Report on Pension Plans

Registered in British Columbia

OCTOBER 2022

BCFSA

CLASSIFIED: PUBLIC

Contents

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1. Overview

This report provides an overview of recent data from pension plans registered in British Columbia. Most B.C. registered plans have provisions categorized as defined benefit ("DB"), defined contribution ("DC"), or target benefit ("TB"). Some sections of this report are subdivided to cover those categories separately. Prepared by BC Financial Services Authority ("BCFSA"), the report also provides an opportunity to update stakeholders on current initiatives the regulator is undertaking.

2. About BCFSA

BCFSA is a Crown agency responsible for the supervision and regulation of the financial service sector, including:

- Credit Unions
- Insurance Companies
- Mortgage Brokers
- Pension Plans
- Real Estate Services
- Real Estate Development Marketing
- Trust Companies

BCFSA regulates and oversees important financial transactions in British Columbia to ensure fairness, legality, and the prosperity of consumers and the province. We provide the information and guidance necessary to enable industry participants to comply with legislative requirements and best practices. BCFSA is also accountable for administering B.C.'s Credit Union Deposit Insurance Corporation.

Within BCFSA, the Pensions Department oversees the administration and enforcement of the *Pension Benefits Standards Act* ("PBSA") and the *Pension Benefits Standards Regulation* ("PBSR"). The PBSA and PBSR apply to individuals employed in B.C., with the exception of those in federally regulated industries who are covered under federal pension legislation. B.C. residents who participate in pension plans registered in other provinces are also protected under the PBSA and PBSR.

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

- Promoting the security of pension plan benefits and rights provided to B.C. pension plan members by the PBSA
- Ensuring that B.C. 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

Best Wishes to Michael Peters

Michael Peters, senior advisor to the CEO, retired on August 12, 2022. He served as the vice-president and deputy superintendent of Pensions prior to the 2021 integration of BCFSA and the Real Estate Council of BC.

Anybody who has had the pleasure of working with Michael knows that he carries a wealth of knowledge coming from his 34 years of experience. From dealing with significant plan issues to his work in rewriting the PBSA, Michael's contributions will impact pension plan stakeholders provincewide. He has also led by example as a collaborative, solutions-oriented, and principled leader.

One of the recent highlights of Michael's career was his leadership role in the development of the Agreement Respecting Multi-jurisdictional Pension Plans. This instrumental agreement, which was more than 20 years in the making, will have a lasting impact on the administration of pension plans with members in more than one jurisdiction across Canada.

In his retirement, Michael plans to continue his education, volunteer or seek board memberships for non-profit and charitable organisations, and to travel.

3. Economic Overview

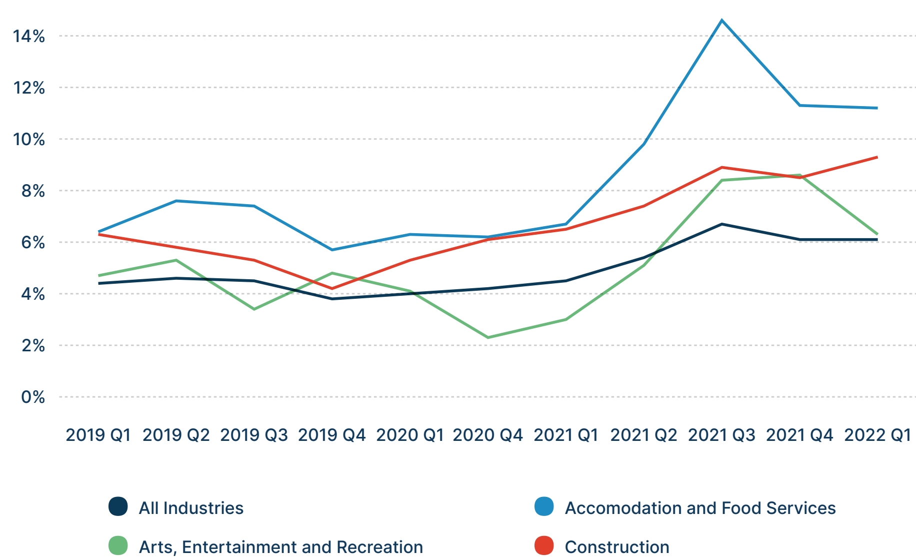
ECONOMIC INDICATORS

This report summarizes recently filed pension plan data in the context of economic conditions in 2021.

