Report on Pension Plans

Registered in British Columbia

BCFSA

DECEMBER 2020

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1. Overview

This report presents a snapshot of the current state of registered pension plans in British Columbia. It summarizes the recent experience of pension plans that are categorized as defined benefit (DB), defined contribution (DC), and target benefit (TB). Prepared by BC Financial Services Authority (BCFSA), the report also provides an opportunity for the Superintendent of Pensions to engage with stakeholders and inform them of the work the regulator is undertaking to be modern, efficient and effective.

2. About BCFSA

BCFSA is B.C.'s regulator of pension plans, credit unions, insurance and trust companies and mortgage brokers. BCFSA also administers the Credit Union Deposit Insurance Corporation (CUDIC) which provides protection for the depositors who utilize B.C.'s credit unions. BCFSA oversees over 6,000 businesses in British Columbia and works closely with multiple stakeholders such as market participants, all levels of government, consumers and other regulators.

BCFSA's mandate outlines a goal of becoming a modern, efficient and effective regulator for the entire financial services sector.

BCFSA officially became a Crown agency on November 1, 2019 and assumed the regulatory accountabilities of the Financial Institutions Commission (FICOM). Shortly after its transition, the Minister of Finance announced that the Real Estate Council of B.C. (RECBC) and the Office of the Superintendent of Real Estate (OSRE) were to integrate with BCFSA to create a single regulator overseeing the financial services sector, including real estate. Bringing all three entities together will harmonize best practices in regulation, including the sharing of data and knowledge, allowing for a coordinated regulatory approach. It will provide for a greater scope of authority when it comes to market conduct and increase consumer protection in key risk areas such as anti-money laundering. For consumers, it will mean easier access to information and guidance on financial services issues, with the goal of increasing public confidence in the regulation of the financial services sector.

3. Legislation

SOME IMPORTANT PENSION PLAN TERMINOLOGY:

A going concern valuation of a plan provides an estimate of the plan's funded status if 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

The solvency valuation of a plan estimates the plan's ability to meet its obligations if 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

B.C. PENSION BENEFITS STANDARDS REGULATION (PBSR)

Effective December 31, 2019 the Government of British Columbia amended the requirements in the PBSR for DB plans to increase going concern funding requirements, reduce solvency funding requirements, limit contribution holidays, and restrict withdrawals of going concern excess. The amendments also included a change to the requirements for target benefit plans to permit a single employer to offer these types of plans. These amendments were made through Order In Council No. 649.

The amendments included changing the solvency funding target from 100 per cent to 85 per cent i.e. plan sponsors must make additional contributions to their pension plan if the plan is under 85 per cent funded on a solvency basis. Payments are required to bring the funding up to 85 per cent, whereas in the past, payments to fund 100 per cent of the deficit were required. To compensate for the lower funding requirements on a solvency basis, additional contributions are required for a buffer called a provision for adverse deviation (PfAD) which is expressed as a proportion of plan liabilities. Payments are required to fund the PfAD on both the going concern liability (pensions already earned) and the normal cost (pension expected to be earned in the current year). An additional amendment to the PBSR allows plans to reset at each valuation the amortization schedule of contributions required to address any shortfalls, be they on a going concern or solvency basis. This is often referred to as a Fresh Start approach. The Superintendent may refuse to register an amendment to a pension plan to improve benefits that results in the solvency funded ratio falling below 85 per cent; in the past that threshold was 90 per cent.

For most DB plan sponsors, funding on a solvency basis has been a significant part of the cost of funding plans in recent years. Furthermore, since they are based on recent interest rates, solvency deficit payments can change significantly with each actuarial valuation, complicating the budgeting process for plan sponsors. Legislation in several provinces has been amended to address this. For instance, Nova Scotia and Ontario now require payments to bring the solvency funded ratio to 85 per cent and to fund a PfAD, while Quebec has eliminated requirements to fund on a solvency basis. It is anticipated that this year more B.C.-registered plans will conduct actuarial valuations reviewing their funded status to allow the plan sponsors to fund based on the amended legislation.

Information bulletins PENS 19-004 and PENS 20-001 further describe the B.C. defined benefit funding requirements and related amendments.

MULTI-JURISDICTIONAL AGREEMENT

The 2020 Agreement Respecting Multi-Jurisdictional Pension Plans came into effect on July 1, 2020 to coordinate pension regulation across Canada. All Canadian pension jurisdictions except Manitoba and Newfoundland and Labrador are signatories. This Agreement establishes a framework for the administration and regulation of multi-jurisdictional pension plans and replaces the 2016 Agreement Respecting Multi-Jurisdictional Pension Plans. The 1968 reciprocal agreement (and any similar federal-provincial bilateral agreement) will remain in effect for Manitoba and Newfoundland and Labrador. A summary of key differences between the 2016 and 2020 agreements has been issued by the Canadian Association of Pension Supervisory Authorities (CAPSA).

4. Economic Overview

The performance of the Canadian economy affects pension plans either through the impact of the markets on the plans' assets or through the financial strength of the employers sponsoring the plans. The Canadian economy grew at a moderate pace of 1.6 per cent in 2019 even though the economic activity in Canada slowed in the last quarter. Housing in Canada's biggest cities rebounded, and business investment indicates higher productivity than expected. Yet global trade wars, climate change and the prolonged economic downturn in Alberta created challenges for parts of the economy.

