PENSION RISK MANAGEMENT ISSUES FOR CFOs

fei
financial executives international
dirigeants financiers internationaux
canada

cferf
canadian financial executives research foundation
fondation de recherche des dirigeants financiers du canada

MERCER

ACKNOWLEDGEMENTS

We gratefully acknowledge the efforts of our survey respondents and our forum participants who took valuable time away from their day jobs to participate in this work. We are particularly grateful to our research partner, Mercer Canada, without whom this study would not have been possible.

Christian Bellavance
Vice President, Research and Communications
Financial Executives International Canada

First published in 2013 by CFERF.
1201-170 University Ave.
Toronto, ON
M5H 3B3

ISBN# 978-1-927568-03-3

CONTENTS

EXECUTIVE SUMMARY

Defined benefit (DB) pension plans have had a rough ride in the last decade. At the end of 2012, only about one in 20 Canadian DB pension plans were fully funded on a solvency basis. By far, the biggest factor in the decline is the fact that long-term interest rates have plunged to their lowest levels in 60 years. Other contributing factors include disappointing and volatile equity returns, increasing longevity expectations and employees retiring early on subsidized pensions. The increasing maturity of pension plans as active workforces decline in size relative to retiree populations has amplified the volatility, when costs are measured relative to the size of the plan sponsor.

It must be acknowledged that much of the pain is a result of the intentional and significant mismatch between DB plan assets and liabilities. Rather than investing in long bonds which mimic the behaviour of liabilities, most DB plan sponsors have invested substantial portions of plan assets in equities and other growth assets in the hope that this will generate higher returns and therefore reduce costs in the long-term. This bet has turned out badly over the last 12 years, and many private sector sponsors are now considering whether they are able and willing to continue taking this level of risk. Almost 60% of financial executives surveyed indicated that their pension plan posed either moderate or substantial risk to their organization.

Public sector plans are less likely to want to reduce risk – either because they have a higher risk tolerance, or because their structure requires them to take risk in order to keep long-term costs at a reasonable level.

DB plan sponsors who wish to derisk their pension plans have a variety of ways to accomplish this. For example:

- Risks could be transferred to another party such as an insurance company through an annuity purchase for some or all the plan members;
- The benefit policy could be changed to transfer or share risks with employees (such as moving to a DC plan or a target benefit structure);
- Investment policy could be changed to reduce the mismatch between assets and liabilities, or to protect against extreme events; and
- Funding policy strategies could be employed in order to manage the amount and plan the timing of contributions.

Each of the derisking strategies have its pros and cons – some take effect quickly but are very painful to implement, some will likely only defer the pain, and others are very effective in the long term but do not provide much short-term relief. This suggests that an effective derisking strategy will often involve the use of multiple approaches working in concert.

A critical observation is that the current environment – where plans are deeply underfunded and interest rates are at historic lows – is the most difficult time to make a significant derisking move. The risk could be reduced, but most plan sponsors are reluctant to sell equities and buy long bonds for fear of locking in deficits. This would guarantee deficits have to be filled by special payments rather than investment gains. The reluctance is largely due to the belief that deficits are artificially high because interest rates are artificially low due to monetary policies taken by central banks to ease the debt crisis. Sponsors are holding on to current asset mix strategies in hope of a recovery. However, this does not mean that the status quo should be preserved indefinitely. Plan sponsors should consider a comprehensive strategy for derisking, in incremental steps, and using many of the tools available to them. Mapping out a strategy in advance is crucial so that decisive actions can be taken when derisking opportunities present themselves.

METHODOLOGY AND DEMOGRAPHICS

Pension risk management issues for CFOs is based on the results of an online survey conducted by CFERF and sponsored by Mercer that took place between September 4, 2012 and October 1, 2012. During this time 131 respondents completed the survey. These results were expanded with insights gathered during executive roundtables held simultaneously in Toronto and Montreal on October 24, 2012 (see Appendix B). The majority of survey respondents worked for private sector corporations although some respondents worked for broader public sector organizations and the not-for-profit sector. 40% of respondents were CFOs, and 15% held the titles of VP Finance. More demographic information can be found in Appendix A.

OVERVIEW OF CHALLENGES FACING PENSION PLANS IN CANADA

As defined benefit pension plans become increasingly difficult for their sponsors to manage, they have moved from the back pages of newspapers to the front. Every day headlines reveal how pension issues have an impact on everything from stock prices, earnings forecasts and credit ratings to labour negotiations and disputes. Some unions, rather than trying to negotiate benefit improvements, are trying to negotiate better funding for pension plans. Even the future viability of a company or organization can hinge on a pension plan, since employers are required to fund deficits over short periods, and in many cases these shortfalls are very large relative to the employer's ability to generate free cash flow or their ability to borrow.

Most DB pension plans in Canada have suffered from significant volatility over the past dozen years, and are now in a significant solvency deficit position. In other words, most plans would not have enough money to meet their pension obligations if their sponsoring organization were to cease operations today. Mercer's Pension Health Index in Chart A illustrates the evolution of the solvency position of a hypothetical Canadian pension plan over this period – it shows that the financial health of pension plans declined drastically following the tech bubble burst in late 2000 and has remained in critical condition for the subsequent 12 years. Chart B illustrates that more than 60% of Canadian pension plans were less than 80% funded on a solvency basis on January 1, 2012, and that only about 1 in 20 plans would have had sufficient assets to meet their pension obligations if they were wound up at that time.

The poor health of pension plans reflects a combination of factors including record low interest rates, poor equity performance, and the fact that most plans have been and continue to be exposed to significant risk. These factors are explored further in the next section.

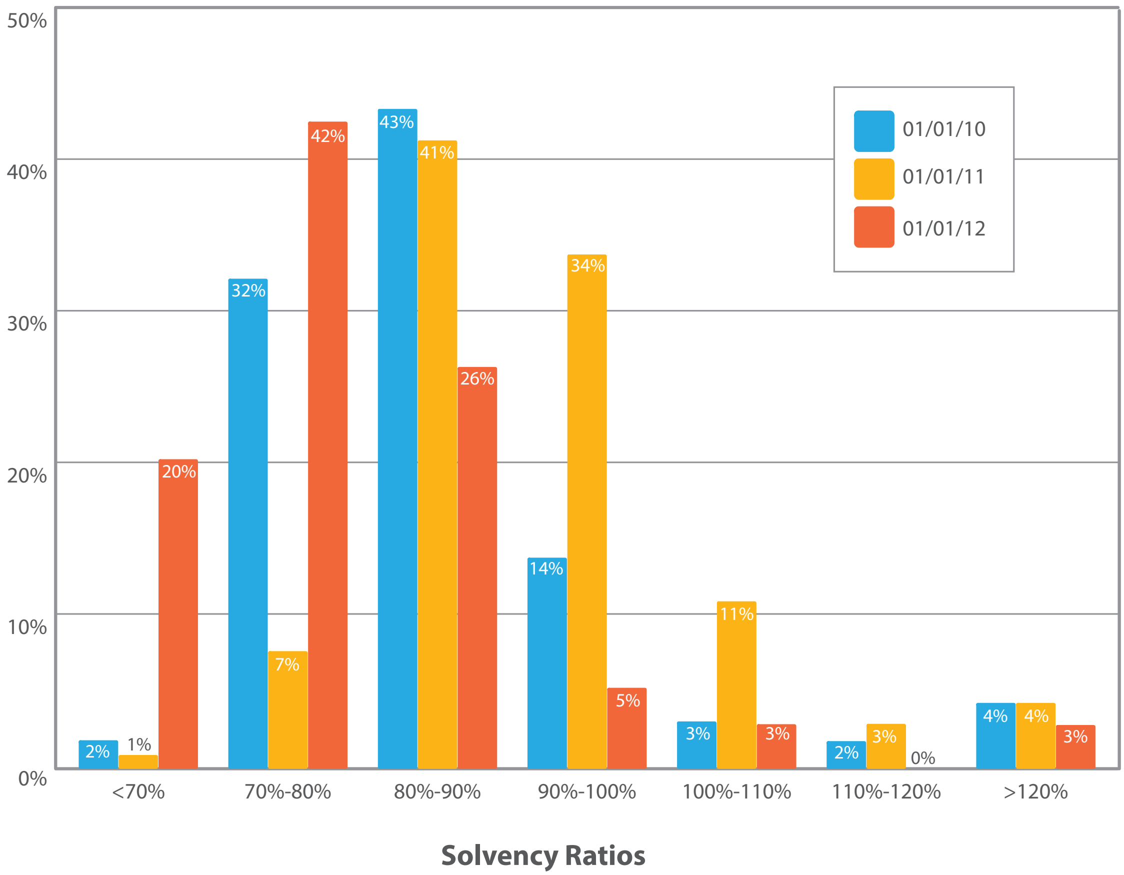
> "It would have been very difficult for anyone to forecast in 2001 that pension plans would face three major storms in the following decade, the collapse of the technology bubble in 2000-2001, the major correction of equities in 2008 and the sharp decline of bond yields to record lows in 2011-2012."
>
> **Richard Neault – VP, Pension Asset Management, Bombardier**

CHART A – CANADIAN PENSION PLAN SPONSORS HAVE HAD TO ENDURE SIGNIFICANT PENSION VOLATILITY OVER THE PAST DECADE [1]

[1] Mercer Pension Health Index, 2 January 2013. See http://m.mercer.ca/press-releases/1481865?detail=D
The Mercer Pension Health Index shows the ratio of assets to liabilities for a model pension plan. The ratio has been arbitrarily set to 100 per cent at the beginning of the period. The new Pension Health Index assumes no plan improvements and contributions equal to current service cost plus special payments to fund deficits over a 5 year period. The new Pension Health Index assumes that valuations are filed annually on a calendar year basis and that the deficit revealed in each valuation is funded on a monthly basis over the subsequent 5 years.
Assets: Passive portfolio with asset mix of: Asset mix: 42.5% DEX Universe Bond Total Return Index; 25% S&P/TSX Coposite; 15% S&P 500 (CAD); 15% MSCI EAFE (CAD); 2.5% DEX 91 day T-Bills.
Liabilities: 50 per cent active members, 50 per cent retired members; Canadian Institute of Actuaries transfer values (April 2009 standard, including changes effective February 1, 2011, for transfer values after February 1, 2011) without the one-month lag for active members and annuity purchase proxy values for retired members. Results will vary by pension plan.

CHART B – SOLVENCY RATIOS OF CANADIAN PENSION PLANS, 2010-2012

A vast majority or plans are deeply underfunded...



	1/1/2010	1/1/2011	1/1/2012
Portion of plans in solvency deficit	91%	83%	94%
Average solvency ratio	87%	93%	79%

2010 results are based on Mercer Pension Database as at December 31, 2007, while 2011 and 2012 results are based on Mercer Pension Database entries as at December 31, 2008 and December 31, 2009, respectively. 2012 results also reflect the 90 bps spread on annuity proxy liabilities effective December 31, 2011.