The state of the economy and market conditions are relevant to pension plans in that they impact pension fund investment returns, the financial strength of plan sponsors, and for many plans, contribution levels into the plans.

Supported by a strong labour market, population growth, and infrastructure projects, B.C.'s economy saw solid growth in 2021 as the impact of the COVID-19 pandemic ebbed in most sectors. Resource industries were boosted by spiking commodity prices, including for softwood lumber, natural gas, copper, and coal. Businesses, particularly those in the sectors that were hardest hit by COVID-19 restrictions, started to report labour shortages as demand picked up. Inflation started to rise.

B.C. Job Vacancy Rate – Selected Industries

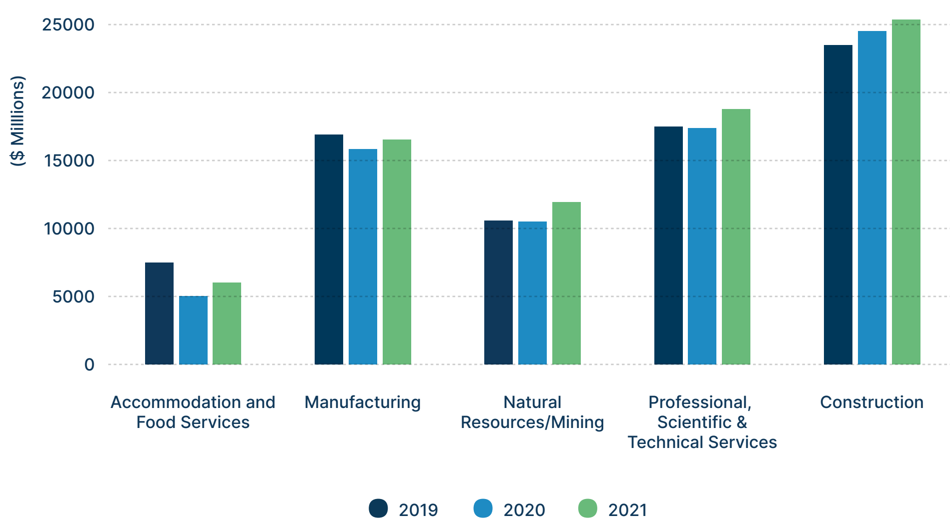


Source: Statistics Canada

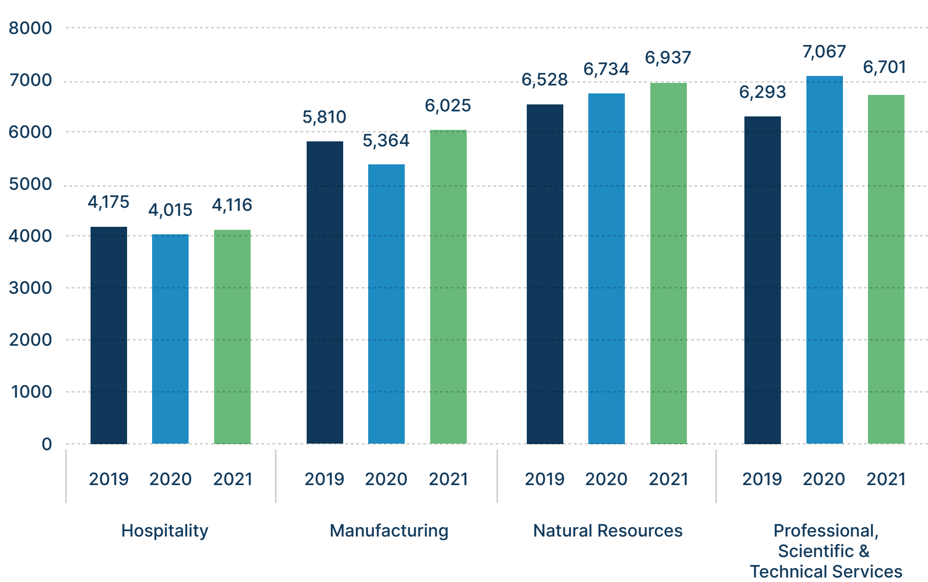
Data for the second and third quarters of 2020 are unavailable due to some Statistics Canada operations being temporarily suspended during the COVID-19 pandemic.