Business investment growth in Canada softened in 2019 due to the slowdown in global growth, the increase in trade conflicts and related uncertainty. In contrast, the labour market in Canada remained resilient throughout most of the year. The demand for labour was strong in 2019, with employment growing by 2.1 per cent and membership in pension plans registered in B.C. increasing by four per cent as discussed in section 5 below. The unemployment rate reached an all-time low in 2019, while growth in wages picked up. Although household spending softened late in the year, it held up well overall, supported by the solid labour market. The housing sector, boosted by strong immigration and low mortgage rates, rebounded after adjusting to policy changes made in 2016–18.

Despite the increasingly challenging global trade environment and the ongoing adjustments in Canada's energy-producing regions, the Bank of Canada kept interest rates steady and inflation near target in 2019.

Government of Canada Bond Yields and Solvency Interest Rates

Government of Canada Bond Yields[1]	Jun 2020	Dec 2019	Dec 2018	Dec 2017
Long-term (V122544)	1.02%	1.67%	2.15%	2.20%
10-year (V122543)	0.54%	1.61%	1.98%	1.98%
91-day T-bill (V122541)	0.21%	1.67%	1.67%	1.05%
Solvency Interest Rates (non-indexed)[2]				
Commuted value	1.3%/2.3%	2.4%/2.5%	3.2%/3.4%	2.6%/3.4%
Annuity purchase	2.51%	2.96%	3.23%	3.02%

On the fixed income side, bond yields in advanced economies were at or close to their historical lows because of market expectations and massive asset purchases by central banks. In 2019, the yields on Government of Canada long-term bonds declined by 0.48 per cent as shown in the table above with a further drop of 0.65 per cent in the first half of 2020. By August 2020, U.S. investment-grade bond yields had reached an all-time low of 1.82 per cent, according to an article by analysts at Bloomberg[3]. The low yields of these bonds imply market expectations of low inflation and growth for decades to come.

The Bank of Canada in its July 2020 Monetary Policy Report signaled that the economic recovery from the COVID-19 pandemic will be slow and take several years. To keep short and long-term borrowing costs low, Canada's central bank is providing economic stimulus by purchasing at least $5 billion per week of Government of Canada bonds, as well as providing forward guidance. On the supply side, the unprecedented issuance of $106 billion in 10-year and 30-year bonds by the Government of Canada is providing additional supply of the long-term bonds that benefit formula (TB and DB) plans seek as they continue to invest to match the duration of assets to liabilities[4]. For those plans which do not fully duration match, the sharp drop in interest rates will pose funding challenges.

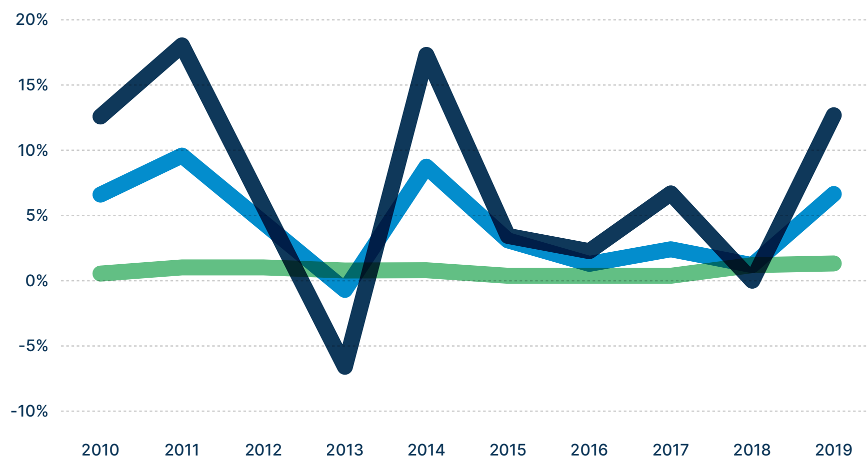
1 Bank of Canada, http://www.bankofcanada.ca/rates/interest-rates/
2 Based on guidance from the Canadian Institute of Actuaries. For calculation of a commuted value (lump sum payment), the first interest rate applies to the first 10 years after the calculation date and the second interest rate applies to subsequent years. The annuity purchase rate shown is that for an illustrative block with medium duration.
3 Paula Seligson and Gowri Gurumurthy at Bloomberg news, U.S. Junk Bond Market Sets Record-Low Coupon in Relentless Rally, August 10, 2020 https://www.bloomberg.com/news/articles/2020-08-10/u-s-junk-bond-market-sets-record-low-coupon-in-relentless-rally
4 Yaelle Gang for Canadian Investment Review, What does an increase in long-term government debt issuance mean for pension plans? August 5, 2020 http://www.investmentreview.com/news/what-does-an-increase-in-long-term-government-debt-issuance-mean-for-pension-plans-11869

While the coupons on bonds continue to decline, reducing that component of income on bonds, price gains led to overall higher bond returns[5] in 2019. The chart below shows the investment gains experienced by key Canadian bond indices in 2019. The Canadian FTSE universe[6], long and short-term (91 Day T-Bill) indices provided returns of 7.2 per cent, 13.5 per cent and 1.6 per cent respectively in 2019 compared to the period of 2015-2018, where the returns on universe and long-term bonds were at or below 7 per cent.

