freezing the DB accruals of current members, and forcing current members into a DC arrangement for future service; or
- winding up the plan.

The direction of these changes could be considered extreme compared to the types of plan changes that were made in the early 1990's, when the focus was providing employees with greater flexibility rather than cost reduction. However, while the shift in plan design from DB to DC is expected to bring short-term financial benefits to plan sponsors, it's not clear whether other operational risks are fully evaluated before the decision to change plan design is made. Extreme plan design changes can have longer-term risks that cannot easily be quantified at the time of the change, including the risks of:

- negatively impacting reputation and productivity as a result of having disgruntled employees who believe their employment deal was adversely altered; and
- class action lawsuits being launched by employees who believe their retirement security has been jeopardized by the plan changes.

Looking Forward

There are many factors at play in understanding how pension risk management will operate in the future. The reality for many North American plan sponsors is that they operate more and more in a global economy where costs must be contained to compete effectively and survive. The nature of work and employment has changed, with individuals having several employers and even several careers over their working lifetime. This has clearly affected how employers are seeing their retirement obligation. Furthermore, as the baby boomers move through their retirement years, they will redefine what retirement is, moving it away from a single point-in-time event.

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(2) http://www.seic.com/docs/Institutions/SEI-UK-Global-Quick-Poll-LDI-Globally-LDI-Entered-Mainstream-Nov-17-2009.pdf

(3) Preliminary results of Aon's Global Survey of Providers of Pension Risk Solutions.

To the extent that an organization considers a retirement plan to be an integral part of its rewards offering, the plan must fulfill clear human resources needs. For example, will the new program have the same retention ability as the old program? In an era of talent shortage, this can be an important consideration if 30% or more of an employer's workforce is eligible for retirement. Conversely, will the new program be an impediment to workforce management? A poorly designed and/or managed DC plan could delay retirement of many employees even though the corporate goals envisaged early retirement for them.

While employers are looking to reduce cost volatility presented by DB plans, employees aren't necessarily comfortable with the benefit uncertainty presented by DC plans. Furthermore, with only 21% of private sector workers covered by DB plans (down from 29% in 1992)[(4)], and only one in three of the Canadian households that are planning to retire in 2030 saving enough to retire with adequate income[(5)], it's no wonder that Canadian employees are concerned about their financial future.

Better solutions exist, ones that better balance employer and employee needs, and are based on a sharing of risks between these parties. These solutions require a more flexible plan design than current pension standards contemplate, combined with investment strategies that are better aligned with the nature of the liability risk. Such solutions have a decent chance of success but will require a few things to happen, specifically:

- Modernization of pension standards legislation to allow more flexible pension plan design and portfolio structure. An example is Aon's Affordable DB Plan highlighted in the July 2008 edition of *Forum Special Edition [+]*
- Modification of actuarial standards to include valuation methodologies more in tune with the structural changes in portfolio construction that we're starting to see (the use of leverage to name just one) and where funding policy drives the funding method and not vice versa.
- Further adoption of an integrated view of pension risks, which incorporate funding targets, investment policy, plan design and governance.
- Linking of pension risks to a corporation's Enterprise Risk Management framework, which involves identifying key corporate risk metrics and evaluating pension risk in a consistent fashion.
- Greater acceptance of the use of derivatives and leverage in pension risk management to hedge against the downside of extremely volatile markets or swings in interest rates.
- For smaller employers or larger employers in the same industry, the corporate will and the ability to band together via broader-based multi-employer plans with a shared risk focus and independent third party management.

Conclusion

The experiences of 2008 have forced pension plan sponsors into a "new normal", whether they like it or not. The success of Canada's retirement system will depend on the evolution of plan designs and investment strategies within a comprehensive pension risk management framework that provides a better balancing of needs and risks among all stakeholders. Because of the many components at play (i.e., investment, funding, design, governance) more frequent monitoring will be needed than that provided by the typical triennial actuarial review or the assumption of 4-year market cycles. This is not that different from the market's quarterly monitoring of earnings of publicly traded companies.

As the management of pension plan risk becomes more complex and requires more specialized skills and knowledge, employers will continue to re-evaluate their commitment to their employees' retirement and develop their own road map for evolving their retirement plans. For sponsors lacking sufficient in-house expertise, the solution may lie in greater outsourcing of either the plan management function or the plan itself.

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(4) http://www.actuaries.ca/members/publications/2007/207061e.pdf

(5) http://www.actuaires.ca/members/publications/2007/FINAL%20CIA_Retirement_E.pdf

Investment Consulting Insights

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Geographic Diversification Within Equities: Myth or Reality

by Bill Maclean, Senior Vice President

Industry surveys indicate that a typical Canadian pension plan has an exposure of between 25% and 30% to non-domestic equities. But, for an extended period of time, the presence of foreign equities in a Canadian pension plan has resulted in a significant drag on overall total fund returns.

Annualized Returns as at December 31, 2009			
Stock Market Index	**1 Year (%)**	**5 Year (%)**	**10 Year (%)**
Canadian Equities (S&P / TSX)			
Local Return	35.05	7.66	5.61
World Equities (MSCI World)			
Local Return	26.51	2.10	-0.79
C$ Return	11.07	-0.14	-2.98

Over the last 10 years, the **relative** returns from foreign equities with or without the impact of the appreciating dollar, have been negative.