A recovery in global demand and the higher commodity prices boosted B.C. exports. That economic growth was reflected in the rising level of contributions to DC plans.

B.C.'s GDP from Selected Sectors



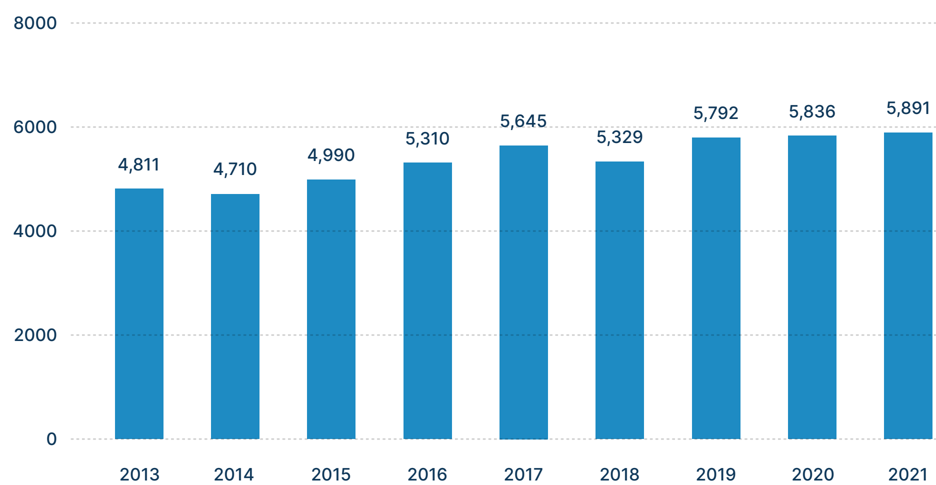
Average DC Contributions per Active Member ($)



CONTRIBUTIONS

In line with the overall economic growth, average contributions per DC member in the year increased. Combined employee and employer contributions rose to an average of $5,891 per active member.

Average DC Contributions per Active Member ($)

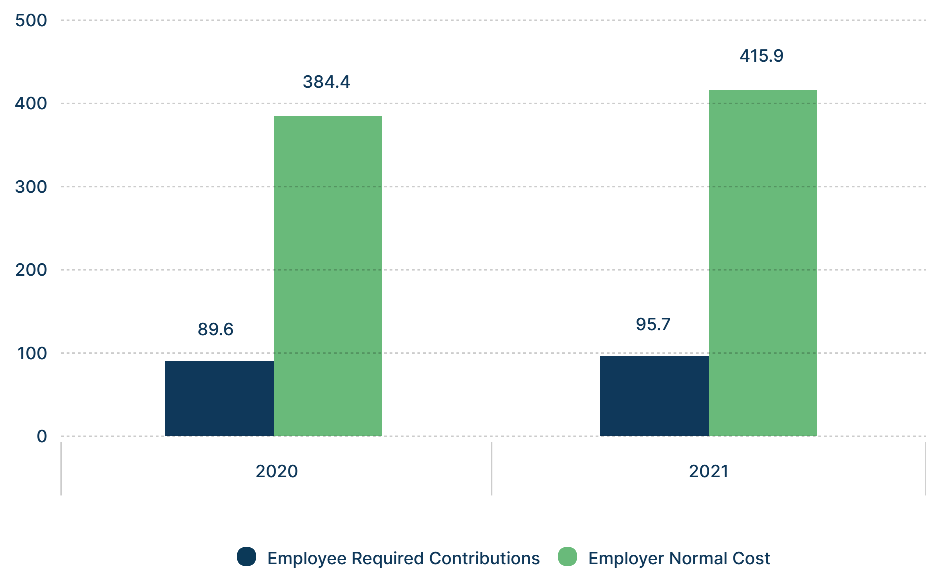


However, total DC contributions decreased, in part because of lower membership. By the end of 2021, the number of DC plans declined by 1 per cent (4 plans) and membership declined by 6.5 per cent (6,000 members). Some of those employees are now members of DC plans in other provinces, some are participating in RRSPs, and over 500 are now in a TB plan as a result of a plan design change.

Contributions to DC Plans ($Millions)			
Contribution Category	2019	2020	2021
Member Required	$157.8	$154.7	$152.1
Member Voluntary	$33.5	$33.3	$33.2
Employer	$337.3	$331.4	$326.5
Total	$528.7	$519.4	$511.8

Contributions into TB plans increased in the year. The number of active members rose by 1.5 per cent while employer normal cost contributions rose by 7.8 per cent, suggesting an increase in hours worked by employees and/or contribution rates.