Annual Fixed Income Index Returns:

- FTSE Canada Long Bond
- FTSE Canada Universe Bond
- FTSE Canada 91 Day T-Bill

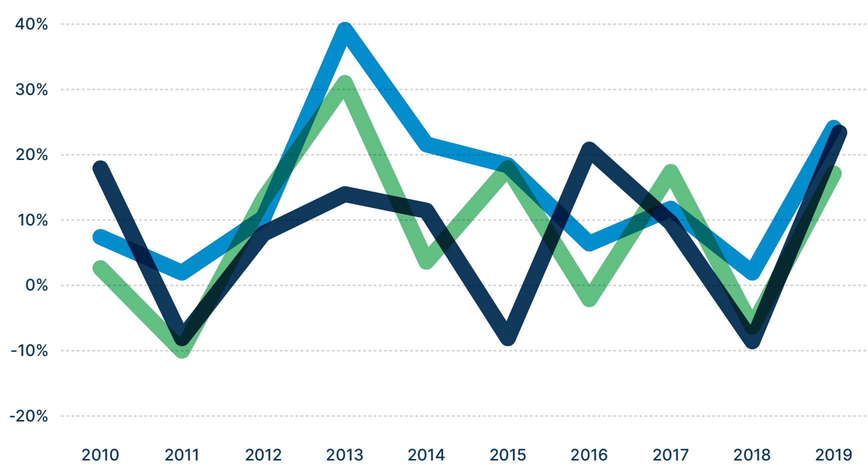
6 Universe bonds are marketable investment-grade (rated BBB or higher) corporate and government bonds.



Equity markets saw positive returns in 2019, with major market indices hitting their all-time highest price levels and their best annual gains since 2013[7].

Annual Equity Index Returns:

- S&P/TSX Composite
- S&P 500 ($CAD)
- MSCI EAFE ($CAD)



5 Fixed income return data from the Bank of Canada, https://www.bankofcanada.ca/rates/interest-rates and Aubin Consulting Actuary Inc., http://www.aubinactuaireconseil.ca
7 Equity data from Thomson Reuters Eikon for 2010 – 2019; retrieved on August 20, 2020 from https://eikon.thomsonreuters.com/index.html.

The Canadian equity S&P/TSX composite index returned 22.9 per cent in 2019 due to the scale up of high-quality growth companies in the technology sector and the lifting of restrictions on drilling new oil wells in Alberta, which positively impacted the energy sector. The U.S. equity S&P 500 index returned 25.2 per cent when expressed in Canadian dollars due to high returns in the technology sector and positive announcements around U.S. – China trade. The MSCI EAFE index tracking international equities returned 16.2 per cent due to a lower risk of a hard Brexit and the European Central Bank's new quantitative easing measures to stimulate the euro zone economy.

Selected Asset Class Returns

Stock Returns[8]	**2019**	**2018**	**2017**
Canadian Equities: S&P TSX Composite	22.9%	-8.9%	9.1%
U.S. Equities: S&P 500 (Canadian Dollars)	25.2%	1.7%	11.8%
Non-North American Equities: MSCI – EAFE (Canadian Dollars)	16.2%	-6.5%	17.1%
Fixed-Income Returns[9]			
FTSE Canada 91-day T-bills	1.6%	1.4%	0.5%
FTSE Canada Universe Bond	7.2%	1.4%	2.5%
FTSE Canada Long Bonds	13.5%	0.3%	7.0%

The performance of the markets was reflected in the growth of plan assets as well as in the funded status of plans. Total assets grew from $161 billion at December 2018 to $178 billion at December 31, 2019. Both the going concern and solvency funded status of plans in B.C. also improved.

8 Aubin Consulting Actuary Inc., http://www.aubinactuaireconseil.ca
9 Bank of Canada, https://www.bankofcanada.ca/rates/interest-rates

“the COVID-19 pandemic affected pension plan asset values because of their exposure to the markets

The financial turmoil of the first half of 2020 caused by the COVID-19 pandemic affected pension plan asset values because of their exposure to the markets. The TSX fell from 17,063 at December 31, 2019 to 15,515 at June 30, 2020[10]. Regulators across Canada took steps to provide relief to plans to help them weather the storm. Transfers out of plans were in some cases suspended to avoid cashflow stress. While the markets have regained some of the losses during the year, regulators are advising administrators to stress test their plans under both plausible and severe scenarios to better understand the implications on their pension plans. This is a reminder of the importance for plan fiduciaries to understand the key risks facing their plans and to have a strategy in place for mitigating and responding to negative events. For plans looking to revise their process, a great resource is the UK's guidance[11] on how to set up a framework for monitoring a plan's investments. It includes the following advice:

- Prioritize monitoring the factors with greatest impact on your plan's investments and funding level.
- Insist on clearly presented information and the data you require to monitor those key drivers, so that you can make effective, well-informed decisions.
- Monitor your investment policy. Assess whether investment returns and risk levels are within acceptable ranges and whether your objectives and any triggers remain appropriate.
- Review the performance of the pension fund and the investment managers, net of fees, over the short term and long term.

COVID-19 Pandemic

A global pandemic of a coronavirus, COVID-19, started in late 2019. It continues to have far-reaching social and economic consequences. Following public health orders to physically distance from others, plan administrators worked remotely away from their offices in the spring of 2020, sometimes with limited access to documents. In order to address some of the challenges faced by plan administrators and in response to requests by administrators, the Superintendent introduced certain relief measures. These included extending the deadlines for certain regulated reports as well as communications to members. Details of these relief measures can be found in Bulletin PENS-20-002. Measures included the acceptance of electronic copies of documents. Furthermore, prescribed forms which required a witness could be completed using technology, such as video conferencing, as per the Electronic Transaction Act, but individuals were encouraged to seek legal advice on this.

