New insights on workplace mental health

Workplace mental health is clearly a growing concern for Canadian employers. The significant cost of disability related to mental health issues has been apparent for a while. Employers are now realizing that employee productivity, engagement and attendance is strongly impacted by the mental health and wellness of employees and the workplace. Negative stress and impact of that stress is one indicator of mental wellness. A Morneau Shepell survey conducted late last year brings new insights on this issue.
• Eight in ten (82%) employees with mental health issues indicated that it impacts their work; 67% of those with significant stress issues reported the same. This compares to 53% of those with physical health issues.

• One in four employees with high workplace or personal stress reported taking a mental health related absence in the previous two years, compared to 6% and 8% of those with low work and personal stress respectively.

• Work stress and lack of engagement are correlated, with 47% of those reporting high work stress being disengaged.

A challenge for employers in dealing with stress and mental health issues, is determining the connection and differences between them, and the risk factors for each, in a way that leads to practical action.

**What makes someone more or less likely to have a mental health condition?**

One of the factors that makes mental health such a complex issue is that mental illnesses are a diverse group of conditions. Even a single diagnosis such as depression has many different causes, can present itself in different ways for different individuals, and different individuals respond differently to different treatments.

Part of the issues is that there are several different risk factors. Among them are:

1. Genetics: Mental illnesses have a greater genetic valence than most other conditions.

2. Biology: There is a significant biological component to mental illness, including everything from a response to pre-natal brain trauma to the chemical environment and anatomical structure of the brain.

3. Repeated exposure to toxins: The biological nature of the brain can be impacted by chronic substance abuse.

4. Traumatic or prolonged stress: While extreme stress is a clear risk factor, the threshold where stress triggers illness varies for each individual based on the genetic/biological predisposition and the absence or presence of protective factors.

5. Social support: The perception of being important and cared for as well as actual support and assistance from others is a strong protective factor from the negative impact of stress. The converse is that lack of close supportive personal relationship or isolation is a clear risk factor for mental illness.

6. Coping skills: Given that stress is based on a perception of risk that feels overwhelming, the more one feels and is capable of managing personal and situational challenges, the less one is likely to feel overwhelmed.

**How are stress and mental health different?**

Stress is a response:

- It is created by a trigger.
- Is influenced by the person's perceptions.
- The intensity can vary based on the individual's personal resilience.
- The defining feature of stress is feeling overwhelmed, which can impact both thinking and behaviour.
- This impact reduces when the stress trigger goes away or a coping mechanism is found.

Mental illness is an illness:

- Mental illness represents a diverse group of health conditions.

| Resilience is the ability to respond productively in the face of stressors. |
| Resilience is not static: it can change and can be shaped. |
| Resilience = coping skills + social support + personal risk threshold |

Mental illness is an illness:
• Each is heterogeneous in its cause, presentation, symptoms and recovery.
• Each has physical, emotional, cognitive and social components.
• There may have been a trigger that is stress-related, but the symptoms become largely independent of the situation.
• Typically, medication is required in addition to counselling.
• Given its complex nature, less than 40% of patients with major depression respond well to initial medication.

Stress and mental health do, however, have a strong relationship:
• Stress matters a lot for both illness risk and workplace functioning.
• Varying levels of stress can trigger mental illness based on the person’s predisposition.
• Traumatic stress can create psychological injury and a resulting mental illness.
• Up to 50% of people with a reactive stress disorder ultimately develop more serious mental health issues.
• Chronic stress can cause changes to brain structure and function, increasing propensity of mental illness, and decreasing responsiveness to treatment.

Both stress and mental illness impact both types of cognition:
• rational decisions (“cold” cognition);
• interpersonal functioning (“hot” cognition).

Both stress and mental illness create work performance and interpersonal disruption.

What can be done in the workplace?

1. Recognize and manage workplace risk
   Traumatic, prolonged and repeated extreme stress is a risk factor for mental illness, may impact individuals in varying degrees, and should be addressed as a risk.

