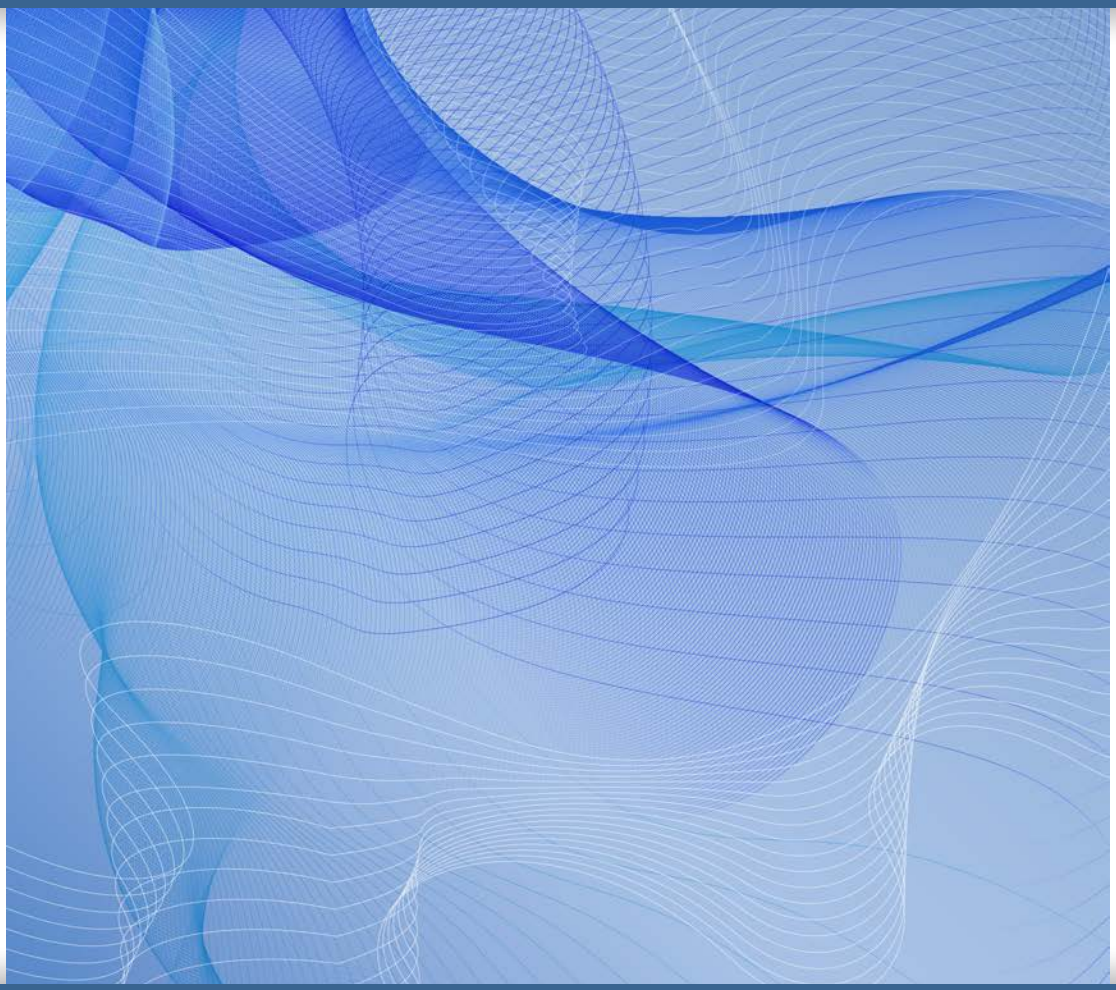
A Profile of Defined Benefit Pension Plans in British Columbia

JUNE 2015



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JUNE 2015

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Contents

About This Report

This is the first report on pension plan risk prepared by British Columbia's Superintendent of Pensions. It provides:

» A profile of the defined benefit pension plans registered in British Columbia as of December 31, 2013; and

» Plan risks we identified using the Risk-Based Pension Regulatory Framework we published in May 2014.

THE DEFINED BENEFIT PENSION PLAN PROFILE

To develop the profile, we analyzed data from the 199 defined benefit plans registered in BC with the benchmark date of December 31, 2013. In all, 144 plans filed actuarial valuation reports in 2013, and 126 of those had an effective date of December 31.

We restricted this first risk analysis to a subset of the 199 plans because some defined benefit plans had not yet filed reports containing sufficient data for us to develop a risk profile using our Regulatory Framework.

Based on discussions with plan actuaries, we concluded that the high number of off-cycle valuations[1] filed in 2013 was the result of significant improvements in financial markets in 2013 as well as of an increase in long bond rates that had positive effects on both the assets and liabilities of the plans.

FUNDING RELIEF MEASURES

Since 2008, the provincial government (through statute) and the Superintendent of Pensions (using discretionary authority under the *Pension Benefits Standards Act*) have granted pension plan sponsors relief to deal with the funding challenges that stemmed from the 2008 market crisis. These challenges have persisted with continued low interest rates that have affected pension plan liabilities.

Section 7 of this report provides summary statistics relating to the funding relief measures up to the end of 2013.

Our key findings are presented in the remaining sections of this report.

[1] *OFF-CYCLE VALUATIONS ARE ACTUARIAL VALUATION REPORTS THAT ARE FILED EARLIER THAN THE NEXT REQUIRED FILING DATE.*

Capital and Equity Markets Performance

CANADIAN INTEREST RATES

During 2013, longer-term interest rates, used to determine solvency liabilities, increased significantly from those in 2012 (see Table 2.1). This resulted in a decrease in solvency liabilities.

