

RISK-BASED FUNDING OF NEGOTIATED-COST PENSION PLANS

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Issue

Current pension legislation requires that every pension plan be prepared to terminate at any moment. This means that many pension plans are required to set aside a portion of the employer contribution to fund the extra costs incurred for a plan termination that no one expects to happen. Because many pension plans are in industries that can reasonably be expected to continue long into the future, these extra contributions serve no purpose except to reduce the value of the negotiated wage and benefit package. To the extent that members have wage and benefit expectations, these contributions only add to the cost pressures in the wage and benefit package.

Pension plans that are at risk need protection, and benefit from the current rules; but plans that are not at risk do not, and should not be required to set aside such contributions. A better approach is to establish funding requirements that reflect the specific risks of each plan.

Background

A Negotiated-Cost Pension Plan (NCPP) is a pension plan in which the employers contribute to a pension fund at a rate established under a collective agreement, and the trustees of the pension plan, based on the advice of the actuary, determine the benefit rate that can be supported by the negotiated contributions.

Until the mid-80s, it was sufficient for the actuary of an NCPP to determine the benefit level on the assumption that the pension plan would continue indefinitely – referred to as a going-concern valuation. Because of concerns about corporate bankruptcies that resulted in employees losing their pensions as well as their jobs, the legislators in most Canadian jurisdictions established a second set of calculations in the 1980s and 1990s, referred to as a solvency valuation.

The solvency valuation is intended to eliminate or reduce the problems caused when pension plans terminate – primarily a problem for single-employer pension plans. In the solvency valuation, the plan position is determined as if the plan terminated on the valuation date and all of the obligations of the pension plan were immediately liquidated. Any hypothetical deficiencies determined by the solvency valuation must be amortized over five years, even though deficiencies found on the going concern valuation may be amortized over 15 years.

The solvency valuation is very conservative: because obligations to pensioners on plan termination must be satisfied through the purchase of annuities, in the solvency valuation the pensioner obligations on the assumed plan termination must be calculated at the current price of annuities, which are close to historic highs. The solvency valuation often reveals a deficiency on hypothetical plan termination, even when the going concern valuation may demonstrate that the plan is sustainable over the long term.

As a result of the solvency rules, NCPPs have to allocate a portion of their contributions to fund the hypothetical solvency deficiency; some NCPPs have had to reduce benefits, even pensions in payment, because the remainder of the contributions (after setting aside the contributions required to fund the solvency deficiency) are not sufficient to fund the plan's costs. For an NCPP in a sustainable industry these benefit reductions are unnecessary, create intergenerational inequities and impose undue hardship on the members.

Example

Consider the following situation:

- An NCPP covers the members of an essential trade in the construction industry, has been in operation for more than 50 years, and is expected to continue for as long as buildings are being built.
- The assets of the plan are determined by the actuary to be sufficient to meet the obligations of the plan on the assumption the plan continues indefinitely (going concern valuation).
- The negotiated contribution rate of the plan is \$4.00 per hour worked.
- The going concern cost of the plan to provide the benefit level established by the trustees is \$3.00 per hour.
- On hypothetical plan wind up, the plan has a solvency deficiency that requires contributions of \$2.50 per hour.

As a result of the solvency rules, the total cost of the plan would rise to \$5.50 (\$3.00 to fund the cost of the plan, plus \$2.50 to fund the solvency deficiency). If the contribution rate of \$4.00 had been negotiated in a collective agreement to be effective for several years following the valuation date (and therefore fixed), the Trustees would have no choice but to reduce benefits, even though by traditional actuarial measures the plan is well funded and not at risk.

A Solution – Risk-Based Solvency

The potential solvency problem of “at-risk” plans is not questioned; however, an alternative can be established for “not-at-risk” plans.

We recommend the development of a risk-based system so that high-risk plans continue to be required to correct their solvency problems under current solvency rules (five-year amortization of solvency deficiencies), but moderate-risk plans face less stringent rules and low-risk plans are not required to fund hypothetical solvency deficiencies.

The risk level could be established by developing a score according to risk factors, including:

1. Funding risk
 - plan’s financial position – going concern funded ratio or deficit
 - sufficiency of contributions to fund the current service cost (including operating expenses)
 - contribution leverage – a measure of the ability of the contributions to fund unfavourable plan experience
2. Industry risk
 - concentration of employees within a few employers within the industry
 - changes in employment levels, as measured by hours worked
3. Investment risk
 - investment in higher-risk investments such as equities and real estate

The solvency amortization period would then be based on the risk score. A high risk plan would need to meet the current requirement of five-year amortization; a low-risk plan would not need to amortize a solvency deficiency; moderately at-risk plans would need to fund solvency deficiencies between five and 25 years, depending on the risk score.

An example of risk factor scores is given in Appendix 1. The application of the risk factor scores to six plans is given in Appendix 2.

No changes would be required to the *B.C. Pension Benefits Standards Act* to implement a risk-based system. Section 35 of the *B.C. Pension Benefits Standards Regulations* would need to be amended.

Appendix 1

An Illustration of Risk Factor Scores

1. Funding Risks

Going Concern Funded Ratio	Score
<85%	20
85%-95%	15
95%-105%	10
105%-115%	5
115%-125%	0
>125%	-5

Contribution margin*	Score
<80%	10
80%-90%	8
90%-100%	5
100%-110%	3
>110%	0

*contribution rate (\$/hr.) as a % of current service cost (\$/hr.)

Contribution leverage**	Score
>40	10
30-40	8
20-30	5
10-20	3
<10	0

** ratio of liabilities over contributions

2. Industry/Participation Risks

Change in average hours (most recent three years over previous three years)	Score
<80%	10
80%-90%	8
90%-100%	5
>100%	0

Number of employers employing 75% of members***	Score
1	50
2-3	25
4-5	10
>5	0

*** counted from the largest employer to the smallest employer until 75% of members reached

3. Investment Risk

Investment in Equities and Real Estate	Score
>70%	10
60%-70%	5
<60%	0

A plan's risk score would be the total of the risk factor scores. The solvency amortization period would then be based on the risk score. Examples are given in Appendix 2.

Appendix 2

Application of Risk Factor Scores

1. Solvency Deficiency Amortization Period

Based on the risk score, the solvency deficiency amortization period might be established according to a scale such as the following:

Risk score	Solvency amortization period (years)
50 or more	5 (current requirement)
40-49	10
30-39	15
20-29	25
less than 20	not required

As the risk factors, risk scores and proposed solvency amortization periods are examples only, it is recommended that the actuaries be consulted to further identify and refine the risk factors, the risk scores and the solvency amortization periods.

2. Examples

The following table shows the application of the risk-based scoring system to six actual plans.

Plan	A	B	C	D	E	F
Going Concern Assets (\$000s)	184,500	19,300	32,400	13,400	69,800	9,300
Going Concern Liabilities (\$000s)	159,700	20,300	29,400	13,200	56,000	7,900
Going Concern Funded Ratio	116%	95%	110%	102%	125%	118%
Current Service Cost, incl. operating expenses (\$000s)	2,615	803	1,109	486	867	150
Annual Contributions (\$000s)	3,717	1,686	1,013	432	972	150
Contribution Margin	142%	210%	91%	89%	112%	100%
Contribution Leverage	43	12	29	31	58	53
Hours Change	55%	114%	108%	94%	110%	100%
Number of employers employing 75% of members	21	10	10	5	7	3
Investment in equities and real estate	65%	60%	65%	54%	65%	60%
Risk Score	30	18	20	41	15	25
Solvency Amortization Period (years)	15	not required	25	10	not required	25