2. Invest in and develop mitigation for employees
   Some of the impact relates to biological factors. However, the workplace can support protective factors with coping skills/resilience building, social support, and fact-based anti-stigma communications.

3. Consider implementing current and emerging strategies to support treatment
   The evolution of care for mental illness will impact both disability management and benefit plans.

   There is growing awareness on the part of employers regarding the need to take action in order to reduce the impact of mental health issues on employee engagement, productivity and absenteeism. The insights revealed by our latest survey show how substantial the current problems can be and how rewarding it can be to implement appropriate action plans.

Ontario government releases more ORPP details

On January 26, 2016, the Ontario government released further design details of the Ontario Retirement Pension Plan (ORPP). The announcement includes details on benefit levels, indexation and death benefits. It also covers administrative rules that will affect employers, such as the definition of employment in Ontario, the definition of earnings, and waiting periods before employees join a comparable pension plan. Finally, it includes some details on funding and governance mechanisms.

Benefit design

Benefit levels
The ORPP is designed to provide plan members a 15% income replacement rate after they contribute
to the plan over 40 years; this represents a pension formula of 0.375% of earnings per year of service. When plan members retire, their pension benefit would be calculated using their average earnings over the years they contributed to the plan. The ORPP would begin paying benefits in 2022.

Pre-retirement indexation
Benefits would be indexed before retirement according to the average growth of wages and salaries as outlined by Statistics Canada. This means the benefits that a plan member has earned in the past will be given present-day value upon retirement. This represents an indexed-career-average earnings design, like the Canada Pension Plan (CPP), which is almost the same as a final-average-earnings design that is typical for employer-sponsored pension plans.

Post-retirement indexation
Benefits paid over the course of a plan member’s retirement would be indexed according to the Consumer Price Index (CPI) to account for inflation, as is the case for the CPP. Note however that it is not known whether this would reflect the new index for seniors proposed by the new federal government.

Pre-retirement death
If a plan member dies before retirement, a lump sum based on the actuarial equivalent value of the member’s pension will be paid to an eligible spouse. If there is no eligible spouse, the lump sum will be paid to the member’s beneficiary or the estate. This is similar to the death benefit payable from an employer-sponsored pension plan. The CPP does not pay a similar benefit.

Post-retirement death benefits
When a member with a spouse retires, the member’s spouse is to receive a survivor benefit for life equal to 60% of the member’s adjusted pension.

The plan member may choose to waive the survivor benefit and receive their full retirement pension with a 10-year guarantee period. If the member dies within that guarantee period, the remaining value of the guaranteed pension payments is to be paid to the spouse, if there is a spouse at the time of retirement and death.

A plan member with no spouse at the time of retirement is entitled to their full pension with a 10-year guarantee period. If the member dies within that guarantee period, the remaining value of the guaranteed pension payments is paid to the beneficiary or estate.

Administrative issues
Definition of employment in Ontario
Employers would be required to pay contributions on behalf of workers employed in Ontario and also collect and remit contributions from those workers. A person would be considered employed in Ontario if they report to work at an employer’s establishment in Ontario. This also applies to a worker whose salary or hourly wages are paid from an Ontario-based employer, but who is not required to work at an employer’s place of business. This rule is similar to those applicable to employer-sponsored pension plans.

It is not clear at this time whether this definition is intended to include employees in a sector that falls under the federal jurisdiction, but this may depend on whether the federal government agrees to amend legislation to permit their inclusion.

The ORPP would include non-resident workers who earn above the minimum earnings threshold of $3,500 and have income that is taxable for the purposes of Canadian and Ontario income tax.

Pensionable earnings
Pensionable earnings would include both cash and non-cash earnings, including amounts beyond base salary such as bonuses and commissions. The range of covered earnings is still intended to be between $3,500 and $90,000, with the ceiling to be indexed.