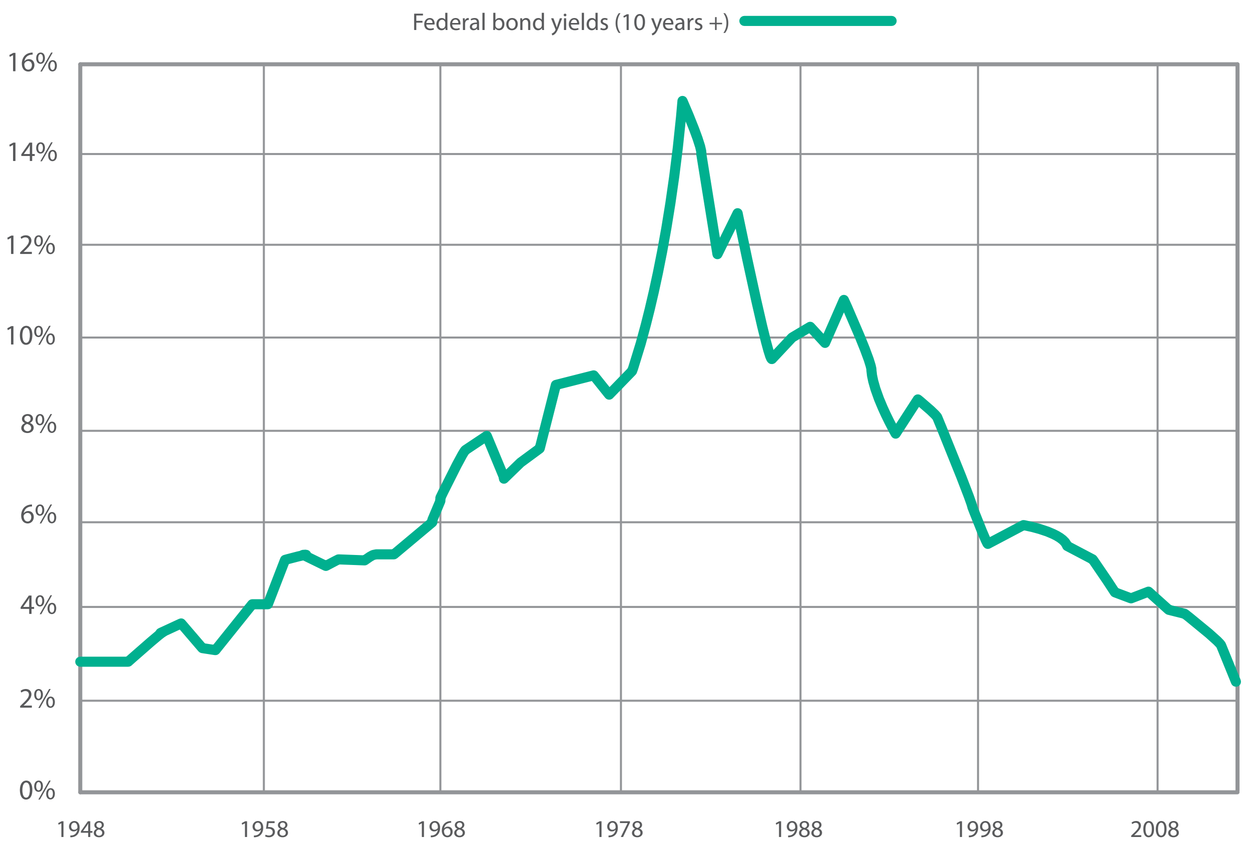
A review of defined benefit pension plans in Canada and the United States from 2002 to 2011 by DBRS, a debt rating agency, found the combined funding deficit of 451 defined benefit plans grew to $389 billion in 2011[2]. Since DBRS has said it considers 80% to be a reasonable funding threshold, more than two-thirds of the defined benefit plans it reviewed in 2011 were underfunded by "a significant margin." According to the report, "In order for companies to address this funding gap, employers will have to maintain high levels of contributions, as many plans have now entered the danger zone of funded status."

KEY FACTORS AND TRENDS AFFECTING DEFINED BENEFIT PLANS

By far, the most important cause of the deterioration in the financial position of pension plans is the decline in long-term interest rates. Long-term interest rates are used to determine pension liabilities – as interest rates fall, liabilities increase. Typically a 100 basis point (1%) decline in interest rates increases pension liabilities by 10% to 15%. While declining interest rates also increase the value of the fixed income investments held by pension plans, this typically only offsets about a quarter of the impact on pension plan liabilities. Long-term interest rates are close to the lowest levels seen in more than 60 years (Chart C). Since the turn of the 21st century, long-term interest rates have declined from just under 6% per year to about 2.4% per year as of December 2012. As a result, pension liabilities are more than 40% higher today than they would be if interest rates had remained at year 2000 levels.

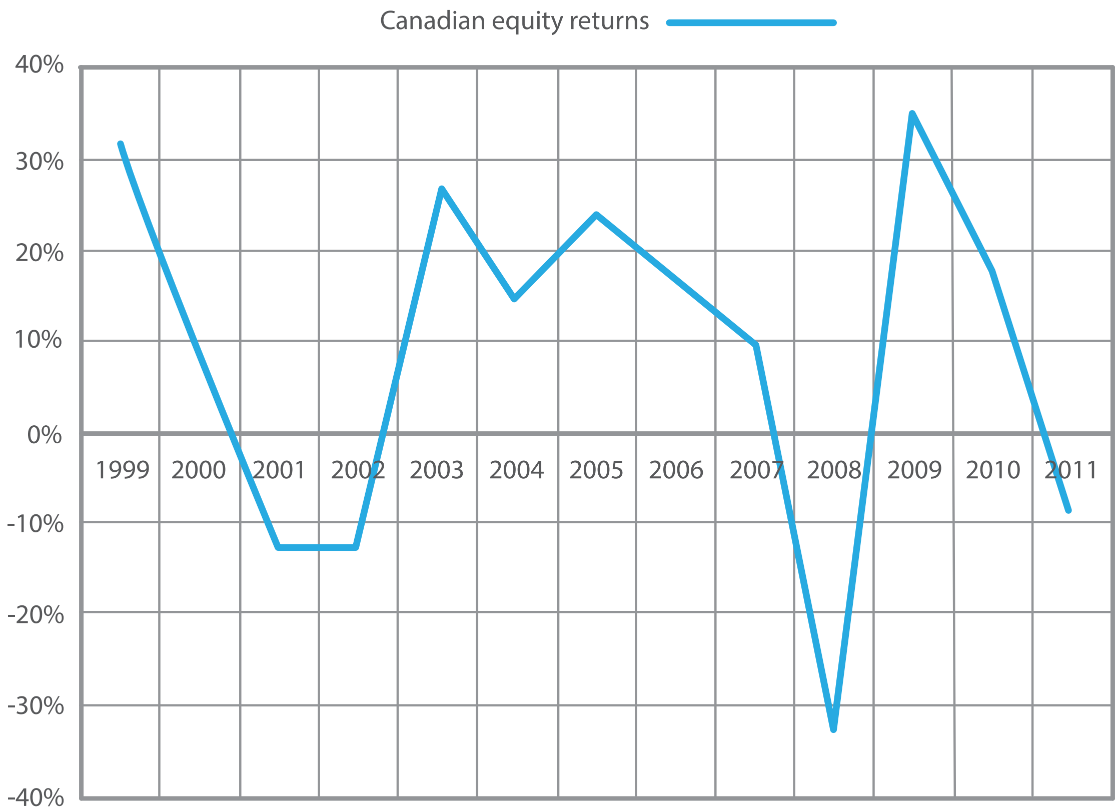
[2] DBRS. "Pension Plans: Discounting into the Danger Zone." August, 2012

CHART C – FEDERAL BOND YIELDS



A secondary, but also important contributing factor to the decline in the position of pension plans has been the disappointing and volatile equity market performance over the past decade (Chart D).

CHART D – CANADIAN EQUITY RETURNS, 1999-2011



"The two current issues are volatile and choppy investment returns and low discount rates. The first issue is cyclical and expected somewhat. The second issue is more troubling in that the liabilities will be paid out over the next several decades and it seems hard to justify the current concept of marking the value to relatively short-term interest rates."

– Survey respondent

"Our under-funded status due to lower interest rates and lower fund asset returns, causes large increases in cash and pension expense for the company to contribute special payments."

– Survey respondent

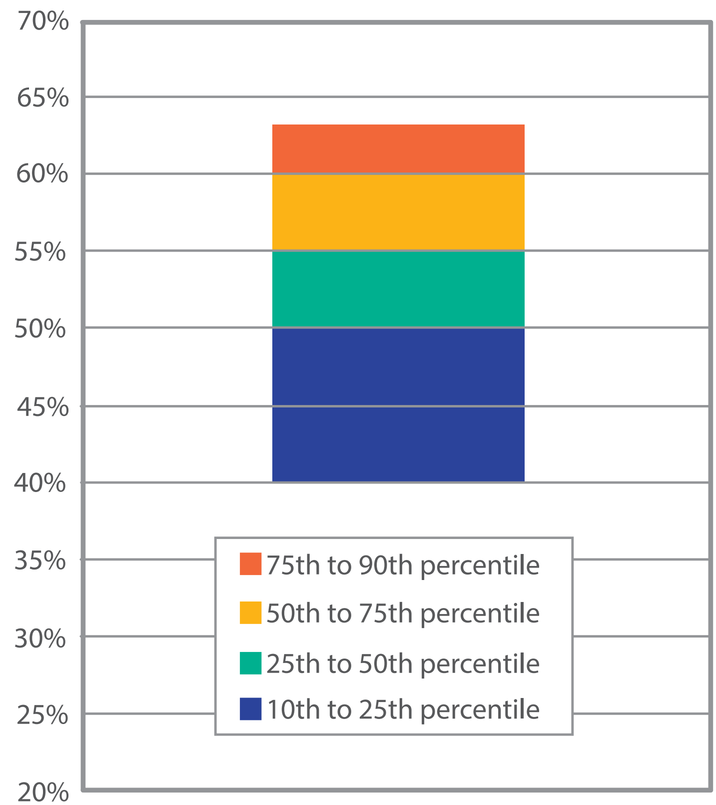
Another perspective on low-interest rates

"Record low interest rates increased pension plans liabilities but, at the same time, allowed governments and companies to borrow at very cheap rates. So when you look at the two together, it's not necessarily a negative to the extent that interest rates will not remain low forever."

Richard Neault – VP, Pension Asset Management, Bombardier

As noted previously, the principal causes of pension underfunding are first, record low interest rates and second, poor equity market performance. These factors have had such a profound impact because most pension plans have a significant mismatch between assets and liabilities. According to Chart E, the typical plan has about 55% of its assets invested in growth assets such as equities, and only 10% of plans have less than 40% of their assets invested in growth assets. Most plans have less than half of their assets invested in fixed income assets designed to match liabilities. The net result is that in most cases, pension liabilities are much more sensitive than pension assets to changes in interest rates. This mismatch between assets and liabilities is intentional – pension plan sponsors invest sizeable portions of assets in equities and other growth assets in the hope that they will outperform bonds and result in lower costs over the long term. Unfortunately, that bet has turned out very badly over the past decade or so. "Liabilities behave like long bonds. If you have significant portions of your assets invested in equities, and interest rates go in the wrong direction, and equities don't behave, that's what happens," noted Manuel Monteiro of Mercer.

CHART E – DB PENSION PLANS WITH MORE THAN $100M IN ASSETS



Based on Mercer Pension database

In addition to the economic factors discussed previously, demographic factors have also negatively impacted pension plans. Recent studies in both the U.S. and Canada consistently show that people are living longer. According to Statistics Canada, life expectancy for seniors has also been on an upward trend over the last 15 years. A senior in Canada at age 65 could expect to live an additional 20.2 years in 2007-2009, up 2.1 years from 1992-1994[3]. Long life expectancies mean that the time workers collect pensions may be longer than previously anticipated. While there has been some slowing of the trend following the recent financial crisis, members of DB pension plans tend to retire well before age 65. Meanwhile, pension plans are becoming more mature as the demographic bulge of the baby boom nears retirement, and the sizes of active workforces in certain sectors of the economy shrink. The combined impact of improved longevity, early retirement and increasing plan maturity adds further stress to defined benefit pension plans.