During that same period, Canadian equity returns have been dominated by the materials and energy sectors, with returns of 11.97% and 17.6%, respectively. Compared to other world markets, Canada has a significant weighting in these sectors.

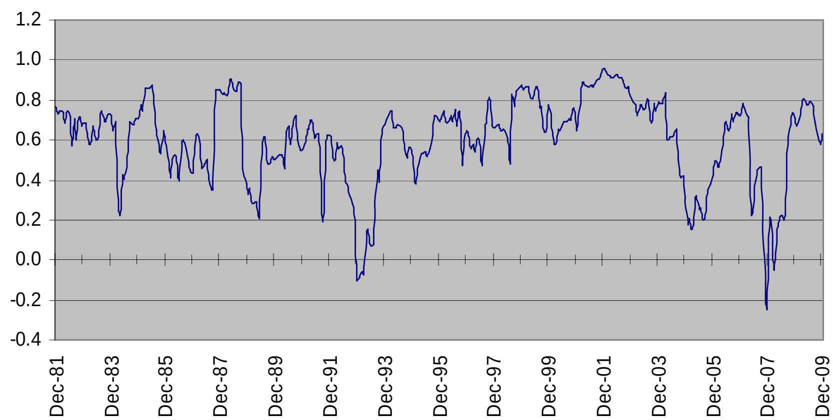
Ten years is a long time for pension plans that are required to have valuations performed at least every 3 years or, in the case of many plans registered in Quebec, every year. However, if the relative market returns over longer periods of time and in the 1980s and1990s are examined, the primacy of Canadian equities does not persist.

Annualized Returns as at December 31, 2009				
Stock Market Index	**20 Year (%)**	**30 Year (%)**	**1980s (%)**	**1990s (%)**
Canadian Equities (S&P / TSX)				
Local Return	8.05	9.43	12.23	10.55
World Equities (MSCI World)				
Local Return	5.20	9.65	19.13	11.54
C$ Return	5.41	9.99	19.77	14.52

Benefits of Geographic Diversification within an Equity Portfolio

1. A global equity mandate allows a portfolio manager to identify the best opportunities regardless of country. The Canadian market represents only 4.9% of the world equity market. If regional versus global mandates are compared over time, the evidence further suggests that the larger the opportunity set (global), the greater the potential for value to be added.
2. A global mandate can take advantage of valuation differences between countries, sectors and industries, again offering increased added value return potential. By global standards, Canada is fairly concentrated and illiquid. The Canadian market is heavy in energy and basic materials, creating an unpredictable/cyclical return pattern.
3. The correlation of return between global equities and Canadian equities is less than 1, even though correlations are higher during crisis, as shown in the following graph. Consequently, by holding both global equities and Canadian equities, a pension plan should be able to obtain greater diversification without sacrificing return.

12-month moving average correlations between Canadian equities and World equities



Source: Morningstar Direct

Perspective

The most important question that should be asked is "What about the next 10 years?" There is a valid argument for geographic diversification, with the basic tenets being:

> Canadian and foreign equity markets are not perfectly correlated.
> Foreign equity markets offer more choice on all levels.
> Long-term performance data supports diversification.
> The Canadian dollar's impact on total portfolio returns declines over time.

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Pension Fund Management

Aon Survey on the Performance of Institutional Pooled Funds

We are pleased to present the results of the Aon quarterly survey on the performance of institutional pooled funds. The survey covers more than 350 pooled funds which are actively managed by over 100 Canadian pension fund managers. The following table illustrates the performance of the funds by asset class for various periods ending December 31, 2009.

Average annual returns(1)(2)
for the periods ending December 31, 2009

	5 Yrs (%)	3 Yrs (%)	1 Yr (%)	3 months (%)
Balanced				
Q1	5.6	1.0	19.9	2.6
Median	4.9	0.3	16.7	2.2
Q3	4.4	-0.5	15.0	1.8
Fixed income securities				
Q1	5.6	5.7	9.6	0.4
Median	5.3	5.4	8.6	0.2
Q3	5.1	5.1	7.0	0.0
DEX - Universe	5.2	5.2	5.4	-0.2
Canadian Equity				
Q1	8.7	1.2	37.9	4.8
Median	7.6	0.0	33.8	3.9
Q3	6.8	-1.7	29.2	3.0
S&P/TSX Composite	7.7	-0.2	35.1	3.9
S&P/TSX Capped Composite	7.7	-0.2	35.1	3.9
US Equity				
Q1	-1.1	-6.6	12.4	4.7
Median	-1.8	-8.6	8.5	3.4
Q3	-2.6	-9.8	5.5	2.7
S&P500 (CA $)	-2.2	-8.9	7.4	3.6
International Equity				
Q1	2.4	-6.9	17.0	1.2
Median	1.6	-8.6	15.5	0.8
Q3	0.4	-10.4	9.8	0.0
MSCI - EAFE (CA $)	1.3	-8.8	12.5	-0.2

(1) With the exception of the three-month and one-year periods for which returns have not been annualized.
(2) Returns before management fees.

Source: Presented results combine pooled funds returns coming from Aon survey and Morningstar Direct database.

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