Comparability test
The comparability test to allow opting-out will apply at the level of a subset of employees. This approach would streamline the administrative process of assessing plan comparability. A subset must be clearly identifiable in the employer’s registered pension plan or collective bargaining agreement in order to be recognized.
For employers that participate in a multi-employer pension plan (MEPP), the ORPP would apply the comparability test to the employer’s collective bargaining or employee agreements at the subset level. Due to the unique nature of MEPPs and the ways they calculate their benefit, employers would have the option to be evaluated using the defined benefit or defined contribution threshold.

Waiting periods

If certain workers are employed in a workplace with a comparable plan but are not members of that plan because it has a waiting period, they would also be required to be members of the ORPP until the waiting period has ended.

Opt-in

Employers that have comparable workplace pension plans would be able to opt-in to the ORPP in wave four of the ORPP enrolment schedule or at any time thereafter.

Contributions during leaves of absence and workplace injury or illness

Employment standards and workplace compensation legislation provide for a number of different types of leaves of absence during which employees are entitled to pension coverage, provided that they make the required employee contributions.

These leaves include pregnancy, parental, family medical, organ donor, family caregiver, critically ill child care, crime-related child death or disappearance, declared emergency and personal emergency leave. Pension coverage is also required to be offered during the first year of an employee’s leave due to workplace injury or illness.

ORPP members on employment standards or workplace compensation leaves would be able to elect to continue making contributions into the ORPP during their leave as follows:

- A member’s contributions would be based on their earnings prior to the leave.

Members would only be permitted to opt-in to the ORPP during leaves that are protected under the ESA and WSIA.

ORPP funding rules

The government states that it has designed ORPP benefits to be sustainable over the next 100 years. A funding policy has been established that requires appropriate adjustments to be made in the event that the plan becomes underfunded.

The ORPP’s funded status would be measured by the difference between the current contribution rate and the sustainability rate at the time of review, where the sustainability rate is the lowest contribution rate required to keep funding sustainable in the long-term. If this number is zero, plan assets are sufficient to cover expenditures into the future. If the number is greater than zero, plan funding is in excess. If the number is less than zero, plan funding is in shortfall.

In the event of a funding shortfall, the ORPP Administration Corporation (AC) board of directors will operate within a prescribed set of actions, including reversing any previous actions taken during a funding excess and reducing benefit indexation up to a certain limit. If the shortfall has not been remedied by these actions, the AC may increase contribution rates by up to 0.2%. The actions will be certified by the Chief Actuary (a newly created position for Ontario). In the event of a more significant funding shortfall, the AC will work with the Chief Actuary to make recommendations to the government on which actions are needed to return funding to sustainability.

In the event that a fundamental change is proposed to the nature of the ORPP that would impact plan members’ benefits substantially and that is not a direct result of funding policy adjustments, the consent of at least 60% of ORPP members would be required in order to implement such a change. This would ensure that ORPP members have the opportunity to review and approve future changes to the plan that would have a significant impact on their ORPP benefits.
Federal government joins pan-Canadian Pharmaceutical Alliance

The federal government has announced that it will join the provinces and territories already participating in the pan-Canadian Pharmaceutical Alliance (pCPA), which facilitates joint negotiation of prescription drug prices. Started in 2010, the pCPA has completed more than 89 negotiations on brand name drugs and price reductions on 14 generics, producing savings of more than $490 million annually through economies of scale.

Those covered under federal drug plans include the military and veterans, RCMP members, First Nations and Inuit populations, federal inmates and refugees. In a statement, federal health minister Jane Philpott highlighted greater savings for all publicly-funded drug programs, increased access to drug treatment options and consistency in pricing across Canada as benefits of the federal government’s inclusion in the alliance. Provincial health ministers supported the participation of the federal government, expecting the change to increase purchasing power.

According to data from the Canadian Institute for Health Information, spending on prescription drugs was forecasted to total $29.2 billion in 2015.