TABLE 2.1: GOVERNMENT OF CANADA BOND YIELDS AND SOLVENCY INTEREST RATES, AS AT DECEMBER 31, 2013, AND DECEMBER 31, 2012

	Rates in December 2013	Rates in December 2012
Government of Canada bonds[A]		
• Long-term (V122544)	3.20%	2.37%
• 10-year (V122543)	2.72%	1.82%
• 91-day T-bill (V122541)	0.89%	0.98%
Solvency interest rates (non-indexed pensions)[B]		
• Commuted value	3.00%/4.60%	2.40%/3.60%
• Annuity purchase	3.43%	2.56%

[A] *BANK OF CANADA STATISTICS: HTTP://WWW.BANKOFCANADA.CA/RATES/INTEREST-RATES/*

[B] *BASED ON CANADIAN INSTITUTE OF ACTUARIES' GUIDANCE. FOR COMMUTED VALUE, THE FIRST INTEREST RATE APPLIES TO THE FIRST 10 YEARS AFTER THE CALCULATION DATE AND THE SECOND INTEREST RATE APPLIES TO SUBSEQUENT YEARS.*

ASSET CLASS RETURNS

During 2013, most major equity markets posted strong gains. This was especially so in the U.S. and Japanese markets.

The Canadian dollar fell during the year relative to other currencies, which led to a further increase in 2013 net returns for unhedged pension funds holding U.S. and international stocks. As well, the Canadian fixed-income market experienced losses during the year, mainly as a result of the rise in bond yields that began in the late spring.

Longer-duration bonds did not perform as well as other fixed-income indices in 2013 because of the larger negative effects of rising yields on these securities.

The rates of return on major asset classes are summarized in Table 2.2.

TABLE 2.2: ASSET CLASS RETURNS OF THE GENERAL MARKET AS AT DECEMBER 31, 2013, AND DECEMBER 31, 2012 [A]

	Returns in 2013	Returns in 2012
Stock returns		
• Canadian equities: S&P TSX Composite	13.0%	7.2%
• U.S. equities: S&P 500 (Canadian dollars)	41.5%	13.5%
• Non-North America equities: MSCI – EAFE (Canadian dollars)	31.0%	14.7%
Fixed-income returns		
• 90-day T-bills	1.0%	1.0%
• DEX Universe Bond	-1.2%	3.6%
• DEX Long Bonds	-6.2%	5.2%

[A] *AUBIN CONSULTING ACTUARY INC. STATISTICS. WWW.AUBINACTUAIRECONSEIL.CA/STATS_EN.PHP?STARTAT=10*

Membership Makeup and Design Type of Defined Benefit Plans

Note: The demographic profile provided in this section is based on Annual Pension Reports.

PLAN MEMBERSHIP

As of December 31, 2013, BC had 199 registered defined benefit plans covering:

» 421,710 active members;

» 251,754 retired members (including surviving beneficiaries); and

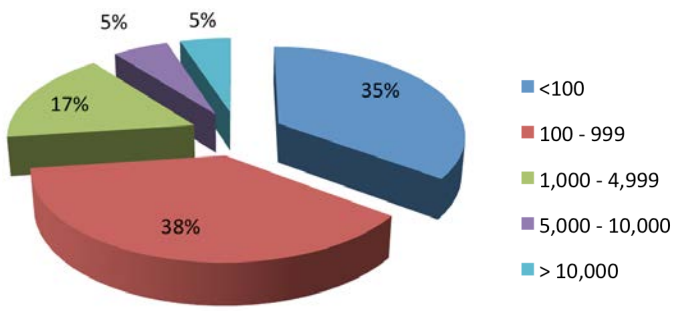
» 161,109 other people entitled to benefits.

The distribution of plans by number of covered members is shown in Table 3.1 and Figure 3.1.

TABLE 3.1: NUMBER OF COVERED MEMBERS IN DEFINED BENEFIT PENSION PLANS, AS AT DECEMBER 31, 2013

Number of Covered Members	Number of Plans
Fewer than 100	70
100–999	75
1,000–4,999	33
5,000–9,999	11
More than 10,000	10
Total	**199**

FIGURE 3.1: PERCENTAGE DISTRIBUTION OF DEFINED BENEFIT PENSION PLANS BY NUMBER OF COVERED MEMBERS, AS AT DECEMBER 31, 2013



Defined benefit plans are continually maturing for a number of reasons. One is the move away from such plans in favour of defined contribution plans. Another is the fact that some plans have been closed to new members.

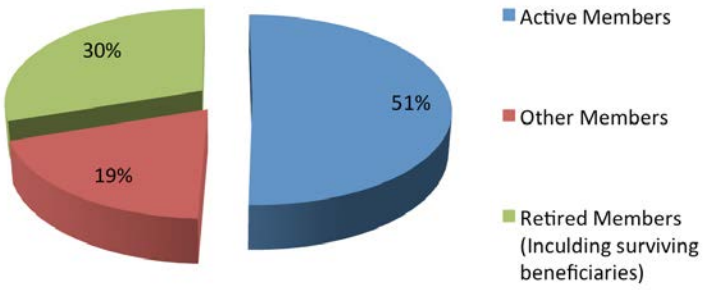
The distribution of membership by status is shown in Table 3.2. The number of active members participating in defined benefit plans in 2013 was 51% of total membership, compared with 59% in 2003 (Figure 3.2).