Issues more complex than plan design: Early retirement trend hurting DB pensions

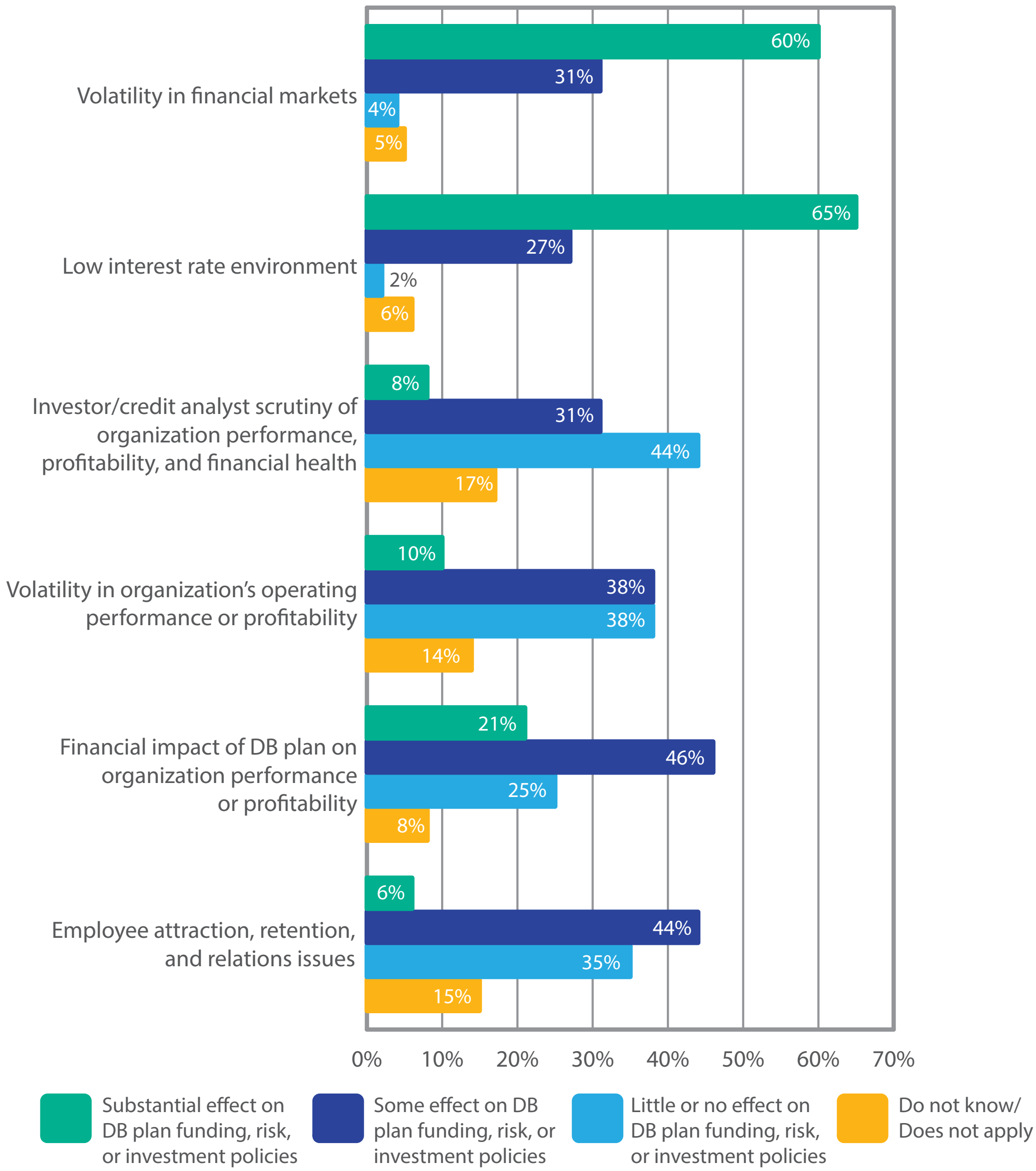
“Thank you very much London Life for Freedom 55. So we have all these people who are thinking that they should be able to retire at age 55. I think we need to encourage our workforce to work longer. And I actually have to take my CEO aside and I tell him: ‘You’ve got to stop encouraging people to retire before age 65.’ I said: ‘Look at this actuarial valuation. See that line here. That’s a gain because people are retiring later than the actuaries think they’re going to be retiring.’ So he then understood that, but I really think that the issues are more complex than plan design. I think we really have to change our mindset in terms of how long people work. I really intend to work for a long time because I like what I do. And I think that’s important -- that you can’t just stop having fun and enjoying work at age 65 because you just hit that very arbitrary age. And I think we have to take advantage of that.”

– Forum participant

[3] The Daily, Statistics Canada, May 31, 2012

Survey responses concerning key factors affecting pension policy decisions were consistent with the observations in Chart F. For instance, low interest rates were cited as the leading factor affecting respondents' policies for funding, risk management or investment in their DB plans over the past five years. This was followed closely by market volatility, cited by 60% of DB plan sponsors, as having had a "substantial" impact on their organization's DB plan policies.

CHART F – TO WHAT EXTENT HAVE THE FOLLOWING FACTORS AFFECTED YOUR ORGANIZATION'S POLICIES FOR FUNDING, RISK MANAGEMENT, OR INVESTMENT IN ITS DB PLAN OVER THE PAST FIVE YEARS?



The previous discussion focuses primarily on the solvency financial position and funding requirements for DB plans. It is important to note that a similar story exists with respect to the accounting for DB pension plans in financial statements. The elimination of smoothing and amortization mechanisms in accounting standards has brightened the spotlight on the significant earnings and balance sheet volatility that DB pension plans have the potential to cause for public companies. Of added concern for financial institutions such as banks and insurance companies is the impact on regulatory capital requirements that can be caused by swings in "marked-to-market" DB plan deficits.

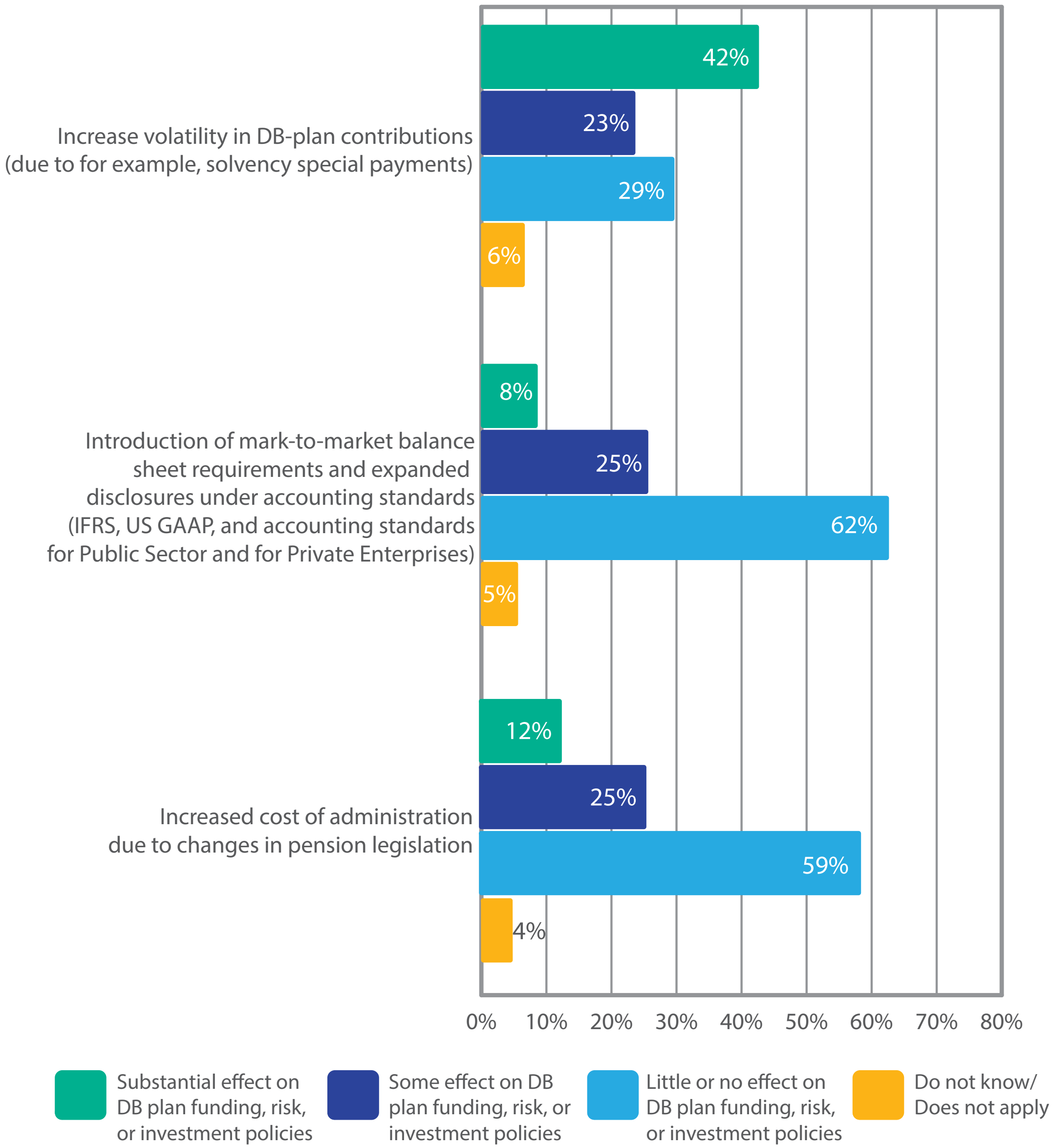
While survey respondents identified volatility in cash funding as being the most important factor in organizational decision making around DB plans over the past five years (Chart G), financial statement volatility is often of even greater importance for public companies and financial institutions.

We note that there is a significant bifurcation of views on this subject between the private sector and public sector. Public sector employers are far less likely to want to reduce risk than private sector employers, for a number of reasons:

- they may have a higher risk tolerance than private sector employers, due to their taxation power;
- public sector pension costs are often not measured or reported on a mark-to-market basis. Consequently, the level of pension costs appears to be less volatile than they do for private sector employers; and
- in some cases, the plans are structured so that costs are shared in a defined proportion (often equally) between the employers and employees. In these cases, these plans are forced in the current ultra-low interest rate environment to take risk in order to keep contribution rates at a reasonable level.

Public sector employers are increasingly looking to alternative investments such as infrastructure, real estate, hedge funds, private equity, commodities, timberland and farmland. In some cases, these investments are seen as a source of additional return. However, in other cases, they are seen as an alternative way to diversify or reduce risk.

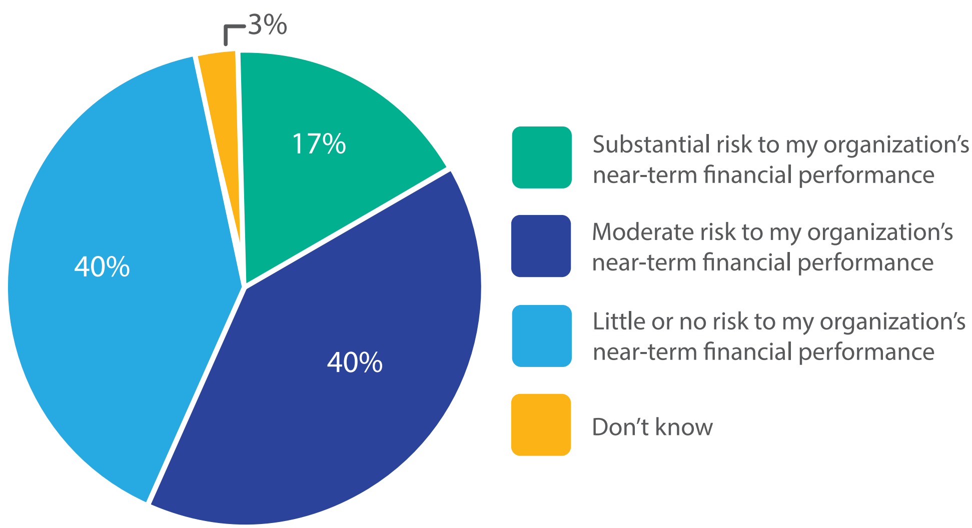
CHART G – TO WHAT EXTENT HAVE THE FOLLOWING REGULATORY FACTORS AFFECTED YOUR ORGANIZATION'S DB PLAN FUNDING, RISK MANAGEMENT OR INVESTMENT POLICIES FOR ITS DB PLAN OVER THE PAST FIVE YEARS?



RISK MANAGEMENT FRAMEWORK

A significant proportion of finance executives are concerned about the impact of DB pension plans on their organization's financial performance in the short-term: a majority of respondents say that their DB plan poses at least a moderate risk in the near-term.