The Superintendent issued Bulletin PENS 20-004 to address questions and concerns raised by stakeholders as a result of COVID-19. Topics covered by this bulletin included how to request adjustments to contribution levels. Contributions to DC plans may be reduced if the plan is amended. Only four DC plans have been amended in 2020 to reduce required contributions levels. It is expected that some members' contributions in 2020 would be reduced as a result of a reduction in earnings, because of the disruptions in their businesses caused by the pandemic.

10 Yahoo Finance, S&P/TSX Composite index history, https://finance.yahoo.com/quote/%5EGSPTSE/history/
11 The Pensions Regulator (UK), Monitoring DB investments, updated September 2019 https://www.thepensionsregulator.gov.uk/en/document-library/regulatory-guidance/db-investment/monitoring-db-investments

One DC plan reported receiving no contributions in July 2020, as all plan members were laid off. On the other hand, certain plan sponsors asked if contribution levels could be maintained at prior levels despite temporary salary reductions. This is permissible if the plan terms include provisions that allow for deemed earnings for continued accruals during a temporary leave of absence or eligible period of reduced pay, subject to the Income Tax Regulations.

Contribution levels to benefit formula plans may not be adjusted unless an application for funding relief is filed and approved. There were far more inquiries about potential relief than actual requests for relief.

Several multi-employer plans requested an extension for preparing termination of active membership statements; this was granted. All other requests that involved member communications deadlines were addressed in Bulletin PENS-20-002.

Section 80 of the PBSR provides that a plan may suspend commuted value payments where, in the opinion of the plan administrator, such payments would materially impair the solvency of the plan. Six single-employer DB plans and one multi-employer plan temporarily suspended making lump sum payments to terminated members. Based on reporting from those plans, approximately 65 members in total were impacted by this temporary suspension of commuted value payments to date this year. By October 2020, most of those plans had rescinded the suspension of commuted value payments.

5. Statistics

PLANS AND MEMBERSHIP

The total number of pension plans registered in B.C. declined from 663 in 2018 to 647 in 2019, due to plan terminations, mergers, and transfers to other jurisdictions. Membership, however, increased from 1,118,000 in 2018 to 1,159,000 in 2019, an increase of about 41,000. The four public-sector plans (College Pension Plan, Municipal Pension Plan, Public Service Pension Plan, Teachers' Pension Plan) contributed to 59% of the overall increase in membership, as they gained 24,000 members.

While membership in DB plans has been declining globally[12], in B.C. membership increased from 779,000 in 2018 to 807,000 in 2019, an increase of 27,000 members.

Defined Benefit Plan Membership on December 31, 2019

Size of Plan	Number of Plans	Members
Fewer than 1,000	107	20,000
1,000-4,999	25	50,000
5,000-9,999	5	36,000
10,000 or more	7	701,000
Total	**144**	**807,000**

Membership in TB plans increased by 6,000 over the 2018 count despite the fact that one plan merged into a larger plan registered in Alberta in 2019, decreasing the number of TB plans registered in B.C. by one.

Target Benefit Plan Membership on December 31, 2019

Size of Plan	Number of Plans	Members
Fewer than 1,000	8	5,000
1,000-4,999	16	37,000
5,000-9,999	6	41,000
10,000 or more	6	179,000
Total	**36**	**262,000**

12 OECD, Pension Markets in Focus 2019, pages 35–36

Similar to the trend seen for benefit formula plans, the number of DC plans shrank by 13 while the membership rose by 8,000 in the year, an increase of 9.6 per cent. Unlike DB plans, most DC plans remain small, with fewer than 100 members in a typical plan.

Defined Contribution Plan Membership on December 31, 2019

Size of Plan	Number of Plans	Members
Fewer than 100	347	11,000
100-499	91	19,000
500-999	13	9,000
1,000 or more	16	52,000
Total	**467**	**91,000**

The DC membership table refers to membership in plans specifically set up as DC plans and does not include the 19,600 members in DB plans who are currently contributing to a defined contribution component. They are included in the count of members in DB plans. In coming years, the annual information return will be enhanced to collect more specific data from each plan on the number of actives accruing benefits under DC, DB or TB provisions.

ASSETS

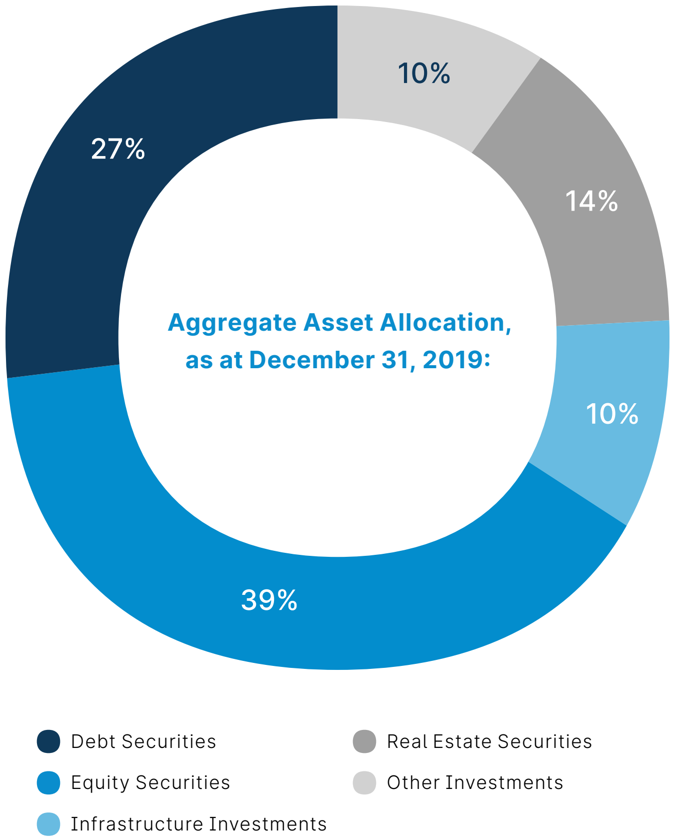
Total assets in B.C.-registered pension plans grew from $161.4 billion in 2018 to $177.8 billion in 2019, an increase of 16.4 billion or 10.2 per cent compared to the previous year, boosted both by the market boom discussed above as well as by contributions. Total assets in DC plans grew by $1.1 billion over the previous year, or 14.1 per cent, TB plan assets rose by 11.0 per cent and DB plan assets rose by 9.9 per cent. The four public sector pension plans hold 82 per cent of total DB assets and 78 per cent of members in B.C.-registered DB plans.