TABLE 3.2: NUMBER OF DEFINED BENEFIT PENSION PLAN MEMBERS BY MEMBERSHIP STATUS, AS AT DECEMBER 31, 2013

Membership Status	Number of Members
Active members	421,710
Retired members (including surviving beneficiaries)	251,754
Other members[A]	161,109
Total	**834,573**

[A] NON-RETIRED MEMBERS WITH BENEFIT ENTITLEMENTS UNDER THE PLAN.

FIGURE 3.2: PERCENTAGE DISTRIBUTION OF DEFINED BENEFIT PENSION PLAN MEMBERS BY MEMBERSHIP STATUS, AS AT DECEMBER 31, 2013



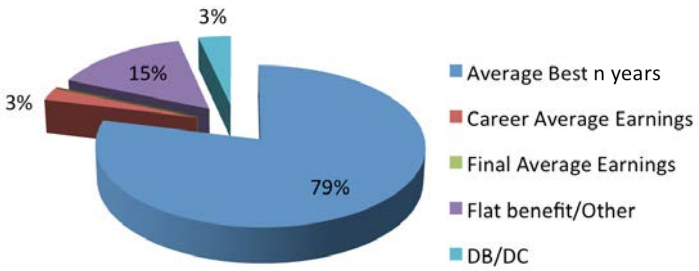
PLAN DESIGN TYPE

The defined benefit plans included in this report are of five main design types, as shown in Table 3.3. The benefit accruals of over 80% of these plans are based on the earnings of members (see Figure 3.3).

TABLE 3.3: NUMBER OF DEFINED BENEFIT PENSION PLANS BY PLAN DESIGN TYPE, 2013

Type of Plan	Number of Plans	Number of Active Members
Average best *n* years	70	332,500
Career average earnings	24	10,859
Final average earnings	8	148
Flat benefit/Other	54	63,176
Combination defined benefit and defined contribution	43	15,027
Total	**199**	**421,710**

FIGURE 3.3: PERCENTAGE DISTRIBUTION OF DEFINED BENEFIT PENSION PLAN ACTIVE MEMBERSHIP BY PLAN DESIGN TYPE, IN 2013



Fund Asset Mix and Performance of Defined Benefit Plans

Note: The asset allocation information provided in this section is based on Annual Pension Reports.

As of December 31, 2013, defined benefit plans registered in BC held assets of $109.6 billion:

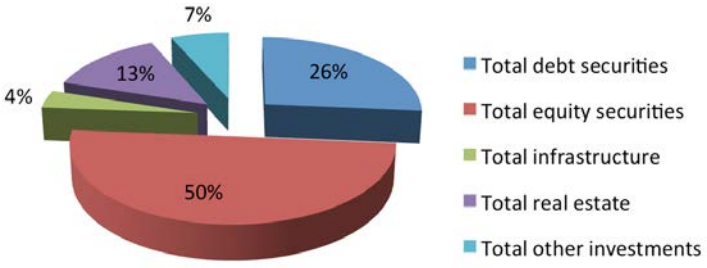
- 50% of these assets were invested in publicly traded equities;
- 26% were invested in fixed-income securities;
- 13% were invested in real estate investments; and
- 11% were invested in other vehicles, including hedge funds, private equities, financial derivatives and infrastructure.

Table 4.1 and Figure 4.1 provide a breakdown of those allocated assets.

TABLE 4.1: ASSET ALLOCATION OF ALL DEFINED BENEFIT PENSION PLANS COMBINED, AS AT DECEMBER 31, 2013

Asset Class	Market Value ($ Millions)
Total debt securities	$28,888
Total equity securities	$54,491
Total real estate	$14,698
Total infrastructure	$4,080
Total other investments	$7,450
Total	**$109,607**

FIGURE 4.1: PERCENTAGE DISTRIBUTION OF ASSET ALLOCATION ACROSS ALL DEFINED BENEFIT PENSION PLANS, AS AT DECEMBER 31, 2013



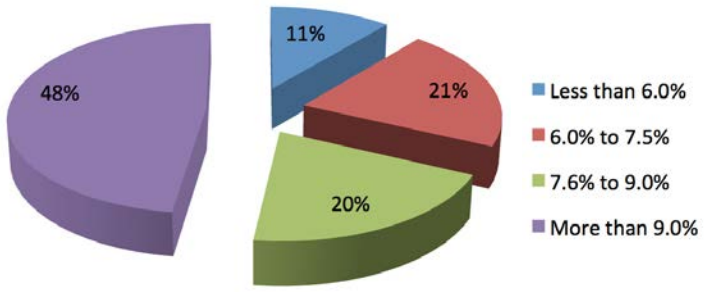
Most plans reported investment returns higher than the assumptions used in their valuation reports. The median investment return assumed in valuation reports was 5.5%; the median return on assets was 8.9%. These higher returns were due mainly to a significant improvement in the performance of the equity markets in 2013.

Table 4.2 shows the annual rates of return on market value of assets among the plans that filed actuarial valuation reports in 2013.