CHART H – WHICH OF THE FOLLOWING STATEMENTS BEST DESCRIBES THE IMPACT OF YOUR ORGANIZATION'S DB PLAN ON YOUR ORGANIZATION'S NEAR-TERM FINANCIAL PERFORMANCE?



While many respondents feel that they understand how to manage or mitigate these risks (Chart I), they see significant barriers to implementing these strategies. The primary three obstacles were seen as employee relations issues (44%), regulatory or accounting requirements (40%) and economic volatility and uncertainty (40%) (Chart J). Rio Tinto Alcan Inc., for instance, is in the early stages of talks with its Canadian unions about the possibility of introducing target benefits or other types of pension plans in the future. "It can be difficult to make changes at the moment considering the unions are strongly in favour of protecting their DB pension plans," said Vincent Morin, Principal Actuarial Advisor-Canada, Rio Tinto Alcan Inc.

CHART I – IN YOUR OPINION, HOW WELL EQUIPPED IS THE SENIOR FINANCE TEAM AT YOUR ORGANIZATION TO DEVELOP AND CARRY OUT ITS DB PLAN STRATEGY OVER THE NEXT TWO YEARS?

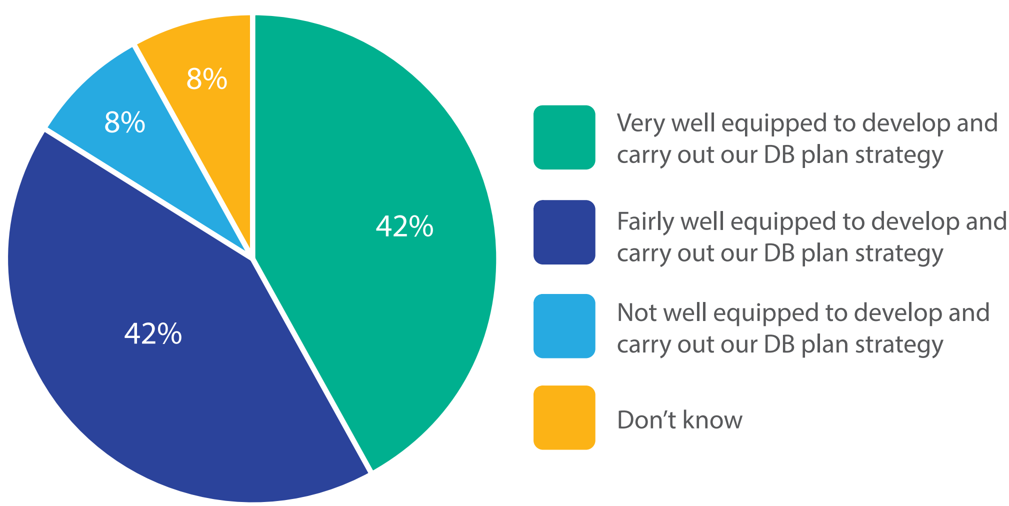
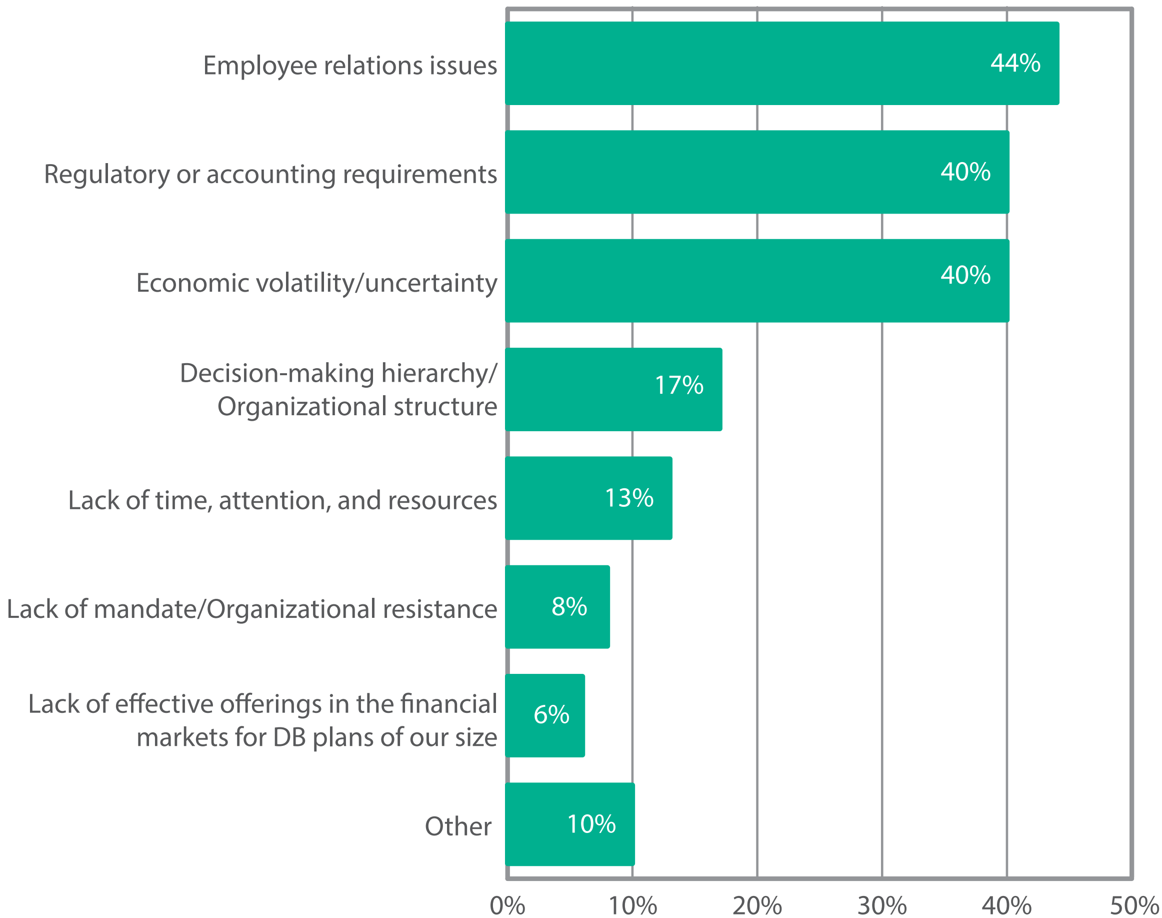


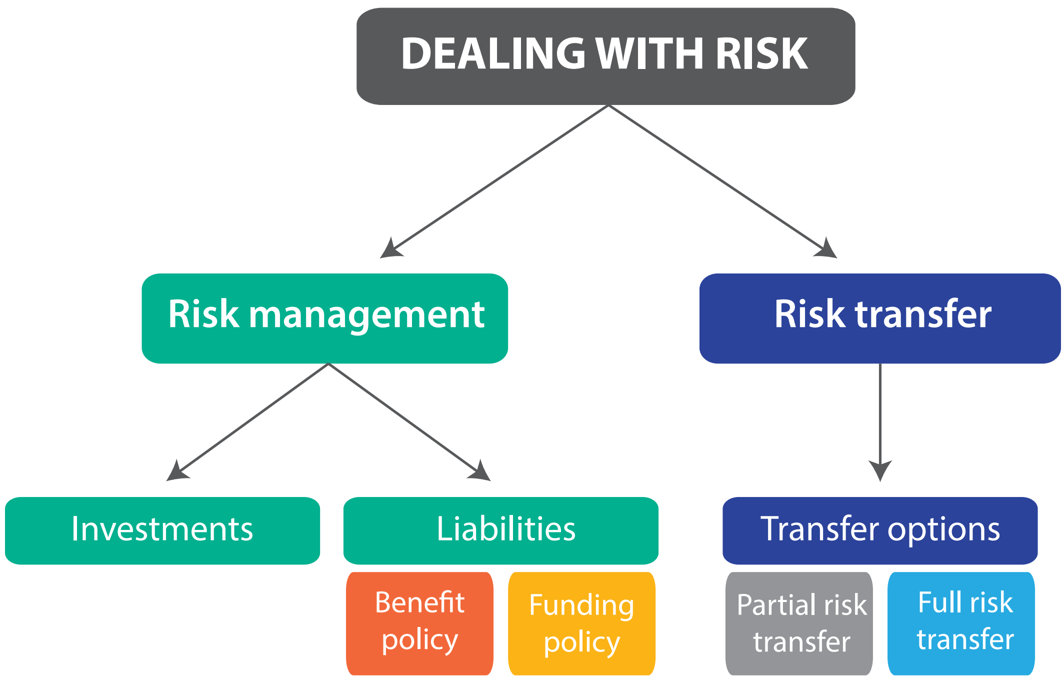
CHART J – WHICH OF THE FOLLOWING OBSTACLES, IF ANY, ARE MOST LIKELY TO LIMIT YOUR FINANCE TEAM'S ABILITY TO MAKE NEEDED CHANGES IN YOUR ORGANIZATION'S DB PLAN OVER THE NEXT TWO YEARS?



A FRAMEWORK FOR MANAGING PENSION RISK

It is very clear that many organizations are not comfortable with the level of risk that they are exposed to by their DB pension plan. Many organizations are looking for ways to mitigate these risks in an effective manner. The flowchart below provides a holistic framework for managing pension risk.

CHART K – DEALING WITH DB PENSION PLAN RISK



The most effective way to reduce pension risk is to transfer some or all of the risk to another party (the right side of the flowchart on p 19). This is typically accomplished by purchasing annuities from an insurance company or by paying lump sums to the plan members. Annuity purchases were previously thought to be impossible for large pension plans with billions of dollars of liabilities. However, the ground-breaking multi-billion dollar transactions in 2012 by General Motors and Verizon in the United States will likely ripple through to the Canadian market in the coming years. While risk transfers can be very effective in reducing risk, there are complicated fiduciary issues that plan sponsors will need to consider before proceeding with such a transaction.

Unfortunately, risk transfers do not come cheap, particularly when pension plans are deeply underfunded. Risk transfers often require accelerated cash funding and result in significant accounting charges. Many organizations will conclude that they can't afford a risk transfer in the current environment, and will decide to manage the risk in other ways (the left side of the flowchart on p 19) at least until a risk transfer becomes affordable.

Sponsors who reach this conclusion have three levers to manage the risk: benefit policy, investment policy and funding policy. Like different types of medication, the three policies have different strengths and become effective over different timeframes. Consequently, a comprehensive pension risk management strategy will almost always involve all three policies working in concert.

Derisking options

"How do you manage the risk if you can't afford to transfer the risk to another party, like an insurance company? The most obvious way is probably through investments. Obviously if your liabilities behave like bonds, if you move your assets into something that behaves more like bonds you can reduce your risk because your assets and liabilities will move together. You can also do something with your liabilities, and a lot of companies have made changes to benefits to reduce the risks associated with defined benefit promises, such as moving to DC or introducing some form of risk-sharing mechanism. There are also funding strategies, things like using letters of credit, for example, to fund solvency deficiencies rather than making cash payments. So if you can't afford to transfer the risk, you can manage the risk through investments, through benefit policy and through funding policy."

Manuel Monteiro – Partner, Mercer (Canada) Ltd.

BENEFIT POLICY

Benefit policy is probably the most powerful policy lever to manage pension risk. Unfortunately, it usually takes a very long time to have a meaningful effect.

This is because benefit plan changes virtually never affect benefits for current pensioners, which often make up the bulk of the plan liabilities. In fact, plan changes typically only affect benefits to be accrued in the future – they rarely affect the benefits that have already been accrued by plan members.

Benefit policy can be used to reduce the plan sponsor's risk in one of the following three ways:

1. Reduce the size of the overall benefit promise, for example by moving to a lower accrual rate, reducing early retirement subsidies or other ancillary benefits;
2. Ask employees to share a greater portion of cost of the pension – generally by increasing employee contribution levels; or
3. Change the structure of the plan to transfer some of the risks to employees.