Total Assets of Registered Pension Plans as at December 31

Plan Type	2019 ($ Billion)	2018 ($ Billion)
Defined Benefit Component	155.8	141.8
Target Benefit Component	13.1	11.8
Defined Contribution Component	8.9	7.8
Total Assets	**177.8**	**161.4**

Pension funds that have assets of less than $2.5 million, plans with less than 50 total members (both active and former members), and DC plans are not required to file a breakdown of asset mix information. Hence, the asset allocation data in the following section excludes those plans.

As indicated in our 2018 Annual Report, there continues to be a shift from publicly listed equities in favour of higher allocations to alternative asset classes such as private equity and infrastructure.



The allocation to the infrastructure asset class has risen from $13.8 billion two years earlier, in 2017, to $17.3 billion in 2019. The asset category that reported the highest increase was the category classified as 'other investments' which saw an increase from $9.5 billion in 2017 to $15.9 billion in 2019, an increase of $6.4 billion over the two years. These reported 'other investments' are mainly in private equity placements and are used primarily by the largest plans in terms of assets. Cash allocations also increased, but it is unclear what was the driver.

Market Value of Total Assets as at December 31

Asset Category	2019 ($ Million)	2018 ($ Million)
Cash & Short-term Investments	659	533
Debt Securities	45,700	39,013
Equity Securities	64,823	62,584
Infrastructure	17,281	15,283
Real Estate	23,812	$22,221
Other Investments	15,889	12,974
Total[13]	**168,165**	**152,610**

13 This excludes smaller plans that are not required to file a breakdown of asset mix information, i.e. assets of less than $2.5 million, DC only, or less than 50 members (both active and former members).

CONTRIBUTIONS TO PENSION PLANS

DC plans

Contributions to defined contribution plans increased to $529 million, up from $493 million during 2018. As was the case in the prior year, employers contributed 64 per cent of the total paid into DC plans in 2019. Plan members made $158 million in required contributions and $33 million in member voluntary contributions, a decrease of $755,000 from 2018 voluntary contributions.

DB and TB plans

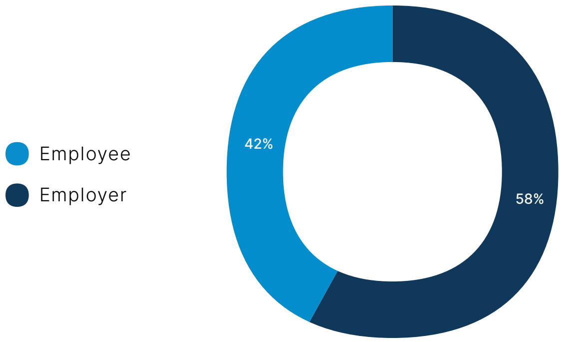
The cost of future pension benefit accruals increased from $4.3 billion in 2018 to $4.8 billion in 2019, an increase of $500 million. This would have been influenced by the increase in membership for DB plans during the period, and possibly also by an increase in earnings for some members.

Benefit Formula Plan Contributions, as at December 31

Contribution Category	2019 ($ Thousands)	2018 ($ Thousands)
Employee Required Contributions	2,058,824	1,837,509
Employee Unfunded Liability Payments	839	162,992
Employee Solvency Deficiency Payments[14]	2,973	3,315
Employer Normal Cost	2,740,560	2,473,417
Employer Unfunded Liability Payments	11,809	224,813
Employer Solvency Deficiency Payments[14]	87,305	94,324
Total Employer and Employee Contributions	**4,902,310**	**4,796,370**

The proportion of contributions made to fund legacy benefits continues to fall. There was a dramatic reduction in payments made to amortize unfunded liabilities, from $387.8 million in 2018 to $12.6 million in 2019. This was a result of most plans being fully funded on a going concern basis. This is a trend that carried over from 2018, which also saw a significant reduction in payments to amortize unfunded liabilities compared to the previous year. There was a less dramatic reduction in payments to amortize solvency deficiencies, which declined by 7.5 per cent from the prior year levels.

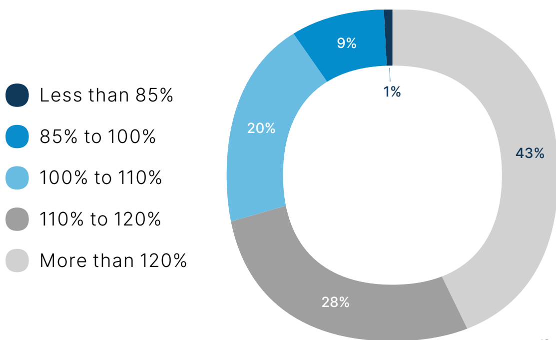
14 Transfer deficiency contributions are not included in the solvency payment amounts.