TABLE 4.2: ANNUAL RATES OF RETURN ON MARKET VALUE OF ASSETS IN DEFINED BENEFIT PENSION PLANS, AS AT DECEMBER 31, 2013

Investment Rate of Return (%)	Number of Plans
Less than 6.0%	16
6.0% to 7.5%	30
7.6% to 9.0%	29
More than 9.0%	69
Total	**144**

FIGURE 4.2: PERCENTAGE DISTRIBUTION OF ANNUAL RETURNS ON MARKET VALUE OF ASSETS ACROSS DEFINED BENEFIT PENSION PLANS, AS AT DECEMBER 31, 2013



Contributions to Defined Benefit Plans

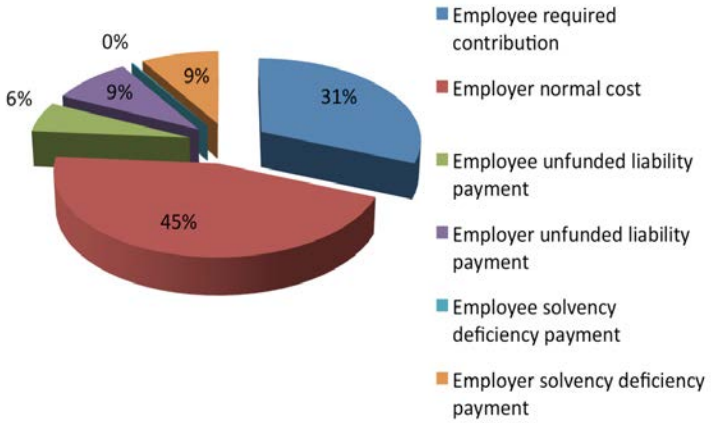
The total contributions made to meet the benefit obligations of all defined benefit plans for the year 2013 was approximately $4.2 billion. Table 5.1 shows a breakdown of the required contributions, by type.

More than 75% ($3.2 billion) of those contributions made to the plans went to pay for benefits earned in 2013 (Figure 5.1). The remaining 25% of contributions ($1.0 billion) went to pay existing shortfalls.

TABLE 5.1: CONTRIBUTIONS TO DEFINED BENEFIT PENSION PLANS BY TYPE OF CONTRIBUTION, IN 2013

Type of Contributions Made	Amount Contributed ($ Thousands)
Employee required contributions	$1,309,816
Employee unfunded liability payments	$248,030
Employee solvency deficiency payments	$7,405
Employer normal cost	$1,890,467
Employer unfunded liability payment	$376,807
Employer solvency deficiency payment	$362,807
Total employer and employee contributions	**$4,194,551**

FIGURE 5.1: PERCENTAGE DISTRIBUTION OF REQUIRED CONTRIBUTIONS FOR ALL DEFINED BENEFIT PENSION PLANS, BY TYPE OF CONTRIBUTION, AS AT DECEMBER 31, 2013



Funding of Defined Benefit Plans

Note: The funding analysis of defined benefit pension plans provided in this section relates only to the 126 plans that filed an Actuarial Information Summary (AIS) along with their actuarial valuation reports.

A *going concern valuation* of a plan provides an evaluation of the plan's funded status, assuming that the plan continues indefinitely and benefits continue to be paid. The *going concern funded ratio* of a plan is the ratio of the plan's going concern assets to the plan's going concern liabilities. In short, this ratio measures the ability of a plan to meet its obligations over the long term.

The *solvency valuation* of a plan estimates the plan's ability to meet its obligations, assuming that the plan is terminated and must pay all of its obligations immediately. The *solvency ratio* of a plan is the ratio of the plan's solvency assets to the plan's solvency liabilities.

OVERALL FUNDING

Table 6.1 shows the key funding figures for defined benefit plans that filed an actuarial valuation as of December 31, 2013.

While the plans in aggregate are fully funded on a going concern basis, total funding balance for plans in deficit still total –$348,282,000 and this deficit has to be funded over the prescribed periods.

Plans on aggregate were almost fully funded on a solvency basis at 99% compared to 79% at 2012. The total funding balance for plans with a solvency deficit in 2013 was –$583,575,000.

TABLE 6.1: KEY FUNDING FIGURES FOR GOING CONCERN AND SOLVENCY VALUATIONS AS AT DECEMBER 31, 2013

	Going Concern Valuations ($ Thousands)	Solvency Valuations ($ Thousands)
Total assets	$12,497,239	$13,636,746
Total liabilities	$12,001,431	$13,757,138
Aggregate funding balance (i.e., total assets minus total liabilities)	$495,808	–$120,391
Total funding balance for plans in deficit	–$348,282	–$583,575
Total funding balance for plans in surplus	$844,090	$463,184
Total funded ratio (total assets ÷ total liabilities)	104%	99%

GOING CONCERN FUNDING

Going Concern Discount Rate Assumption

One of the most significant assumptions in determining the going concern liabilities and normal actuarial costs for a plan is the going concern discount rate (or valuation interest rate). It represents the long-term expectation of investment return given the asset allocation of the plan.

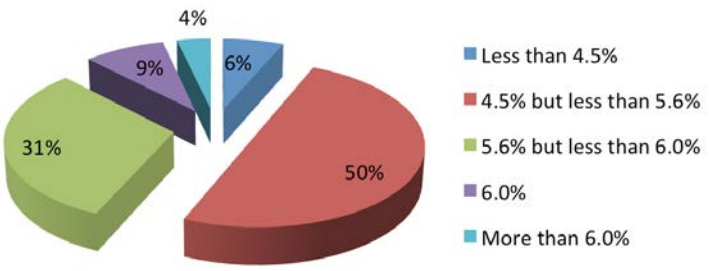
Among the plans that filed 2013 valuations, the lowest going concern discount rate used was 3.3%. The highest was 6.6% (only five plans used a discount rate higher than 6.0%). The median discount rate used was 5.5%. See Table 6.2 and Figure 6.1.