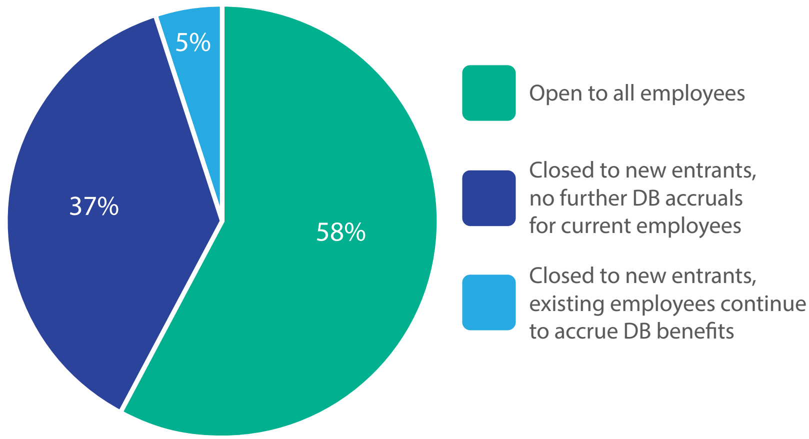
Under traditional DB plans, most of the risks are borne by the plan sponsor. The benefit policy lever can be used to mitigate an organization's DB pension risk by transferring or sharing some or all of the costs and risks with employees. The most common way to do this is to transition from a DB plan to a DC plan. There is a clear trend away from DB towards DC around the globe. While the trend definitely exists in Canada, the pace of change is much slower and the transition approaches are more gradual than they are in other countries such as the U.S., U.K. and Australia.

"We closed our DB plan to new hires, hard froze employees with less than 20 years' service and soft froze employees with 30 or more years of service (DB plan replaced with a DC)."

Survey respondent

Of those survey respondents with DB plans, 58% remain open to all employees, 37% are closed to new entrants with existing employees continuing to accrue DB benefits, and 5% are closed to new entrants, with no further DB accruals for current employees (Chart L). In contrast, a similar survey conducted in the U.K. in the fall of 2012 by Mercer in conjunction with ICAEW[4] revealed that more than 90% of DB plans in the U.K. were closed to new employees, and that more than 50% of DB plans in the U.K. were closed to all future accruals.

CHART L – WHAT IS THE STATUS OF YOUR DB PLAN?



WHY KEEP DB? STAFF RETENTION IMPLICATIONS

"We are growing at a tremendous rate. We need to ensure that we have a benefit program that attracts and retains staff. The DB program is a very attractive feature."

Survey respondent

"It really ties into what is the industry doing at large. What does it mean in terms of attraction and retention of people, because when moving away from DB to DC, if the rest of your industry is not going down that path, you're making some pretty critical decisions there that could come back and bite you."

Narin Kishinchandani – VP Finance, Enbridge Gas Distribution Inc.

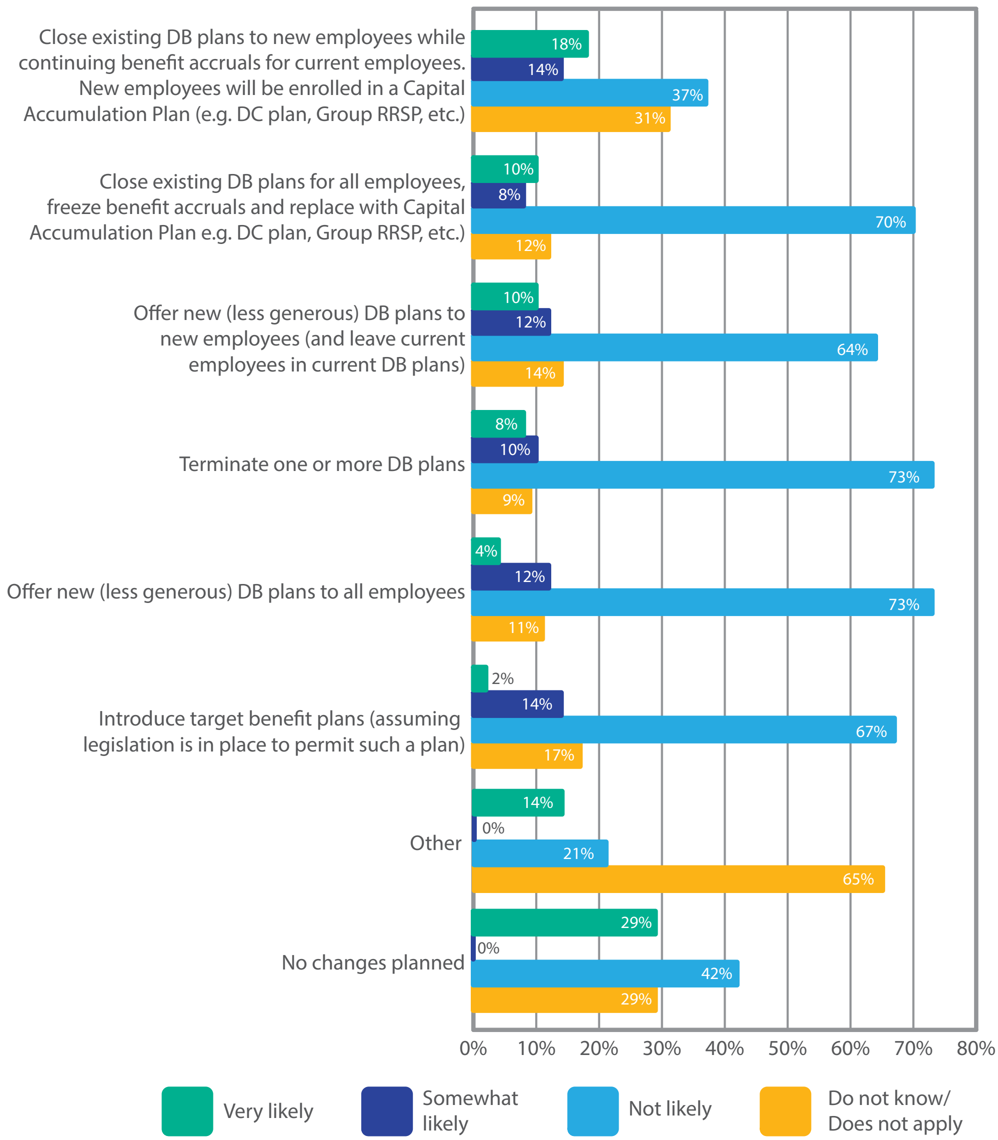
"If you have a 20-year employee that still wants to do different things, be promoted, but the company does not see any further role progression for them or cannot accommodate that then we find ourselves in a difficult position. The employee loses some engagement but doesn't choose to leave for fear of the potential lost retirement benefits. … It's very difficult for long-term employees to self-select out of an organization, because they're so vested in the DB plan at this point in time of their career."

Kent Carson – CFO, Holcim Canada

[4] The Institute of Chartered Accountants in England and Wales

Nevertheless, while the pace of transition to DC has been slower, the trend continues. Almost a third of participants said they were either somewhat likely or very likely to close existing DB plans to new employees while continuing benefit accruals to current employees (Chart M).

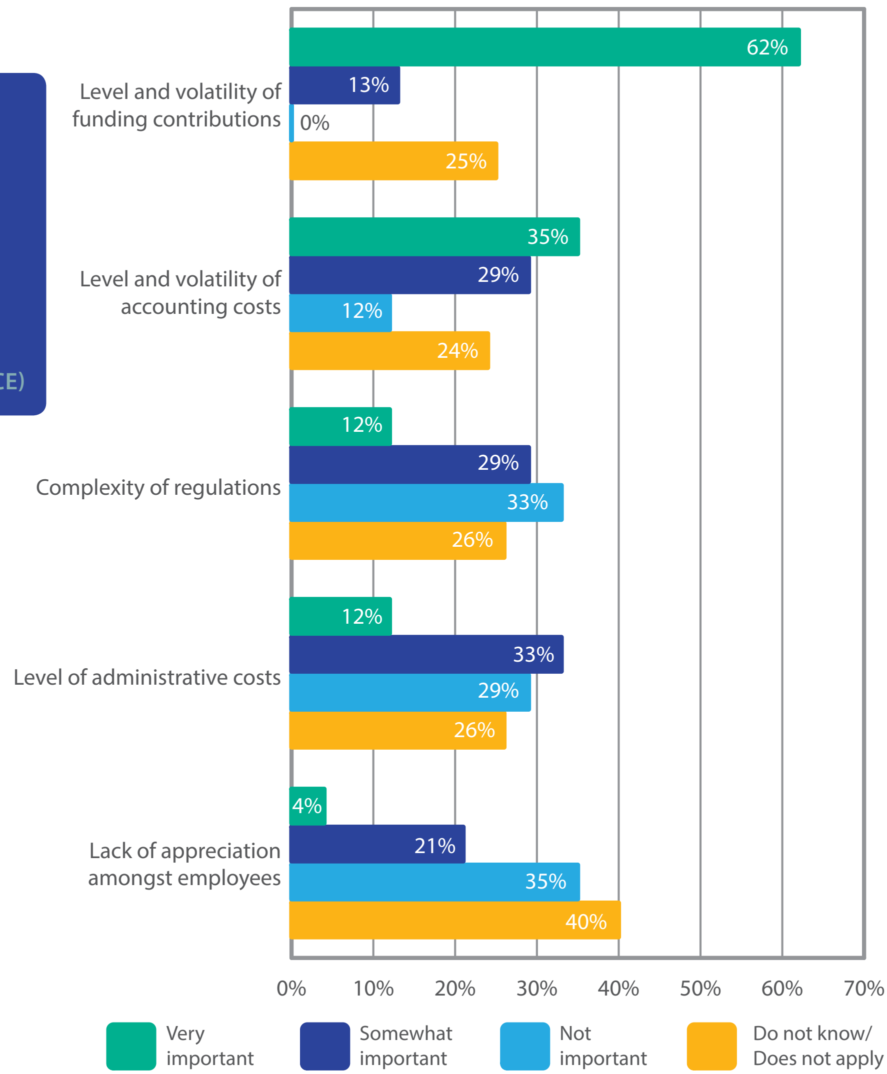
CHART M – LIKELIHOOD OF CHANGES BY DB PLAN SPONSOR:



DRIVERS OF CHANGE

The majority (62%) of organizations which made changes or are considering changes to their DB plans cited the level and volatility of funding contributions as a very important leading driver of change, while 13% said it was somewhat important. Publicly traded companies also indicated the level and volatility of accounting costs was an important driver of change (Chart N).

CHART N – IF YOUR ORGANIZATION IS CONSIDERING A CHANGE (OR HAS ALREADY MADE A CHANGE) TO ITS DB PLAN, IDENTIFY THE KEY DRIVING FACTORS.
(PLEASE RANK THE IMPORTANCE)



Drivers of change

"At CN, we're rather conservative. We have DB plans. We closed most of them to management but we have them open to unionized employees. If one major Canadian company starts to freeze those DB plans and transfer employees out of there into DC plans, the rest will certainly follow. I'm not sure if we're there yet right now."

Charles Tortorici – Manager, Financial Reporting, CN

"The risk profile of DB is increasing; therefore we are considering changing to DC."

– Survey respondent

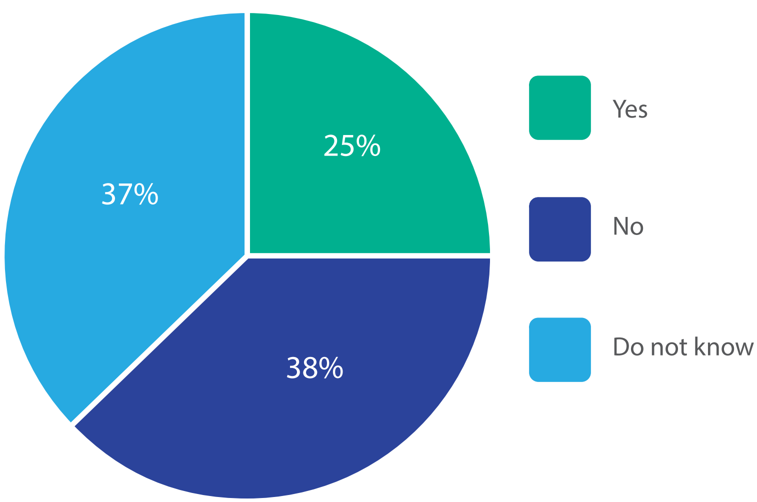
"Over the past few years, large companies in the US have been closing (freezing) DB plans; Canada is moving at a much slower pace with some migration towards DC plans. However, DB plans still remain intact, primarily in the public sector and larger companies."