Of this, $12.6 billion was paid for by public plans. The remaining $16.6 billion represents private payers, of which approximately 60% is paid by private health insurance (such as employer-sponsored group benefit plans) and 40% is comprised of out-of-pocket payments by individuals.

Soon after the announcement, the Canadian Life and Health Insurance Association (CLHIA) suggested that the bulk purchasing arrangement should be extended to private insurance companies, as not doing so would result in two-tier drug pricing: a lower cost for government plans, and a higher price for insurers. Private insurers reimburse through employer-sponsored group benefit programs the majority of prescription drug costs not paid by government programs. While some insurers have negotiated preferred pricing, allowable markup, and pharmacy fees with drug manufacturers or pharmacies for their clients, the alliance of government plans has a higher potential for negotiating successfully. To date, there has been no indication that insurers will be included in the pCPA.

Expanding the pCPA to include the insurance industry would still leave Canadians with two-tier drug pricing, as there would be no change to the pricing for individuals not covered by government or employer-sponsored plans. Already, these individuals often pay the highest drug prices and associated fees because they are unable to access preferred pricing arrangements negotiated by government plans and/or insurance companies.

There has been increased media attention about the fact that Canada is the only developed country with universal healthcare that does not also offer universal prescription drug coverage. Canadian prescription drug costs are higher than that of most other developed nations. The federal government has said that it is reviewing other ways of reducing prescription drug costs as well. A working group will be formed by provincial and territorial health ministers to discuss a national pharmaceutical strategy. Universal drug coverage could remove the current differences between coverage provided to individuals in different provinces who have access

Conclusion

The newly released design details will help employers as they consider the potential impact of the ORPP. The ORPP plan design has some similarities with the Canada Pension Plan and some with employer-sponsored pension plans.

The announcement further confirms the Ontario government’s intentions to move ahead with the ORPP, despite ongoing discussions between the federal and provincial governments on Canada Pension Plan expansion.
to government or employer plans, but would also entail a significant change in how prescription drug claims are paid.

This issue will no doubt continue to evolve over time. Employers should work with their advisor and insurer to continually review their plan’s coverage for prescription drugs. Many tools are available to optimize coverage provided to plan members while furthering the sustainability of the plan.

**Removal of controversial new union reporting under Bill C-377**

The new Liberal federal government has announced its intention to repeal controversial rules stemming from Bill C-377, *An Act to Amend the Income Tax Act*, which was intended to increase transparency and accountability of labour unions by amending the *Income Tax Act* to require unions to disclose certain financial information (see News & Views, July 2015). It was anticipated that the Bill would be challenged in court, with opponents of the Bill claiming it is anti-union and unconstitutional in that it infringes on the provincial regulation of labour, as well as raising privacy issues.

The government announced on December 21, 2015, that, in anticipation of the repeal, it is waiving reporting requirements for unions and other stakeholders affected by the Bill. “Waiving Bill C-377 reporting requirements delivers on our government’s commitment to restore a fair and balanced approach to organized labour, freeing them from additional administrative tasks, and providing confidence in the future while the necessary steps are taken to repeal the Bill”, stated the Hon. Diane Lebouthillier, Minister of National Revenue.

This means that unions and stakeholders will not be required to develop and submit detailed tracking of their activities to the Canada Revenue Agency for fiscal years beginning on or after December 31, 2015.

**Ontario: draft regulations on MEPP asset transfers**

On February 2, 2016, the Ontario Ministry of Finance released draft regulations to facilitate asset transfers between multi-employer pension plans (“MEPPs”). Asset transfers between MEPPs are currently prohibited. The amendments would allow the existing rules that apply to single employer pension plans to apply also to MEPPs.

By merging, some smaller MEPPs may benefit from the economies of scale that a larger plan may have, such as access to a larger pool of assets for investment purposes and the potential for reduced administrative costs.

Comments on the draft regulations are due by March 21, 2016.
Market indices as at January 31, 2016

The following table shows the Morneau Shepell monthly summary of returns from various market indices. It also includes returns from benchmark portfolios used by pension funds.