2019 Benefit Formula Plan Contributions:

Total contributions to benefit formula plans did not increase substantially from 2018 to 2019, rising from $4.8 billion in 2018 to $4.9 billion in 2019.

FUNDED POSITION OF BENEFIT FORMULA PLANS



Distribution of Estimated Going Concern Funded Ratios for Defined Benefit Plans, as at December 31, 2019:

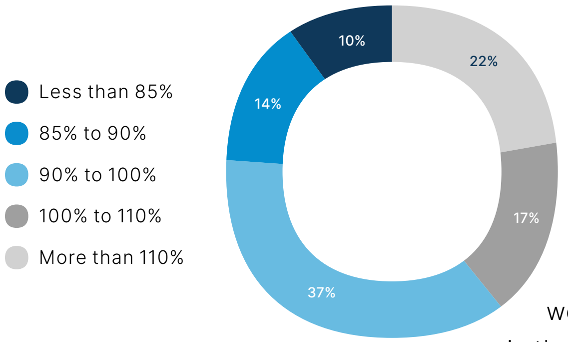
The following funding analysis is based on the projected[15] funding position at the end of 2019 of all benefit formula plans. The figures do not include public sector plans.

Given the performance of the markets in 2019, the funded status of TB and DB plans improved, despite declining interest rates which increase the measure of liabilities. The projections suggest that 90 per cent of DB plans and 78 per cent of TB plans were fully funded on a going-concern basis as at December 31, 2019.

The tables on page 19 show the projected funding figures for benefit formula plans (DB and TB plans combined) at December 31, 2018, and December 31, 2019. They exclude data from the four public sector plans.

Nine plan administrators are using a letter of credit to satisfy some or all of their solvency deficiency funding requirements, down from 15 last year since six of those plans are now at least 85 per cent funded on a solvency basis. Plan administrators also are permitted under section 54 of the *Pension Benefits Standards Act* (PBSA) to establish a solvency reserve account, which is a sub-account of the pension fund into which the solvency deficiency payments to the plan may be deposited. Accessible solvency excess may be withdrawn from a solvency reserve account under the circumstances set out in sections 61 and 62 of the PBSR. Currently, 24 plans have made contributions to solvency reserve accounts.

15 Based on the actual funding position if a valuation report at the indicated date was filed.



Distribution of Estimated Solvency Ratios for Defined Benefit Plans, as at December 31, 2019

Based on projected funded status, 90 per cent of DB plans were at least 85 per cent funded on a solvency basis at the end of the year, and 39 per cent were fully funded on a solvency basis. As discussed in the above section on legislation, solvency deficiency payments are now required only when a plan has a solvency ratio below 85 per cent. Hence, solvency special payments will be required for approximately 10 per cent of DB plans registered in B.C. after December 31, 2019 as a result of the change in solvency funding requirements, once they file an updated actuarial valuation report.

Aggregate Funded Ratio as at December 31, 2019

2019	Going Concern Valuation ($ Million)	Solvency Valuation ($ Million)
Total Assets	38,916	39,693
Total Liabilities	33,858	40,219
Aggregate Funding Balance	5,058	-526
Total Funding Balance for Plans in Deficit	-261	-3,386
Total Funding Balance for Plans in Surplus	5,319	2,859
Aggregate Funding Ratio	115%	99%

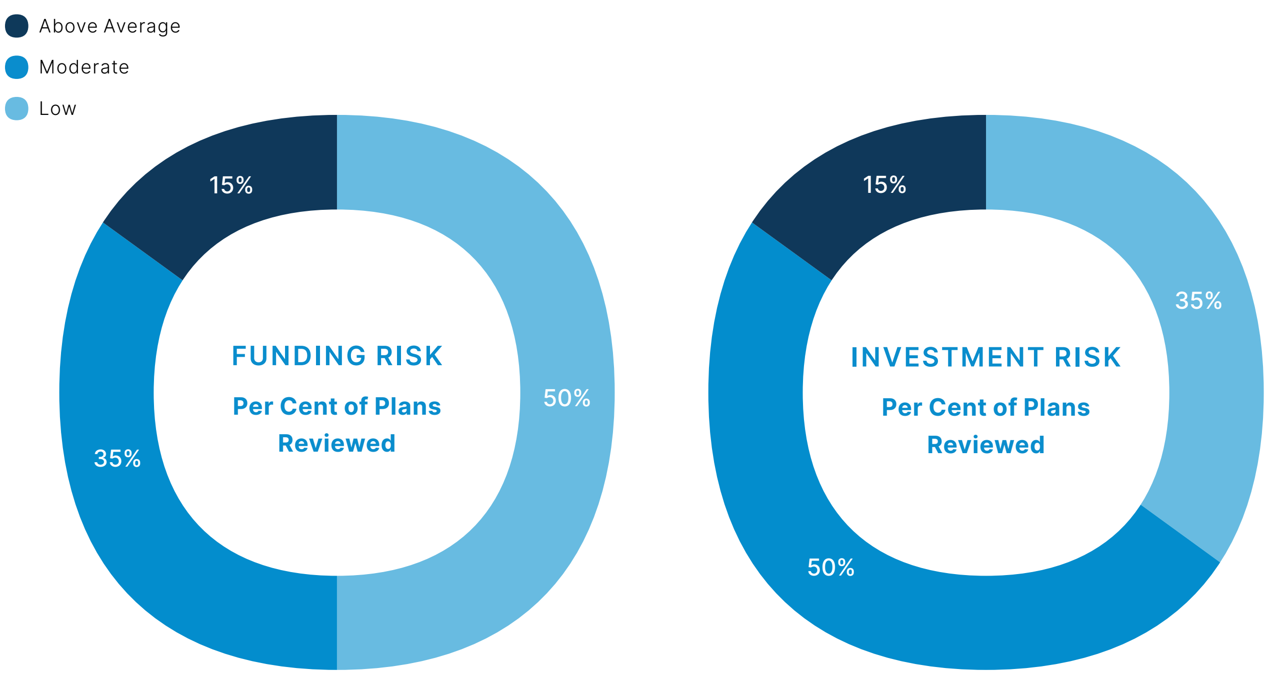
Aggregate Funded Ratio as at December 31, 2018