Norm Ferguson – Managing director, Ogilvie LLP and Chair, Pensions Task Force, Issues and Policy Advisory Committee, FEI Canada

IS THE DC MODEL SUSTAINABLE?

In the long term, a move to a DC plan will certainly be effective in reducing the pension financing risks faced by an organization. However, this is accomplished by transferring the pension risks to the individual employees. In addition to the transfer of risk from employers to employees, a move from DB to DC also eliminates the pooling of risks across employees – each individual employee becomes responsible for their own risk. There are growing concerns about whether individual employees understand and are able to bear the risks under DC plans. Only a quarter of survey respondents which have or are considering a DC plan think employees are able to make appropriate investment decisions (Chart O). The remaining three quarters either believed that employees were not able to make appropriate decisions or were skeptical about their ability to do so.

CHART O – DO YOU BELIEVE THAT YOUR ORGANIZATION'S EMPLOYEES ARE GENERALLY ABLE TO MAKE APPROPRIATE INVESTMENT DECISIONS?



A RANGE OF VIEWS ON DC PLANS: PROS AND CONS

"Having had a DC plan for years, I would urge sponsors to be very, very careful about this tidal wave of derisking and maybe decosting by moving from DB to DC plans, because it's a big issue for us. An employee with 30 or even 35 years of experience having contributed to a DC plan, what sort of a retirement income are they going to have? It's not going to be very significant, so that if you wanted, if the objective – in part of our retention of employees and compensating them – is for them also to have a retirement income, a DC plan isn't necessarily the way to go. And your cost per ultimate benefit dollar is probably going to be a lot less in a DB plan then a DC plan ... I think ultimately when you're dealing with a lot of unsophisticated employees who don't really understand their investments, if you want to create that retirement income for them, it is very difficult to do it purely from a DC plan."

Tony Hooper – Vice President, Finance and Administration, Unilock Group of Companies

"How do we help employees in DC plans ensure they have adequate retirement savings? Their knowledge and interest in the investment options appears limited and it's difficult to engage employees in this area. We continue to provide education, round tables, webinars, etc. but the take up rate is low so it remains a challenge."

Jayne Connolly – Pension Director and Chief Accountant, IBM Canada

"DC plans are here to stay. And I think plans sponsors have to offer good investment options to help employees achieve good returns. I think this is achievable with some recipe like having a very strong default investment option, which looks at the long term and not necessarily at minimizing risk for the short term."

Richard Neault – VP, Pension Asset Management, Bombardier

"The advertising phrase of 'Freedom 55' has set an expectation for the public that, after the 2008 market crash, is most likely not achievable. It may in fact become 'Freedom 75' for many Canadians without DB plans."

Norm Ferguson – Managing Director, Ogilvie LLP and Chair, Pensions Task Force, Issues and Policy Advisory Committee, FEI Canada

Case study: Moving from DB to DC

When the Canadian Institute of Chartered Accountants decided to move from a DB design to a DC design for future pensionable service, it provided 18 months of notice of the change to all staff and a further three years of notice to people whose age plus years of service equal 55 years or more, according to Nigel Byars, EVP for the CICA. "The extended notice period was given to mitigate the risk that the amount of notice of the changes might be found to be inadequate," Byars said. "Fundamentally a change from DB to DC is also, in part, an ethical question because the result of what you're doing is that you are transferring a series of pooled risks from an employer, who has mitigating strategies available, to an individual who takes on a series of single risks and has almost no means of trying to mitigate the risks. Mitigating the risks is a pretty challenging thing in this environment. What it really comes down to at the end of the day is to say that if long term interest rates are going to stay anywhere near the territory that they are now in, which is the lowest they've been in North America in many years, and if investment returns are going to continue to show significant major volatility on a recurring basis, are retirement programs sustainable?"

TARGET BENEFIT PLANS

It is clear that many employers, particularly in the private sector, believe that the traditional DB plan model is unsustainable. There is increasing concern amongst some observers that a pure DC model may also be unsustainable in the longer term. This has led some to search for solutions in the middle of the spectrum that involve some elements of sharing and/or pooling of risks. One possible approach that has been gaining increasing attention are target benefit plans.

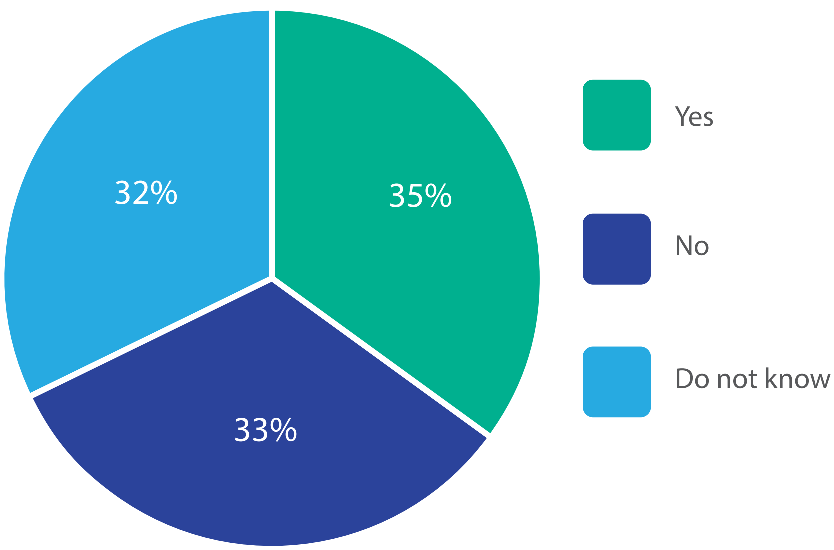
A target benefit plan is a plan that aims to have stable contributions like DC plans and aims to provide (but does not guarantee) predictable lifetime pensions like DB plans. With a target benefit plan, investment decisions are made on a centralized basis rather than by individual members. Unlike DC plans, target benefit plans pool investment risk and mortality risk across individual plan members. Target benefit plans should be able to provide more predictable pensions than DC plans because target benefit pensions will generally not be determined based on “point-in-time” interest rates and account balances, and because the funding policies for these types of plans will involve the use of margins and various mechanisms to spread gains and losses over time.

The province of New Brunswick has taken the lead in this area by introducing enabling legislation, and permitting traditional DB plans to convert to a target benefit plan structure on a retroactive basis. Several public sector plans and a private sector plan in New Brunswick are in the process of transitioning to a target benefit plan structure. Other provinces have also indicated their intention to introduce permissive legislation, although it is questionable as to whether they will permit retroactive transition. If a retroactive transition approach were permissible, a move to a target benefit plan may actually reduce risk faster than a move to DC (since a retroactive approach to DC is generally not permissible).

Target benefit plans will certainly involve increased administration, actuarial and governance efforts and costs compared to DC plans. Consequently, they may not be accessible to smaller employers unless they are able to join a multi-employer target benefit plan structure.

Respondents were evenly divided when asked whether they would consider a target benefit plan as an alternative to a DC plan – one third said they would, one third said they would not, and the other third of survey respondents did not know about target benefit plans, indicative of the fact that the concept is new to most finance executives and is not yet fully developed or tested (Chart P).

CHART P – WOULD YOUR ORGANIZATION BE INTERESTED IN PARTICIPATING IN OR ESTABLISHING A TARGET BENEFIT PLAN AS AN ALTERNATIVE TO A CAPITAL ACCUMULATION PLAN?



INVESTMENT POLICY

Along with benefit policy, investment policy is also a powerful policy lever to manage pension risk. Unlike benefit policy, investment policy can be changed to substantially reduce pension risk in a very short timeframe. The problem is that it is very painful to pull hard on the lever when plans are deeply underfunded and interest rates are at historic lows – as they are currently.

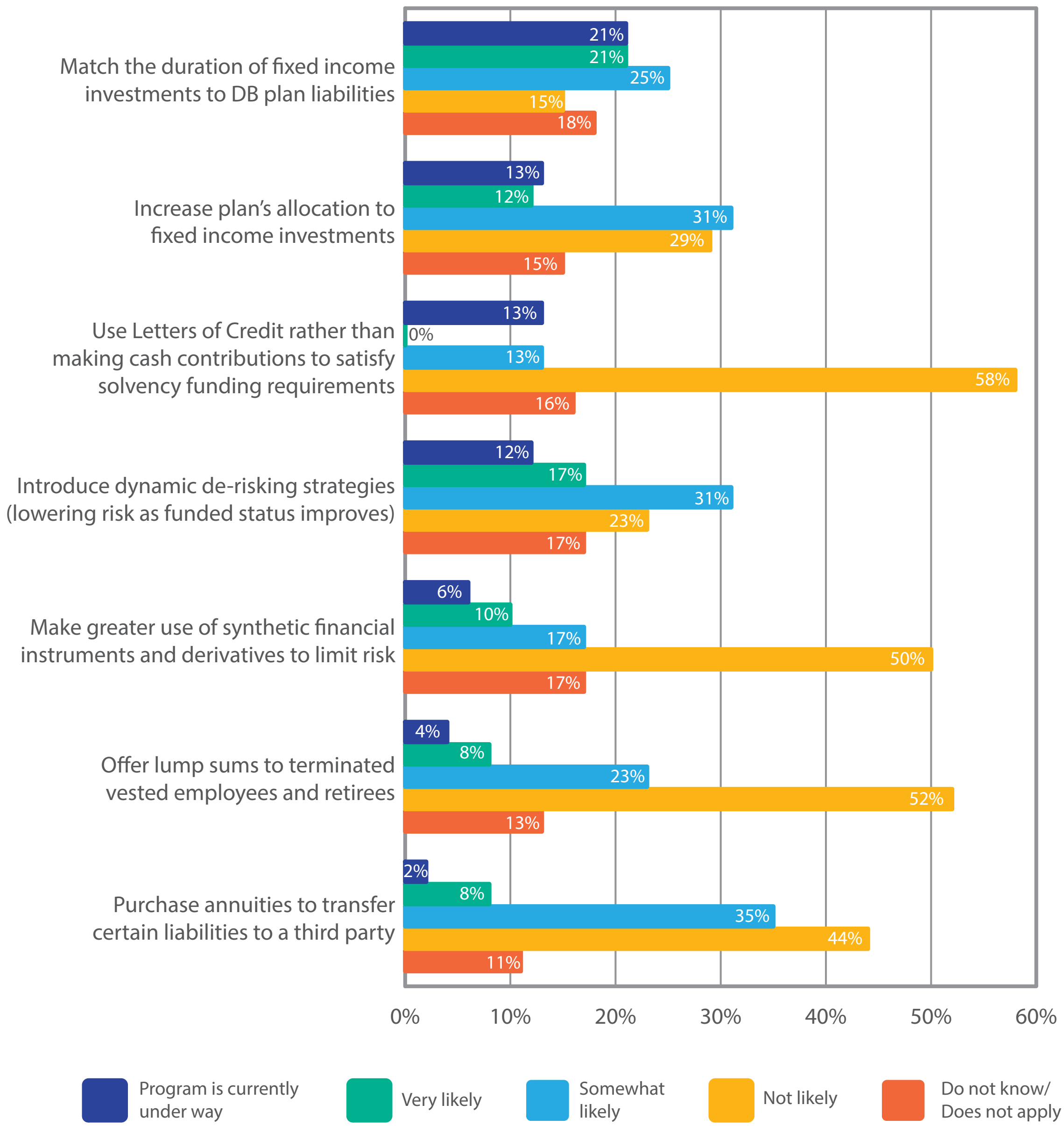
As discussed earlier, the assets and liabilities of most DB pension plans are significantly mismatched, which creates a significant risk exposure for plan sponsors. Pension risk can be substantially reduced by reducing this mismatch – selling equities and buying long bonds which behave similarly to liabilities. Most plan sponsors are reluctant to make a big move in this direction since this would be locking in deficits at current levels and virtually guarantee that the hole would have to be filled by contributions rather than investment gains. The reluctance is in large part because many believe that deficits are artificially high because interest rates are artificially low due to the various monetary policy measures taken by central banks around the world to ease the debt crisis. The potential for regret risk is high – the mismatch bet is deeply out of the money, and many sponsors are holding on to their positions in the hope of a recovery.