These results are broadly consistent with the discount rate assumptions used for defined benefit plans registered in Alberta (for which the median rate used was also 5.5%).

TABLE 6.2: NUMBER OF DEFINED BENEFIT PENSION PLANS BY GOING CONCERN DISCOUNT RATES, 2013

Going Concern Discount Rates	Number of Plans
Less than 4.5%	9
4.5% to less than 5.6%	69
5.6% to less than 6.0%	43
6.0%	12
More than 6.0%	5
Total	**138**

FIGURE 6.1: PERCENTAGE DISTRIBUTION OF GOING CONCERN DISCOUNT RATES FOR ALL DEFINED BENEFIT PENSION PLANS, AS AT DECEMBER 31, 2013



Going Concern Mortality Assumption

Another key assumption for pension plan valuations is the mortality rate. On February 13, 2014, the Canadian Institute of Actuaries issued a final report on Canadian pensioners' mortality. The report contains mortality tables and improvement scales.

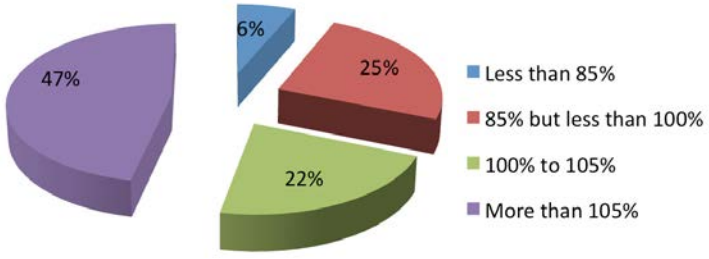
Almost all plans filing valuations for 2013 used the CPM 2014 tables and improvement scales. Only five plans filed valuations using other mortality tables.

Table 6.3 and Figure 6.2 show the range of going concern funding ratios for defined benefit plans that filed actuarial valuation reports with effective dates in 2013.

TABLE 6.3: NUMBER OF DEFINED BENEFIT PENSION PLANS BY GOING CONCERN FUNDING RATIO, 2013

Going Concern Funding Ratio	Number of Plans
Less than 85%	9
85.0% but less than 100%	36
100% to 105%	32
More than 105%	67
Total	**144**

FIGURE 6.2: PERCENTAGE DISTRIBUTION OF GOING CONCERN FUNDED RATIOS FOR ALL DEFINED BENEFIT PENSION PLANS, AS AT DECEMBER 31, 2013



SOLVENCY FUNDING

The solvency position of pension plans improved significantly in 2013. This was due mainly to the increase in the discount rates used in determining the solvency liabilities, and to the improvement in the value of plan assets as a result of the positive performance of the equity markets.

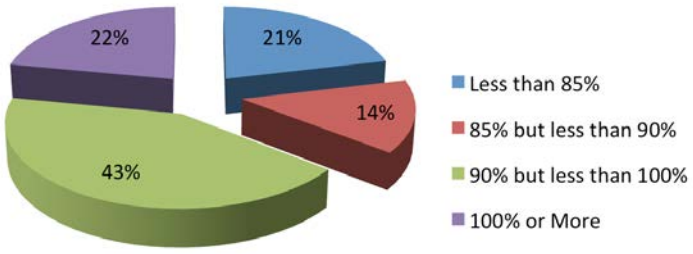
The discount rates used in determining the commuted values for non-indexed plans (December 31, 2013) were 3.0% for the first 10 years and 4.6% thereafter. These rates were significantly higher than the 2012 rates of 2.4% for the first 10 years and 3.6% thereafter.

Table 6.4 and Figure 6.3 show the distribution of solvency ratios of plans that filed actuarial valuation reports in 2013.

TABLE 6.4: NUMBER OF DEFINED BENEFIT PENSION PLANS BY SOLVENCY RATIO, 2013

Solvency Ratio	Number of Plans
Less than 85%	30
85% but less than 90%	20
90% but less than 100%	62
100% or more	32

FIGURE 6.3: PERCENTAGE DISTRIBUTION OF SOLVENCY RATIOS FOR ALL DEFINED BENEFIT PENSION PLANS, AS AT DECEMBER 31, 2013



Since the 2013 actuarial valuation filings, solvency discount rates have dropped back to 2012 levels. As of December 2014, the discount rate used to calculate commuted values was 2.5% for the first 10 years – only 0.10% higher than the corresponding December 2012 rate.

As a consequence, plans that file valuations with an effective date of December 31, 2014, or later may see a decline in their solvency funding position.

Funding Relief Measures

Various temporary funding relief measures have been provided to employers to help manage the economic impacts of the 2008 financial crisis and the decline in the long-term interest rates used to determine solvency liabilities.

Such measures fall into two main categories: statutory relief provided by government; and discretionary authority exercised by the Superintendent of Pensions, as permitted by the *Pension Benefits Standards Act* and Regulation.

- **Solvency Moratorium**: The Pension Benefits Standards Regulation (PBSR) allows the Superintendent to consent to the suspension of solvency payments to a multi-employer negotiated cost (MENC) plan for up to three years.
- **Letter of Credit:** The PBSR was amended in 2008 to allow an employer (other than one under a defined benefit MENC plan) to use a letter of credit to secure solvency deficiency payments instead of having to make some or all of the required solvency deficiency payments.
- **Solvency Extension:** Since 2006, the Superintendent of Pensions has consented to requests to extend the periods required to amortize solvency pension deficits. Each sponsor applying had to establish that the payment of such amounts would have a significant negative financial impact on the continuing operation of the plan sponsor.