2018	Going Concern Valuation ($ Million)	Solvency Valuation ($ Million)
Total Assets	34,282	35,781
Total Liabilities	29,732	38,090
Aggregate Funding Balance	4,550	-2,309
Total Funding Balance for Plans in Deficit	-916	-4,167
Total Funding Balance for Plans in Surplus	5,467	1,858
Aggregate Funding Ratio	115%	94%

6. Risk-Based Supervision

BCFSA's Pension Department has developed a risk-based framework to be applied to all plans that have benefit formula provisions. The framework helps team members identify inappropriate or unsafe business practices and, as required, intervene with plan administrators to address the identified risks. As the next step, team members are in the process of developing an on-site examination framework for benefit formula pension plans and a more structured review process for DC plans.

In 2019, six benefit formula plans were reviewed in detail. As a result of the reviews, half of those plans were deemed to require further monitoring, while the other half will receive additional education on best practices and appropriate procedures to meet compliance requirements. Better documentation of governance practices is required for one of the six plans. Analysis of those plans' funding and investments found risk levels in the proportions shown in the charts below.



Funding risk levels are broadly defined as follows:[16]

- **Low** – The plan is fully funded on a going concern basis and the actuarial assumptions used in the valuation are reasonable. There is a reasonable funding margin to lessen the impact of economic and demographic risks on the plan's ability to meet the funding requirements under the PBSR. In the case of a TB plan, the plan has a robust funding/benefit policy with a clear policy ladder of funding triggers and benefit actions.
- **Moderate** – The plan meets the prescribed funding requirements, and the going concern assumptions in aggregate appear reasonable. However, there is little or no funding margin to absorb material funding risks, in both short and long term.
- **Above Average** – While the plan meets the prescribed funding requirements, the plan is significantly underfunded, and the overall funding basis is weak. In particular, the discount rate assumption may be significantly higher than the benchmark discount rate or rate prescribed under the PBSR. In the case of a TB plan, there is a lack of clear policy ladder in the plan's funding/benefit policy.
- **High** – The plan is significantly underfunded and has had difficulty complying with the minimum funding requirements. There has been a lack of response to funding shortfall due to ineffective risk management. The administrator has resisted making significant changes in plan design to make the plan more affordable and sustainable over the long term. The plan may also have experienced a continuing decline in active membership, which would have put a severe strain on the plans' ability to meet the funding requirements under the PBSR.

Investment risk levels are broadly defined as follows:

- **Low** – The plan's asset mix policy is consistent with the nature of the liabilities and the maturity of the plan. The plan has consistently achieved the return expectations as specified in the policy, and it incorporates a reasonable margin in setting the discount rate assumption.
- **Moderate** – The plan's asset mix policy allows for a moderate exposure to return-seeking investments (e.g., equities), and the level of risk is acceptable. The plan may be relatively immature with a small number of retirees.
- **Above Average** – The plan is relatively mature and the plan's asset mix policy allows for a substantial exposure to return-seeking investments, thereby exposing the plan to a material assets/liabilities mismatch. There might be excessive exposure to market, credit and liquidity risks in the investment portfolio as well.
- **High** – The plan adopts an aggressive investment strategy with a very high exposure to return-seeking assets, in order to manage the level of funding requirements. This would pose a material risk to the stability of contributions and security of members' benefits. For TB plans the reviewer must consider whether the investment strategy introduces higher risk for achieving the target benefit set for the plan, given the level of contributions committed to by the sponsor. An aggressive investment strategy may expose members to a higher probability of benefit reductions due to an adverse performance.

16 These broad definitions are for guidance only. The reviewer must use best judgment to describe the severity or otherwise of the risk, based on all 4 risk types. The reviewer will be required to provide facts to support their assessment.

7. Revised Commuted Values Standards

The Actuarial Standards Board released the Final Standards – Amendments to Section 3500 of the Practice-Specific Standards for Pension Plans – Pension Commuted Values (Revised CV Standards) on January 24, 2020. Revisions were made to the basis for calculating commuted values (CVs) for defined benefit pension plans. Furthermore, a new subsection 3570 was added, which provides a different basis for calculating CVs under target pension arrangements. The effective date of the Revised CV Standards is December 1, 2020.

Bulletin PENS 20-003 was published to provide the Superintendent's interpretation of the Revised CV Standards based on the legislation requirements in B.C.

Specifically,

- For pension plans with a defined benefit provision, CVs must be calculated in accordance with section 3500 of the Revised CV Standards, as provided under section 9(1) of the PBSR.
- For pension plans with a target benefit provision, the Superintendent does not expect any changes in the CVs calculation methods as a result of the release of the Revised CV Standards, as provided under section 9(2) of the PBSR.
- Further, the Superintendent expects that subsection 3570 of the Revised CV Standards may not be used to determine CVs for a negotiated cost plan or a jointly sponsored plan that does not contain a target benefit provision, although these plans may be construed as meeting the definition of Target Pension Arrangements as provided under paragraph 3570.01 of the Revised CV Standards.