That being said, many sponsors would like to reduce this mismatch risk when times are better – when their plans are better funded, and when interest rates are at higher levels. In most cases, sponsors expect to reduce the mismatch on a gradual basis rather than all at once.

Plan sponsors who are convinced that interest rates are going to rise are looking to equities with high dividend yields and cash-flow yielding investments such as infrastructure and real estate as a short-term tactical alternative to long bonds.

Respondents with DB plans were asked about the likelihood of a range of investment derisking strategy initiatives that may be undertaken over the next two years (Chart Q).

CHART Q – HOW LIKELY IS YOUR ORGANIZATION TO UNDERTAKE THE FOLLOWING INITIATIVES IN CONNECTION WITH ITS DB PLAN OVER THE NEXT TWO YEARS



About 56% of respondents had already begun, were very likely or were somewhat likely to increase their fixed income allocation over the next two years, highlighting some reluctance to cash out of the mismatch bet in the current environment. 67% of respondents had already begun, were very likely or somewhat likely to better match the duration of fixed income investments to plan liabilities. Dynamic derisking strategies (selling equities and buying bonds as the funded status improves) was viewed by many as a likely future derisking strategy – this approach had already been introduced by 12% and 48% said this was also very likely or somewhat likely to be introduced in the next two years.

Survey participants were also asked to comment on three possible investment strategies that sponsors of underfunded plans may choose to employ (Chart R). The approach that the survey participants deemed most sound was reducing risk in the pension portfolio as the funded ratio approaches 100%, with 31% stating this was a very sound strategy, and 31% stating it was somewhat sound. Far less popular was the strategy of seeking aggressive returns for under-funded plans, and revising and executing funding, risk management or investment policies in quick response to capital market events.

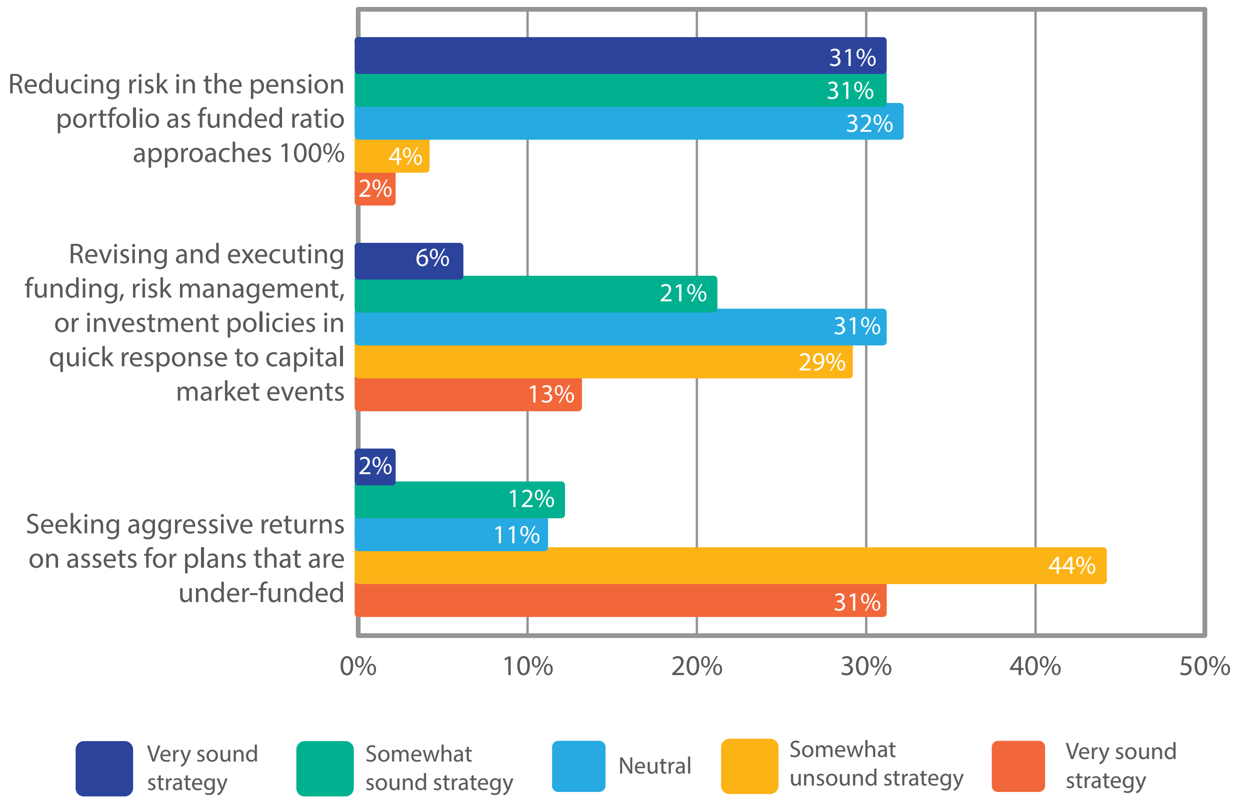
Case study – Bombardier: Derisking over time

“We have taken several steps to gradually reduce key risks that stem from both pension liabilities and assets, notably:
- Reduction of equity target allocation by approximately 20%;
- Liquidation of investments in hedge funds and private placements;
- Move to long-term bonds and long-term inflation-linked real return bonds;
- Implementation of nominal and real interest rate hedging overlay strategies;
- Introduction of real return assets exposure (i.e. infrastructure and real estate);
- Implementation of foreign currency exposure hedging strategies;
- Introduction of indexation capping of future benefits (U.K. plans);
- Defined contribution pension plans offered to new employees in several countries; and
- Substantial contributions to amortize deficits.

These steps helped attenuate the volatility of pension deficits related to the volatility of bond yields and equity returns.”

Richard Neault – VP, Pension Asset Management, Bombardier

CHART R – TO THE BEST OF YOUR KNOWLEDGE, HOW DOES YOUR ORGANIZATION GENERALLY VIEW THE FOLLOWING DB PLAN MANAGEMENT STRATEGIES?



"The timing of your liabilities would be one of the most important considerations in the question of derisking. To the extent you have a number of near term liabilities, holding equities poses a risk given the uncertainty of the path that equities will take. However there were a lot of good comments on the risks associated with buying long term bonds at low interest rates, so if you can withstand the short-term then equities may still be the best choice. At the very least, liabilities that are further out give you time to wait to derisk the plan."

Michael Baril – Director Market Research, Vale Canada Ltd.

"We have very few resources to be able to actively manage our assets. So we have actually implemented a glide path derisking strategy that is very mechanical, and it's based on very gradually changing the asset mix to increase the liability matching component ... (The) solvency ratio actually increases over time. But the issue is that we have a closed pension plan. We thought of it in terms of that end point. That end point is that the day will come when all of our active employees are retired. It was a question of effectively straight lining to that end point. It made a lot of sense."

John Weerdenburg – VP and CFO, Ottawa International Airport Authority

Risk tolerance a key in derisking decisions

"It seems to me, looking at the initial question of timing, that the response is one of saying both yes and no as the answer. If you want to derisk, the decision and timing depends on what your risk tolerance is. It depends on what the financial position of the plan is. And it depends on the duration of your liabilities. The approach that we take in our DB plan in structuring the asset mix is to focus on trying to match the duration of the retiree liabilities and our fixed income portfolio, because what's happened over the last 15 years is that the average age of active members has only moved two years. So we have a relatively long investment horizon for the active members and can withstand, with some reasonable tolerance, the higher volatility of the return on equities. But that's really what it all hinges on – how risk sensitive are you? If your tolerance for risk is very low, then you're better off to immunize and be done. If you've got more tolerance for risk or if you cannot now afford to make the transition, you have to balance out the importance of these factors."

Nigel Byars – EVP, Canadian Institute of Chartered Accountants

FUNDING POLICY

The funding policy lever is a much weaker lever than either benefit policy or investment policy. For the most part, funding policy does not change the ultimate cost of a pension plan – it simply changes the timing of when the costs are incurred.

Funding policy strategies can be effective in reducing the volatility of funding requirements from year to year, and can give sponsors more time to prepare for changes in required funding levels. Common strategies include:

- Contributing additional amounts in order to get above the funded ratio thresholds requiring annual valuations;
- Employing smoothing techniques and excluding certain benefits from solvency liabilities where permitted by legislation;
- Contributing additional amounts when economic conditions are good, and drawing down on these credit balances when times are bad, where permitted by legislation;
- Building up contingency margins when funded positions improve, and drawing down on the margins when economic conditions worsen; and
- Using funding relief measures enacted by government.

Funding policy can also be used in tandem with investment policy – for example, a number of large corporations in Canada have chosen to make contributions above their minimum requirements, and reduced the mismatch risk at the same time.

BCE Inc., for instance, announced in December, 2012 that it was planning to make a voluntary $750 million contribution into its DB plan, using its cash balance at year end. The top-up payment was to result in a $200 million tax decuction in 2013.

“Accelerating the funding of Bell’s future pension obligation is an efficient use of our cash given the backdrop of a persistently low interest rate environment,” Siim Vanaselja, Chief Financial Officer of BCE and Bell Canada, said in a Dec. 11, 2012 statement. “With this contribution, which preserves the pension plan’s funded status at a high level, we expect Bell’s normal pension funding and cash income taxes for 2013 to be maintained at a similar level to 2012. This action both derisks the pension plan and improves Bell’s longer term financial flexibility to enhance returns to our shareholders through reduced future pension funding requirements and expense.”

A relatively recent addition to the funding policy toolkit are letters of credit. Many jurisdictions now permit plan sponsors to take out an irrevocable letter of credit in lieu of making solvency special payments. Some plan sponsors believe that the deficit payments they are required to make now to fund current solvency deficits will result in unrecoverable surpluses when interest rates eventually increase – and many believe that interest rates will rise in the next few years. Credit-worthy sponsors who have this view should consider letters of credit as an effective short-term tactical strategy to cope with the current low interest rate environment.

CONCLUSION

The last decade has made it abundantly clear that traditional DB plans expose their plan sponsors to a significantly higher level of risk than was previously understood. In the height of the tech bubble in early 2000, few would have predicted that DB pension plans would be in the position they are today.

Many employers, particularly in the private sector, are uncomfortable with the level of risk they face, and would like to reduce their exposure. Employers want to move from an underfunded plan with significant risk exposure to a fully funded plan with much lower risk. Unfortunately, when plans are deeply underfunded, no derisking strategy is both painless to implement and quick to produce results. This does not mean, however, that plan sponsors should consider this to be a hopeless mission. For many sponsors, this will be a long journey – but the destination will never be reached unless a strategy is mapped out in advance and the first step is taken.

An effective derisking strategy will involve benefit policy, investment policy and funding policy changes, and possibly ultimately lead to a series of risk transfers. Regardless of how far along plan sponsors are on the derisking path, it's never too late to stop and take some time to map out a comprehensive strategy – or a derisking journey plan – to get to the desired endpoint.