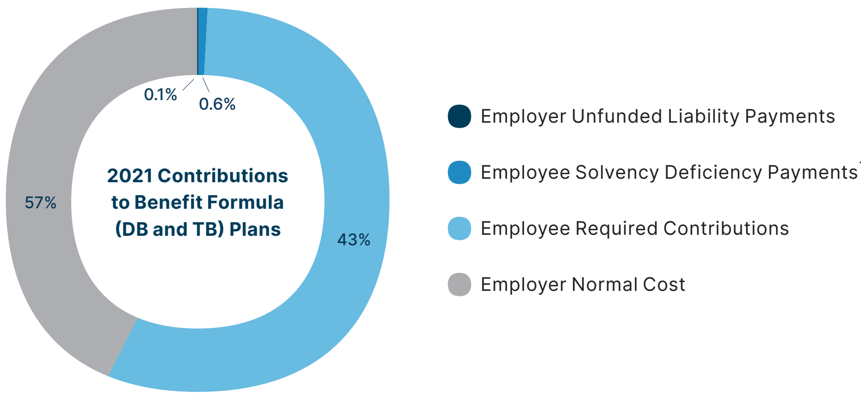
TB Contributions ($Millions)



Target Benefit Plan Characteristics

- The amount of target pension payable to an employee is set by a formula
- Benefits may be reduced to meet funding requirements
- Employers contributions are limited to an agreed upon amount
- Depending on plan design, employees may contribute

Considering all benefit formula plans, total contributions to DB and TB plans rose four per cent from $5.19 billion to $5.41 billion. Contributions to fund solvency deficits and unfunded liabilities have decreased significantly, comprising just 0.7 per cent of contributions made to DB and TB plans in 2021.

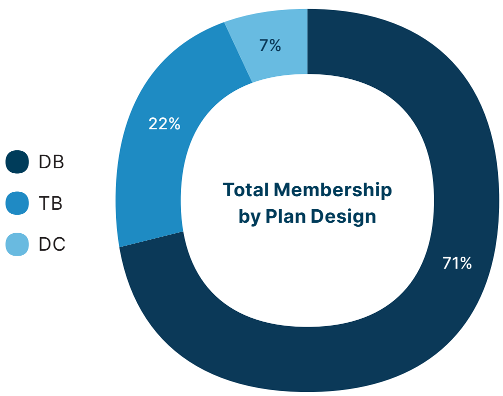


TB and DB Plan Contributions ($Millions)			
Contribution Category	2019	2020	2021
Employee Required Contributions	$2,058.8	$2,219.7	$2,307.0
Employee Unfunded Liability Payments	$0.8	$0.9	$1.0
Employee Solvency Deficiency Payments[1]	$3.0	$1.6	$1.3
Employer Normal Cost	$2,740.6	$2,921.5	$3,061.8
Employer Unfunded Liability Payments	$11.8	$5.4	$4.9
Employer Solvency Deficiency Payments[1]	$87.3	$42.1	$32.8
Total Employer and Employee Contributions	$4,902.3	$5,191.2	$5,408.8

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

4. Statistics

MEMBERSHIP



The number of members in B.C. registered pension plans increased by 2.3 per cent in 2021 to a total of 1,210,000 people, including pensioners and inactive members.

By a large margin, most British Columbians who have a pension plan in addition to the Canada Pension Plan are members of workplace DB pension plans.

While 108 DB plans have less than 1,000 members, 79 per cent of DB members are in the four largest pension plans and are mostly employed in healthcare, social services, municipalities, and schools. In a search for efficiencies, several smaller plans have merged into those quasi-public sector plans in recent years, including some DC plans, boosting membership in the largest pension plans.

Defined Benefit Plan Membership on December 31, 2021		
Plan Membership	Number of Plans	Total Members
Fewer than 1,000	108	17,000
1,000-4,999	24	51,000
5,000-9,999	5	36,000
10,000 or more	7	750,000
Total	144	854,000

Reflecting demographic and employment trends, less than half of members in DB plans are active members who are continuing to accrue pension benefits. The number of active DB members declined to 416,800 while the proportion of active DB members to total DB membership fell to 46 per cent in 2021, declining from 56 per cent in 2005.