For more information about the Revised CV Standards, please refer to Canadian Institute of Actuaries' resources website on Calculating Commuted Values and/or the Frequently Asked Questions (FAQs) published by FTSE Russell[17].

17 FTSE Russell, FAQ on Commuted Values, September 2020
https://content.ftserussell.com/sites/default/files/commutedvaluesfaqseptember2020.pdf

8. Operational Plan

The current strategic plan for BCFSA is summarized below. Current major projects for the pension team include developing frameworks for the supervision of defined contribution pension plans as well as for conducting on-site plan examinations. Across BCFSA, an overarching risk-based framework is also in development. At the end of year, we will be a higher-functioning organization with a defined model for regulating B.C.'s evolving financial services sector.

Culture

Communication, Collaboration, Diversity/Inclusion/Equity

Strategic Imperatives

Vision and Values	Our Team	Regulatory Accountabilities	External Engagement	Internal Operations
We have defined our purpose, vision and values	We have invested in our people and are better-positioned to attract, retain and develop talent	We have defined our regulatory approach	We are visibly engaged with our external stakeholders	We are standardizing and modernizing our internal processes and procedures

Goals

Vision and Values	Our Team	Regulatory Accountabilities	External Engagement	Internal Operations
Our purpose, vision and values are defined We have communicated our purpose, vision and values Our purpose, vision and values are being reflected in our practices and behaviours	We have implemented a leadership development program We have enhanced our people practices starting with learning and development and performance management Our people leaders are better positioned to execute on all relevant people practices	We have defined and communicated our one-year regulatory priorities Our supervisory frameworks and practices have been updated Our rule making process has been established	We have established an organization-wide stakeholder engagement strategy that reflects our purpose, vision and values We have invested internally to ensure the appropriate level of focus and capacity to support our strategy Stakeholder engagement is underway	We have a clear strategy to standardize and modernize our internal processes, procedures and tools We have increased our use of quantitative analytics We have increased the use of KPIs as a tool to measure corporate performance

Within BCFSA, the Pension Department is responsible for administration and enforcement of the PBSA and associated regulation. The PBSA applies to all pension plans providing benefits to persons employed in British Columbia.

The objective of the Superintendent of Pensions is to enhance the retirement income security of British Columbians by:

- Promoting the security of pension plan benefits and rights provided to British Columbia pension plan members by the PBSA
- Ensuring that British Columbia pension plans comply with the PBSA, and meet the minimum standards of financial health required
- Assessing the ongoing effectiveness of the legislation and recommending improvements to the PBSA
- Working toward administrative harmonization with other provinces and the federal government
- Keeping the regulatory burden on pension plans and the cost of pension plan supervision to a minimum

TECHNOLOGY

Improvements to the webforms for filing annual data and actuarial data are ongoing. Recently, the login process was updated to enhance data security, and in the fall of 2020 a further update was released. Furthermore, the user experience is currently undergoing an extensive redesign. Within the next two years, a more user-friendly portal will replace the current system and allow for the filing and uploading of plan documents, as well as access to key data and communications.

STAKEHOLDER ENGAGEMENT

Provision for Adverse Deviation Industry Working Group

The Superintendent of Pensions has established an industry working group to explore changes to the prescribed calculation method of PfAD's for TB plans in British Columbia.

The PfAD is an additional contribution requirement that acts as a buffer; it is intended to add security to members' pension benefits by boosting funding beyond the estimated minimum amount needed to make the pension payments over the long term. The method for calculating PfADs for TB pension plans differs from that for DB plans. In the current economic environment, PfADs are higher for TB plans than for DB plans and certain stakeholders argue that the result can be onerous contribution amounts that may be larger than the contribution levels that have been negotiated for a plan. This may create inter-generational inequity as plans may be required to implement reductions to accrued benefits, including to pensions in pay, and/or benefit accrual levels, to cover the cost. As PfAD calculations are based on interest rates, PfAD levels are volatile, making it difficult for plans with fixed contribution levels to adjust to volatile funding requirements.

The working group includes staff of the B.C. and Alberta Superintendents of Pensions, the Financial and Corporate Sector Policy Branch of the Government of B.C., individuals with technical pension expertise, and stakeholder representatives. Their mandate includes consolidating evidence, setting out objectives for PfADS, and developing recommendations that may result in legislative changes.

Public Forums

The Deputy Superintendent of Pensions, Michael Peters, spoke at numerous industry events over the course of the year. Events included presentations to the Canadian Pension and Benefits Institute and the Northwinds Professional Institute. Last November, at the International Foundation of Employee Benefit Plans Annual Canadian Conference, he co-presented with the New Brunswick Superintendent on governance issues, with a focus on the B.C. requirement for a governance policy and alignment with CAPSA principles as set out in the CAPSA Guideline No. 4. Secondly, he co-presented with the New Brunswick Superintendent and a private-sector actuary to provide a cross-country review of the status of TB plans, as well as an in-depth overview of the experience in British Columbia since TB plans were introduced in the legislation in 2015.

Ongoing engagement with industry and the public remains an integral part of the strategic plan of BCFSA.

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BCFSA bulletins are found here:

bcfsa.ca/index.aspx?p=pension_plans/bulletins

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