"The overwhelming majority of Canadian pension plans are still faced with significant solvency deficits. To many plan sponsors, the pension plan feels like a tightening noose. With seemingly insurmountable problems, some have been tempted to stick with the status quo in the hope of better times. Some, however, are beginning to see the merit in a long-term strategy to gradually loosen the noose. While pension volatility exposes sponsors to risk, it also provides opportunities to take steps to reduce this risk. The opportunities are often fleeting, and sponsors who are regularly measuring the funded status of their plans, and have developed a derisking game plan in advance may be in the best position to capitalize."

Manuel Monteiro – Partner, Mercer's Financial Strategy Group

For example, a derisking strategy could involve:

- Retaining past service DB benefits for retirees and active employees, while moving to a target benefit plan or DC plan for future service;
- Retaining the current asset mix for the legacy DB liabilities until long term interest rates rise above a threshold level;
- Using letters of credit in lieu of making solvency special payments while interest rates remain below a threshold level;
- Once interest rates have reached some threshold level, introducing a dynamic derisking strategy to shift from equities into bonds as the funded status improves; and
- Performing annual reviews of annuity market conditions to determine whether a settlement of pensioner liabilities makes sense.

It is recomended that all DB plan sponsors who feel they have too much risk to start down this path.

"As with all plans there are only so many levers one can work with:
- Asset mix
- Fund returns
- Member contribution rates
- Sponsor contribution rates
- Changes in plan design
These are the variables that sponsors and plan boards must consider, especially in a low-rate return environment. The days of increasing benefits to members are behind us; to the point that many plans must take corrective action to remain solvent."

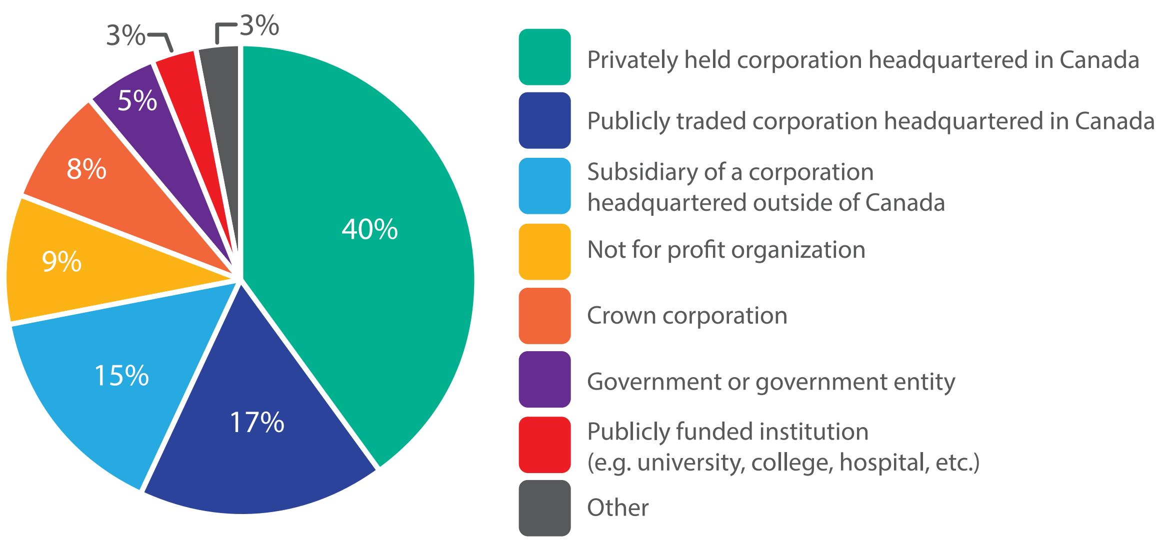
Norm Ferguson – Managing Director, Ogilvie LLP and Chair, Pensions Task Force, Issues and Policy Advisory Committee, FEI Canada

"There is no silver bullet to solving the current DB pension dilemma. There are only limited ways you solve this problem that we're all in. One is that you generate super returns. I'm not sure that this is going to happen anytime soon. Second and in my opinion the most likely is rising interest rates. Again, I am not sure this is imminently on the horizon but I would say it has a better probability than the former. Third more money in the plan or fourthly amend your plans. There are no other solutions to this issue. And so derisking is the right way to go. Derisking can take on many forms. We made the decision to derisk early on i.e. end of 2008 early 2009 and took advantage of the dislocation that existed in the fixed income markets. Specifically, we were buying corporate and provincial bonds. Our timing was good and we derisked very rapidly in a very short period of time. At the end of 2008, this issue hit the boardrooms of corporations like a ton of bricks. And they wanted to react to it very quickly. So in 2008, boom, let's go. We took a 60/40 equity-fixed income asset mix position and flipped it into a 40/60. So I was glad to hear that that we're one of 10% of pension funds that has 40% or lower in equity. I think it's also important to differentiate on the quality of your return. What I mean is that if you had 10% return but 85% of your return is being generated by fixed income; the reality is that return really wasn't all that great. End result is your liabilities have increased, and likely more so than the return on your fixed income assets."

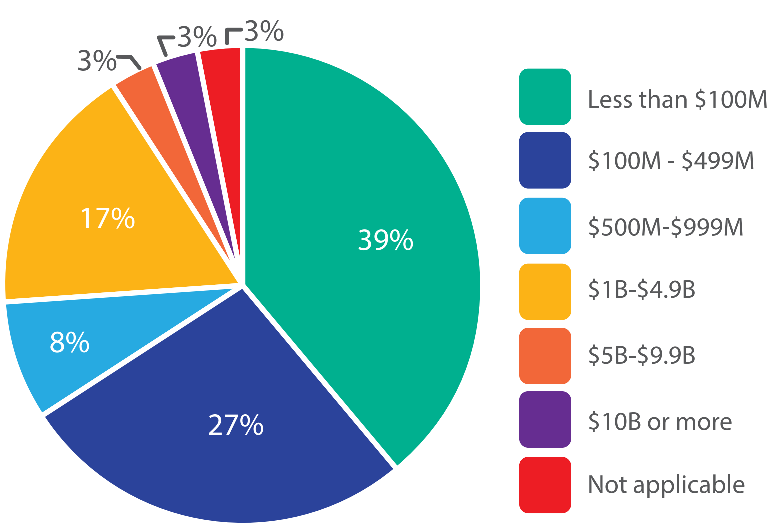
Michael Boychuk – President, Bimcor

APPENDIX A: DEMOGRAPHICS

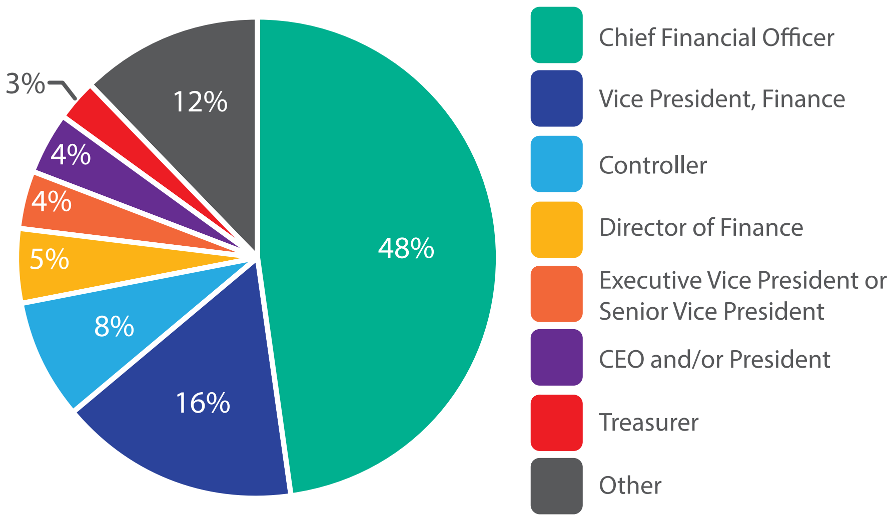
COMPANY STRUCTURE



ANNUAL REVENUE



POSITION TITLE



APPENDIX B: FORUM PARTICIPANTS

Forum Chair:	Michael Conway – Chief Executive and National President, FEI Canada
Moderators:	Christian Bellavance – VP, Research & Communications, FEI Canada Manuel Monteiro – Partner, Mercer (Canada) Ltd.
Toronto Participants:	Michael Baril – Director, Market Research, Vale Canada Limited Nigel Byars – EVP, Canadian Institute of Chartered Accountants Kent Carson – SVP & CFO, Holcim Canada Jayne Connolly – Pension Director and Chief Accountant, IBM Canada Peter Effer – VP Taxation, Shoppers Drug Mart Tony Hooper – VP, Finance and Administration, Unilock Group of Companies Narin Kishinchandani – VP Finance, Enbridge Gas Distribution Inc. Paul Stinis – Senior Vice President & Treasurer, BCE
Montreal Participants:	Michael Boychuk – President, Bimcor Heather Cooke – Partner, Mercer (Canada) Ltd. Susan Kudzman – Partner, Mercer (Canada) Ltd. Vincent Morin – Principal Actuarial Advisor-Canada, Rio Tinto Alcan Inc. Richard Neault – VP, Pension Asset Management, Bombardier Michel St-Germain – Partner, Mercer (Canada) Ltd. Charles Tortorici – Manager, Financial Reporting, CN John Weerdenburg – VP and CFO, Ottawa International Airport Authority
Edmonton Participant:	Norm P. Ferguson – Managing Director and CFO, Ogilvie LLP
Observers:	Nancy Altilia – Principal, Region Marketing Leader, Canada and Latin America, Mercer (Canada) Ltd. Laura Bobak – Senior Writer, FEI Canada Melissa Gibson – Communications and Research Manager, FEI Canada

THE CANADIAN FINANCIAL EXECUTIVES RESEARCH FOUNDATION (CFERF) is the non-profit research institute of FEI Canada. The foundation's mandate is to advance the profession and practices of financial management through research. CFERF undertakes objective research projects relevant to the needs of FEI Canada's 1,800 members in working toward the advancement of corporate efficiency in Canada. Further information can be found at www.feicanada.org

FINANCIAL EXECUTIVES INTERNATIONAL CANADA (FEI CANADA) is the all industry professional membership association for senior financial executives. With eleven chapters across Canada and 1,800 members, FEI Canada provides professional development, thought leadership and advocacy services to its members. The association membership, which consists of Chief Financial Officers, Audit Committee Directors and senior executives in the Finance, Controller, Treasury and Taxation functions, represents a significant number of Canada's leading and most influential corporations. Further information can be found at www.feicanada.org

MERCER is a global consulting leader in talent, health, retirement and investments. Mercer helps clients around the world advance the health, wealth and performance of their most vital asset – their people. Mercer's 20,000 employees are based in more than 40 countries. Mercer is a wholly owned subsidiary of Marsh & McLennan Companies. Mercer's global Financial Strategy Group (FSG) specializes in delivering strategic financial consulting advice to pension plan sponsors, fiduciaries and managers. The FSG helps clients achieve their unique risk management objectives, by delivering advice on pensions risk assessment, management and reduction, and integrates the pension solution within the client's overall financial strategy. The FSG team brings together strong capital markets expertise with traditional actuarial and investment consulting to provide the integrated approach to pension cost and risk management. This allows the advice to encompass holistic solutions, taking into account financial goals, risk appetite, investment strategy, funding, benefits and accounting. www.mercer.ca

CORPORATE DONORS:

GOLD ($10,000 +):
Husky Energy Inc.
Bell Canada

SILVER ($5,000-10,000):
Agrium Inc.
CGI Group Inc.
Imperial Oil Ltd.

BRONZE ($1,000-5,000):
Canadian Western Bank Group
Open Text Corporation
PotashCorp

FEI CANADA'S RESEARCH TEAM:

Michael Conway – Chief Executive & National President

Christian Bellavance – Vice President, Research & Communications

Laura Bobak – Senior Writer

Melissa Gibson – Communications & Research Manager

170 University Avenue, Suite 1201
Toronto, ON M5H 3B3
T 416.366.3007
F 416.336.3008
www.feicanada.org

cferf

canadian financial executives
research foundation
fondation de recherche des dirigeants financiers du canada