<table>
<thead>
<tr>
<th>Returns</th>
<th>Monthly</th>
<th>Quarter to date</th>
<th>Year to date</th>
<th>1 year</th>
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</thead>
<tbody>
<tr>
<td><strong>FTSE TMX Bond Indices</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>FTSE TMX Canada Universe Bond</td>
<td>0.4%</td>
<td>0.4%</td>
<td>0.4%</td>
<td>-0.7%</td>
</tr>
<tr>
<td>FTSE TMX Canada 91 Day Treasury Bill</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.5%</td>
</tr>
<tr>
<td>FTSE TMX Canada Short Term Bond</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.9%</td>
</tr>
<tr>
<td>FTSE TMX Canada Mid Term Bond</td>
<td>0.6%</td>
<td>0.6%</td>
<td>0.6%</td>
<td>0.7%</td>
</tr>
<tr>
<td>FTSE TMX Canada Long Term Bond</td>
<td>0.5%</td>
<td>0.5%</td>
<td>0.5%</td>
<td>-3.6%</td>
</tr>
<tr>
<td>FTSE TMX Canada High Yield Bond</td>
<td>-2.0%</td>
<td>-2.0%</td>
<td>-2.0%</td>
<td>-5.8%</td>
</tr>
<tr>
<td>FTSE TMX Canada Real Return Bond</td>
<td>-0.3%</td>
<td>-0.3%</td>
<td>-0.3%</td>
<td>-6.0%</td>
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<tr>
<td><strong>Canadian Equity Indices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S&amp;P/TSX Composite (Total Return)</td>
<td>-1.2%</td>
<td>-1.2%</td>
<td>-1.2%</td>
<td>-9.9%</td>
</tr>
<tr>
<td>S&amp;P/TSX Composite Capped</td>
<td>-1.2%</td>
<td>-1.2%</td>
<td>-1.2%</td>
<td>-9.9%</td>
</tr>
<tr>
<td>S&amp;P/TSX 60 (Total Return)</td>
<td>-1.0%</td>
<td>-1.0%</td>
<td>-1.0%</td>
<td>-9.2%</td>
</tr>
<tr>
<td>S&amp;P/TSX Completion</td>
<td>-1.8%</td>
<td>-1.8%</td>
<td>-1.8%</td>
<td>-12.0%</td>
</tr>
<tr>
<td>S&amp;P/TSX Small Cap</td>
<td>-4.1%</td>
<td>-4.1%</td>
<td>-4.1%</td>
<td>-17.3%</td>
</tr>
<tr>
<td>BMO Small Cap Unweighted</td>
<td>-4.5%</td>
<td>-4.5%</td>
<td>-4.5%</td>
<td>-20.6%</td>
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<tr>
<td>BMO Small Cap Weighted</td>
<td>-4.0%</td>
<td>-4.0%</td>
<td>-4.0%</td>
<td>-17.2%</td>
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<tr>
<td><strong>U.S. Equity Indices</strong></td>
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</tr>
<tr>
<td>S&amp;P 500 (US$)</td>
<td>-5.0%</td>
<td>-5.0%</td>
<td>-5.0%</td>
<td>-0.7%</td>
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<tr>
<td>S&amp;P 500 (C$)</td>
<td>-3.8%</td>
<td>-3.8%</td>
<td>-3.8%</td>
<td>9.5%</td>
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<tr>
<td><strong>Foreign Equity Indices</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>MSCI ACWI (C$)</td>
<td>-4.8%</td>
<td>-4.8%</td>
<td>-4.8%</td>
<td>3.4%</td>
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<tr>
<td>MSCI World (C$)</td>
<td>-4.8%</td>
<td>-4.8%</td>
<td>-4.8%</td>
<td>5.3%</td>
</tr>
<tr>
<td>MSCI EAFE (C$)</td>
<td>-6.0%</td>
<td>-6.0%</td>
<td>-6.0%</td>
<td>1.6%</td>
</tr>
<tr>
<td>MSCI Europe (C$)</td>
<td>-5.4%</td>
<td>-5.4%</td>
<td>-5.4%</td>
<td>0.7%</td>
</tr>
<tr>
<td>MSCI Pacific (C$)</td>
<td>-7.2%</td>
<td>-7.2%</td>
<td>-7.2%</td>
<td>3.1%</td>
</tr>
<tr>
<td>MSCI Emerging Markets (C$)</td>
<td>-5.3%</td>
<td>-5.3%</td>
<td>-5.3%</td>
<td>-11.9%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer Price Index (Canada. December 2015)</td>
<td>-0.5%</td>
<td>-0.5%</td>
<td>1.6%</td>
<td>1.6%</td>
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<tr>
<td>Exchange Rate US$/C$</td>
<td>1.2%</td>
<td>1.2%</td>
<td>1.2%</td>
<td>10.2%</td>
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<tr>
<td><strong>Morneau Shepell Benchmark Portfolios</strong></td>
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<td></td>
<td></td>
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<tr>
<td>60% Equity/40% Bonds</td>
<td>-1.6%</td>
<td>-1.6%</td>
<td>-1.6%</td>
<td>-2.7%</td>
</tr>
<tr>
<td>55% Equity/45% Bonds</td>
<td>-1.5%</td>
<td>-1.5%</td>
<td>-1.5%</td>
<td>-2.6%</td>
</tr>
<tr>
<td>50% Equity/50% Bonds</td>
<td>-1.3%</td>
<td>-1.3%</td>
<td>-1.3%</td>
<td>-2.6%</td>
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<tr>
<td>45% Equity/55% Bonds</td>
<td>-1.1%</td>
<td>-1.1%</td>
<td>-1.1%</td>
<td>-2.5%</td>
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<tr>
<td>40% Equity/60% Bonds</td>
<td>-0.9%</td>
<td>-0.9%</td>
<td>-0.9%</td>
<td>-2.5%</td>
</tr>
</tbody>
</table>