The count of DB plans declined from 147 to 144 in the year. Three DB plans terminated in 2021 and members from a fourth plan merged into a larger plan. One DB plan transferred to B.C. jurisdiction from Ontario.

As noted above, DC membership fell in 2021. The largest DC membership declines were in pension plans for employees of hotels and casinos. Most DC plans are very small, although three per cent of them have over 1,000 members.

Defined Contribution Plan Membership on December 31, 2021		
Plan Membership	Number of Plans	Total Members
Fewer than 100	335	11,000
100-499	94	20,000
500-999	14	10,000
1000 or more	13	45,000
Total	456	86,000

One DC pension plan converted to TB plan design, so the number of TB plans increased from 35 to 36 in the year. Total TB membership, including pensioners and inactive members, rose 1.5 per cent.

Target Benefit Plan Membership on December 31, 2021		
Plan Membership	Number of Plans	Total Members
Fewer than 1,000	8	4,000
1,000-4,999	17	40,000
5,000-9,999	5	39,000
10,000 or more	6	185,000
Total	36	268,000

ASSETS

In addition to the increased contribution levels, pension funds were boosted in 2021 by sizable investment returns. Total assets in the 636 B.C. registered pension plans grew to $212.2 billion.

DB
$186.7 billion

144 DB plans
854,000 members

TB
$15.1 billion

36 TB plans
268,000 members

DC
$10.4 billion

456 DC plans
86,000 members

Pension funds with assets of less than $2.5 million, plans with less than 50 total members, and DC plans are not required to file a breakdown of cashflows nor asset mix information. Hence, the asset allocation and cashflow analysis in this report excludes those plans. For the 134 pension funds that submitted detailed financial information to BCFSA, the total reported investment gains in the year, at $22.4 billion, were four times larger than aggregate contributions to those plans. As membership ages, many plans are increasingly reliant on investment earnings over the years, rather than contributions, to maintain funded status.

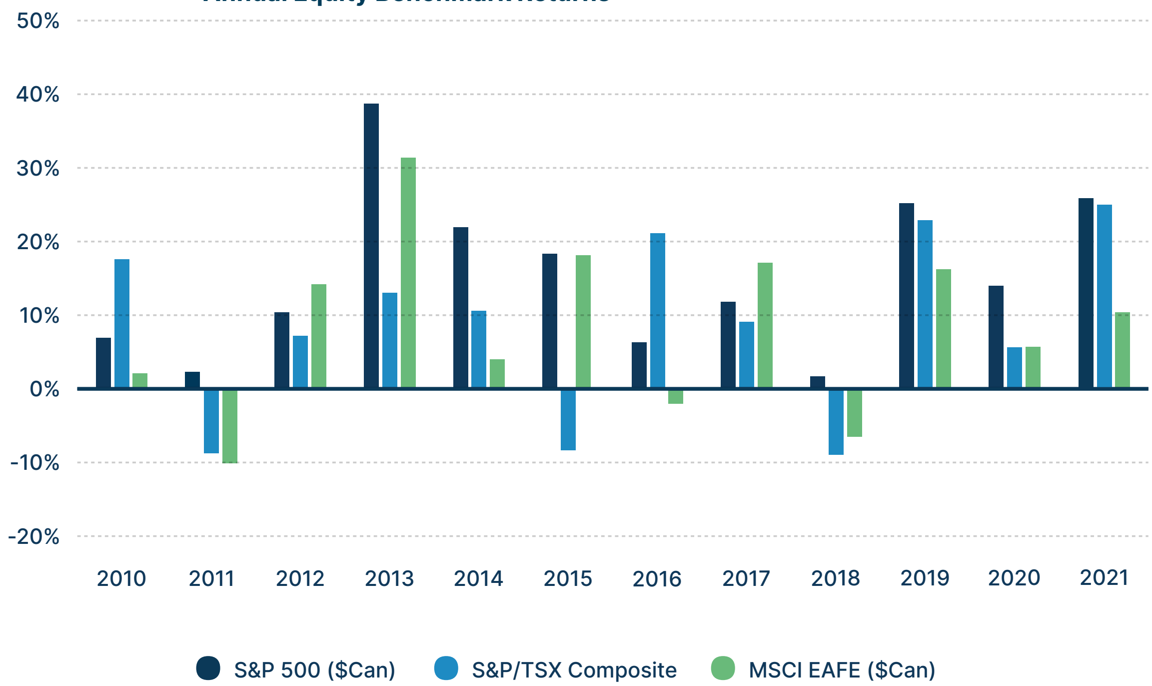
DB plans, which tend to be larger and have more diverse investments, posted greater investment gains than TB and DC plans. Net cashflows and investment earnings led to an 11 per cent increase in assets held in DB funds.