Table 7.1 shows the number of plans that have used funding relief provisions each year from 2009 to 2014. In all, 77% of solvency relief has been provided by either a solvency moratorium or a letter of credit.

TABLE 7.1: NUMBER OF DEFINED BENEFIT PENSION PLANS GRANTED SOLVENCY RELIEF PER YEAR, BY TYPE OF RELIEF, 2009–2014

Year Granted	Relief Types			Total Relief Granted Per Year
	Solvency Moratorium	Letter of Credit	Solvency Extension	
2009	0	1	6	7
2010	0	3	1	4
2011	2	5	2	9
2012	3	4	1	8
2013	10	9	4	23
2014	12	11	4	27
Total	**27**	**33**	**18**	**78**

FICOM's Funding Risk Assessment

Note: The funding risk analysis of defined benefit pension plans provided in this section relates only to the 126 plans that filed an Actuarial Information Summary (AIS) along with their actuarial valuation reports.

In May 2014, FICOM published a Risk-Based Regulatory Framework for pension plans registered in BC. The framework, which describes FICOM's process for developing the risk profile of pension plans, uses early warning risk indicators to identify potential plan funding risk.

Early warning risk indicators are used as an initial screening tool to identify which pension plans may have problems meeting the minimum funding requirements or complying with the *Pension Benefits Standards Act*. From this initial screening, we determine which plans should receive further analysis.

In this section, we report on the results of our analysis after applying the early warning indicators. We describe each early warning risk indicator and then summarize the results of the scoring applied to pension plans that filed an actuarial valuation as of December 31, 2013.

EARLY WARNING RISK INDICATORS AND THE COMPOSITE RISK RATING

We use the following three key indicators to establish a preliminary funding risk for a plan:

- **Funding Adequacy Ratio**: This compares the level of a plan's current contributions with the expected level of contributions determined on a prudent funding basis. We develop this ratio using what we consider to be an appropriate benchmark discount rate for the segment of the plan, as well as the liability distribution of the plan.
- **Solvency Ratio**: This measures the extent to which pension benefits of members are covered by the plan assets if the plan were to wind up.
- **Contribution Variance Ratio**: This compares the actual amount of contributions remitted to a plan with the amount of required contributions estimated in the last filed actuarial valuation report. In effect, this measure assesses the extent of compliance with prescribed funding requirements.

Risk indicators are used to develop a numerical risk rating score from 1 to 5 for each plan. A rating of 1 indicates a lower risk level; a rating of 5 indicates the highest risk level. This risk rating score is used to help the Superintendent of Pensions prioritize pension plans that will be subject to in-depth review, and it serves as a starting point for further risk assessment. The risk indicators are presented as a composite risk rating (CRR).

A CRR (represented by a numerical score from 1 to 5) is developed for each plan, taking into consideration the unique risk characteristics of each one. We divide the plans into three segments –private sector, multi-employer negotiated cost, and public sector – because of their unique characteristics, and then we apply appropriate weighting to their risk scores. We review the appropriateness of these weightings on a regular basis.

Table 8.1 shows the weighting applied to each indicator by plan segment.

TABLE 8.1: RISK INDICATOR WEIGHTINGS FOR COMPOSITE RISK RATINGS, BY PLAN SEGMENT

Risk Indicator	Weighting (%) by Plan Segment		
	Private Sector	Multi-Employer Negotiated Cost (MENC) Plan	Public Sector
Funding adequacy ratio	40%	60%	60%
Solvency ratio	40%	20%	20%[A]
Contribution variance ratio	20%	20%	20%

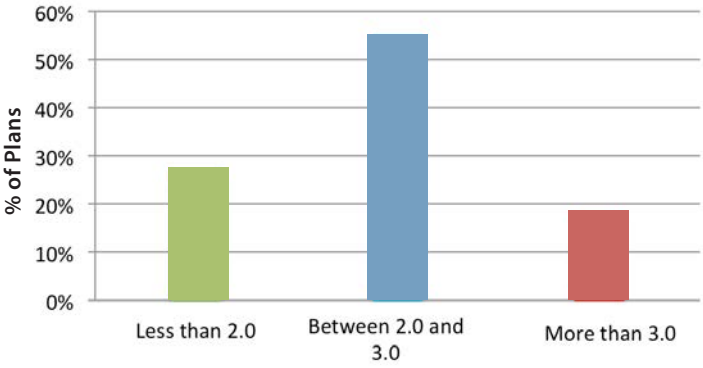
[A] THE SOLVENCY RATIO RISK INDICATOR IS NOT APPLIED TO THE FOUR PUBLIC SECTOR PLANS: PUBLIC SERVICE PENSION PLAN, MUNICIPAL PENSION PLAN, TEACHERS' PENSION PLAN, AND COLLEGE PENSION PLAN.

The CRR provides an initial assessment of the funding adequacy of the plan in question and a basis for further risk assessment. Table 8.2 shows the CRR distribution for plans that filed an actuarial valuation report with an effective date of December 31, 2013.