Notes:
2. The returns are compounded monthly.

Asset & Risk Management

**Asset Management**
We provide objective advice on all aspects of asset management for pension funds, including investment policy statements, portfolio manager searches, investment performance measurement and investment strategy.

**Risk Management**
We provide a structured, comprehensive approach to pension risk management, including implementation of liability-driven investment strategies, advice on allocation of the risk budget within an asset-liability framework and execution of continuous and dynamic processes for risk reduction.

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Fax: 416.445.1858
E-mail: rboston@morneaushepell.com

Notes:
2. The returns are compounded monthly.
Tracking the funded status of pension plans as at January 31, 2016

This graph shows the changes in the financial position of a typical defined benefit plan with an average rate duration since December 31, 2015. For this illustration, assets and liabilities of the plan were each arbitrarily set at $100 million as at December 31, 2015. The estimate of the solvency liabilities reflects the new CIA guidance published in January 2016 for valuations effective December 31, 2015 or later.

The following graph shows the impact of three distinct portfolios on plan assets and the effect of interest rate changes on solvency liabilities of medium duration. It is important to note that in previous publications, we only displayed the 60/40 portfolio and displayed three liability profiles of short, medium and long duration.

The evolution of the financial situation of pension plans since December 31, 2015

During the month of January, Canadian universe bonds and Canadian long term bonds showed positive returns, while the Canadian equity market, Global equity markets (CAD), Canadian long-term provincial bonds and alternative investments showed negative returns.

The table below shows the impact of past returns on plan assets as well as the effect of interest rate changes on solvency liabilities, based on the plan’s initial solvency ratio as at December 31, 2015.

<table>
<thead>
<tr>
<th>Initial solvency ratio as at December 31, 2015</th>
<th>Evolution of the solvency ratio as at January 31, 2016 for three different portfolios</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60/40 portfolio</td>
</tr>
<tr>
<td>100%</td>
<td>95.8%</td>
</tr>
<tr>
<td>90%</td>
<td>86.2%</td>
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<tr>
<td>80%</td>
<td>76.6%</td>
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<tr>
<td>70%</td>
<td>67.1%</td>
</tr>
<tr>
<td>60%</td>
<td>57.5%</td>
</tr>
</tbody>
</table>

With a return of -1.4%, the low volatility portfolio (LDI) outperformed the 60/40 portfolio (-1.6%) and the highly diversified portfolio (-1.7%). The surrender of the low volatility portfolio is explained by a larger weight in bonds and the absence of alternative investments in the portfolio. Annuity purchase rates and the rates used in the calculation of solvency liabilities decreased during the month, increasing the solvency liabilities by 2.7% for the medium duration plan. In all cases, the combined effect decreased the solvency ratio.

Please contact your Morneau Shepell consultant for a customized analysis of your pension plan.

Comments
1. No consideration has been made for contributions paid to the plan or for benefits paid out of the plan.
2. Solvency liabilities are projected using the rates prescribed by the Canadian Institute of Actuaries (CIA) for the purpose of determining pension commuted values.
3. This estimate of solvency reflects the new CIA guidance published in January 2016.
4. The underlying typical defined benefit plan is a final average plan with no pension indexing, including active and inactive participants representing 60% and 40% of liabilities, respectively.
5. Assets are shown at full market value. Returns on assets are based on three typical benchmark portfolios.
Impact on pension expense under international accounting as at January 31, 2016

Every year, companies must establish an expense for their defined benefit pension plans.

The graph shows the expense impact for a typical pension plan that starts the year at an arbitrary value of 100 (expense index). The expense is influenced by changes in the discount rate based on high quality corporate and provincial (adjusted) bonds and the median return of pension fund assets.

Expenses Index from December 31, 2015

<table>
<thead>
<tr>
<th></th>
<th>31-12</th>
<th>31-01</th>
<th>31-03</th>
<th>30-06</th>
<th>30-09</th>
<th>31-12</th>
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<tr>
<td>Non-contributory plan</td>
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<tr>
<td>Contributory plan</td>
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</tr>
<tr>
<td>Discount rate (%)</td>
<td>4.0</td>
<td>4.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on assets (60% equities) (%)</td>
<td>0.0</td>
<td>-1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table below shows the discount rates for varying durations and the change since the beginning of the year. A plan’s duration generally varies between 10 (mature plan) and 20 (young plan).

Discount rate

<table>
<thead>
<tr>
<th>Duration</th>
<th>December 2015</th>
<th>January 2016</th>
<th>Change in 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>3.71%</td>
<td>3.75%</td>
<td>4 bps</td>
</tr>
<tr>
<td>14</td>
<td>3.91%</td>
<td>3.93%</td>
<td>2 bps</td>
</tr>
<tr>
<td>17</td>
<td>4.04%</td>
<td>4.05%</td>
<td>1 bps</td>
</tr>
<tr>
<td>20</td>
<td>4.12%</td>
<td>4.13%</td>
<td>1 bps</td>
</tr>
</tbody>
</table>

Since the beginning of the year, the pension expense has increased by 2% (for a contributory plan) due to the poor returns on plan assets (relative to the discount rate).

Comments

1. The expense is established as at December 31, 2015, based on the average financial position of the pension plans used in our 2015 Survey of Economic Assumptions in Accounting for Pensions and Other Post-Retirement Benefits report (i.e. a ratio of assets to obligation value of 91% as at December 31, 2014).

2. The return on assets corresponds to the return on the Morneau Shepell benchmark portfolio (60% equities and 40% fixed income).

3. The actuarial obligation is that of a final average earnings plan, without indexing (two scenarios: with and without employee contributions).

Please contact your Morneau Shepell consultant for a customized analysis of your pension plan.
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