TABLE 8.2: DISTRIBUTION OF COMPOSITE RISK RATINGS FOR DEFINED BENEFIT PENSION PLANS THAT FILED AN ACTUARIAL VALUATION REPORT WITH AN EFFECTIVE DATE OF DECEMBER 31, 2013

Range of Composite Risk Ratings	Number of Plans
Less than 2.0	34
Between 2.0 and 3.0	69
More than 3.0	23
Total	**126**

FIGURE 8.1: PERCENTAGE DISTRIBUTION OF COMPOSITE RISK RATINGS FOR DEFINED BENEFIT PENSION PLANS AS OF DECEMBER 31, 2013



For the 2013 valuations, the 23 plans with a CRR of 3.0 or higher are subject to an in-depth review. This first stage of our in-depth review (referred to as the Stage 1 Review) focuses on assessing both funding risk and investment risk. This 3.0 CRR threshold may vary in each valuation year.

Depending on the results of the Stage 1 Review, a number of plans may be selected for further risk analysis. This stage of risk analysis involves an assessment of the strength of the governance structure of the selected plans as well as of the financial strength of the employers sponsoring the plan. In this assessment, we look at how the continued funding of the pension plan could put significant stress on the financial resources of the employer. This is referred to as a Stage 2 Review.

IDENTIFYING LONG-TERM FUNDING RISK

The funding adequacy ratio (FAR) measures a plan's long-term funding risk by comparing the adequacy of a plan's going concern funding with a prudent level of funding for the particular plan using a *benchmark discount rate* (BDR).[2]

The discount rate assumption used in the going concern valuation of a plan is one of the most important factors governing the level of contributions required to fund the plan's benefits. It reflects the expected yield on the pension fund assets over the long term.

[2] *FOR RISK ASSESSMENT PURPOSES, THE BDR IS TAKEN AS THE MEDIAN DISCOUNT RATE USED BY PLANS IN EACH PLAN SEGMENT.*

To estimate the long-term funding risk assumed by a plan, we first adjust a plan's going concern liabilities based on a BDR established for each segment of plans. This calculation takes into account the impact on plan liabilities from a 1% decrease in the plan's going concern discount rate. We then adjust the statutory 15-year amortization period of any unfunded liabilities to more accurately reflect the maturity of the plan.

The FAR is calculated by dividing the contribution level as indicated in the plan's most recent actuarial valuation with the contribution level we determined using the BDR. For example, a FAR of 0.80 means that the rate of contributions recommended in the actuarial valuation report is only 80% of what we estimate is required to fund the plan's benefits on a prudent basis.

The BDRs for the different plan segments (determined as of December 31, 2013) are shown in Table 8.3.

TABLE 8.3: BENCHMARK DISCOUNT RATES BY PLAN SEGMENT, AS AT DECEMBER 31, 2013

Plan Segment	Benchmark Discount Rate
Private sector	5.5%
Multi-employer negotiated cost (MENC) plan	5.5%
Public sector	6.0%

Table 8.4 shows the distribution of FARs for the December 31, 2013 filings.

TABLE 8.4: FUNDING ADEQUACY RATIO (FAR) BY NUMBER OF PLANS AND PERCENTAGE OF TOTAL

Funding Adequacy Ratio	Number of Plans	% of Total
Less than 0.7	7	5
0.7 to less than 0.8	8	7
0.8 to less than 0.9	18	14
0.9 to less than 1.0	39	31
More than 1.0	54	43
Total	**126**	**100**

Of the plans that filed a December 31, 2013, actuarial valuation report, 33 had a FAR of less than 0.90. This suggest that the current funding levels may be adequate to fund only up to 90% of the benefits being accrued by these plans.

IDENTIFYING SHORT-TERM FUNDING RISK

In assessing the short-term funding risk, we consider both the contribution variance as well as the solvency position of the plan. Plans with a significantly low solvency ratio will require the employer to pay higher contributions to fund the benefits (potentially placing strain on the financial resources of the employer).

Solvency Ratio Risk Indicator

The distribution of solvency risk (based on the solvency ratios for all defined benefit plans that filed an actuarial valuation report at December 31, 2013) is shown Table 8.5.

TABLE 8.5: SOLVENCY RATIO (SR) RISK AND THRESHOLD BY PERCENTILE, AS AT DECEMBER 31, 2013

Solvency Ratio Percentile	Risk Score	Threshold Solvency Ratio
Less than 20th	5	Below 87%
20th to less than 40th	4	92%
40th to less than 60th	3	96%
60th to less than 80th	2	100%
More than 80th	1	Above 100%

A note about risk classification: A risk score is determined based on the percentile distribution of the solvency ratios of plans that filed valuation reports. FICOM adjusts the classification of the risk scores based on the prevailing economic environment. For example, while a solvency ratio below 87% receives the highest risk score in 2013, this solvency level would have been medium risk at the end of 2008.

In all, 55% of plans that filed actuarial valuations in 2013 had a solvency risk score of 3.0 or higher.

Contribution Variance Risk Indicator

The contribution variance measures the extent of the difference between actual contributions made during the period and the expected contributions for the same period. We refer to this as the contribution ratio (CR). Table 8.6 shows the classification of contribution variance risk based on the CR level.

TABLE 8.6: CONTRIBUTION VARIANCE RISK, BASED ON CONTRIBUTION RATIO (CR) LEVEL

Contribution Ratio	Risk Score
Less than 0.7	5
0.7 to less than 0.8	4
0.8 to less than 0.9	3
0.9 to less than 1.0	2
1.0 or more	1

Over 85% of the defined benefit plans that filed valuations as of December 31, 2013, had CRs of at least 0.9.

The CR does not reflect any changes in covered payroll or hours worked, which might have occurred during the inter-valuation period. However, plans with a low CR ratio provide FICOM analysts with an early opportunity to investigate the factors that might have contributed to the material differences between the actual and estimated contributions.

Implications and Next Steps

Based on what we have learned through the risk prioritization process described in this report, we intend to take the following steps in supporting our comprehensive Risk-Based Regulatory Framework:

- FICOM will encourage plan administrators to: identify and document significant risks to the security of benefits provided by their plans; and take proactive actions to minimize the probability of an adverse event having a significant impact on their plans.
- Minimum funding requirements prescribed by legislation may not provide sufficient safeguards to the benefits promised by a plan. Therefore, in applying a risk-based approach to pension regulation, FICOM will look beyond ensuring that plans meet their minimum funding requirements. For plans that are assessed to be of a higher risk through the funding risk review, we will investigate the strength of the sponsor and the quality of plan governance in order to assess the plan's overall net risk.
- FICOM will work to make risk-based thinking a way of doing business in meeting its regulatory mandates. This will include instituting an annual risk review process for defined benefit plans, as well as expanding into the analysis of defined contribution plans risk.

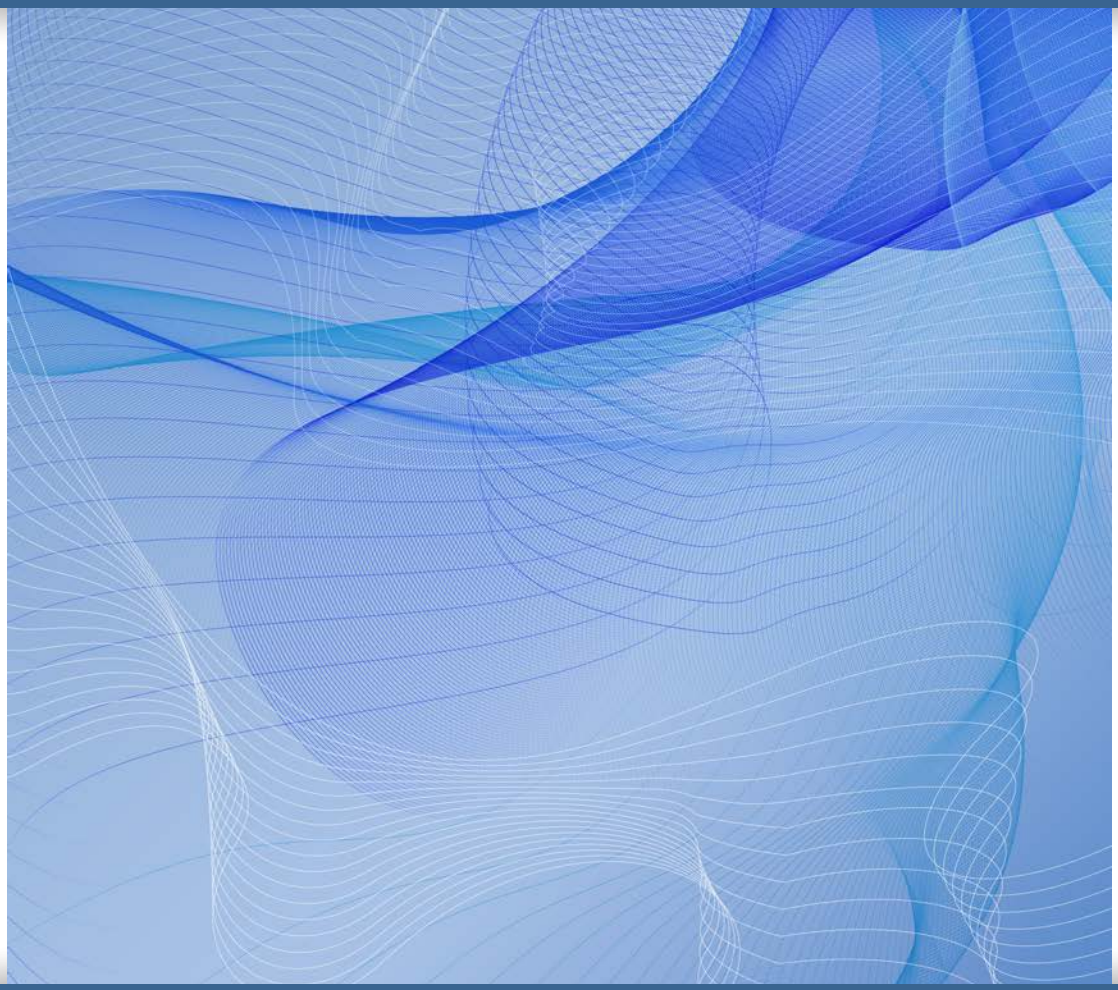
NEXT STEPS

FICOM is undertaking the following activities in 2015:

- Reviewing the risk criteria and thresholds established to assess whether they remain appropriate.
- Reporting on the results of the Funding and Investment risk review for all plans that filed valuation reports in 2013.
- Assessing sponsor risk and plan governance risk in a selection of higher-risk plans (Stage 2 Reviews).
- Developing a baseline for pension plan governance by undertaking a governance self-assessment survey for all plans.

Notes

FOR MORE INFORMATION, PLEASE VISIT US ONLINE:
WWW.FIC.GOV.BC.CA
OR CALL OUR TOLL-FREE PHONE LINE: 1 (866) 206-3030.



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