Total Assets on December 31 ($Billions)

Plan Type	2020	2021	% change
Defined Benefit Component	168.1	186.7	11%
Target Benefit Component	14.0	15.1	8%
Defined Contribution Component	9.5	10.4	9%
Total Assets	191.6	212.2	11%

The earnings came from several different types of investments including publicly listed stocks. The S&P TSX, an index tracking the performance of over 200 of the largest companies with publicly listed stock in Canada, was up 25 per cent in 2021. A similar index of US companies, the S&P 500 index, rose 26 per cent in the year when measured in Canadian dollars. Globally, the MSCI EAFE index rose 10 per cent.

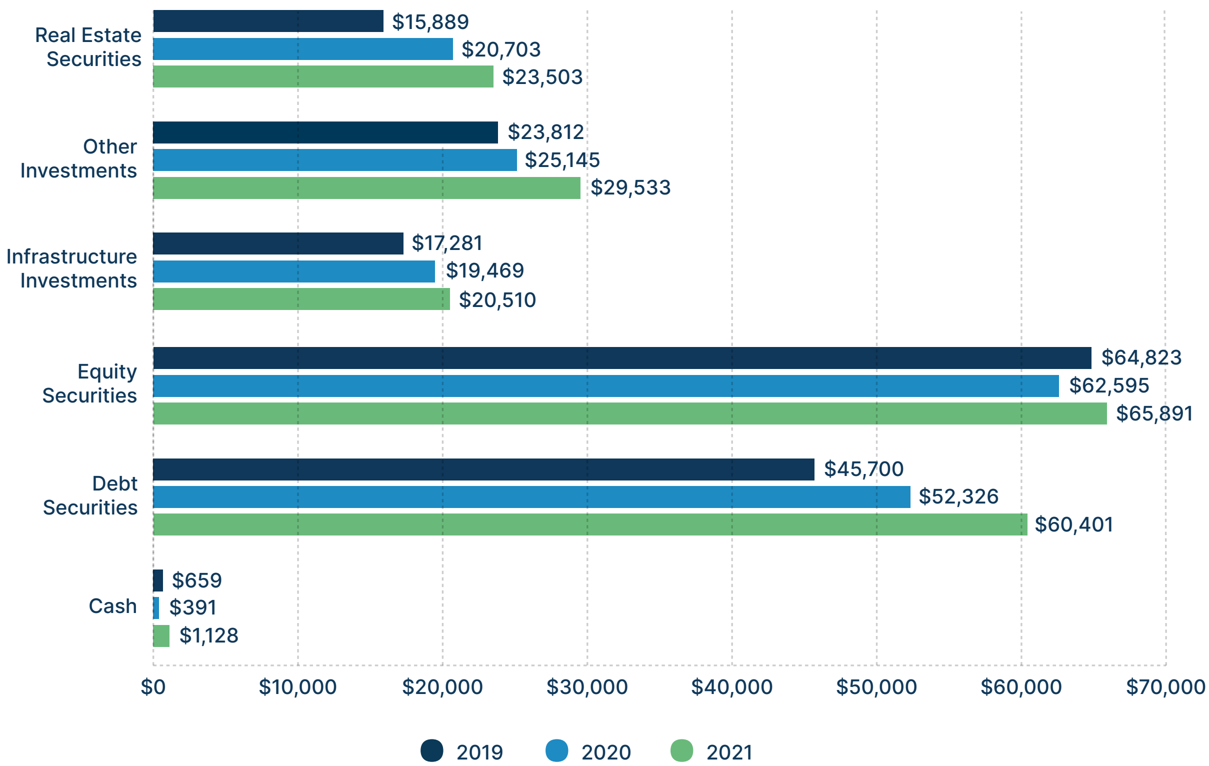
Annual Equity Benchmark Returns



Source for benchmark returns: Thomson Reuters Eikon, retrieved on 28 January 2022, https://eikon.thomsonreuters.com/index.html

The following chart shows how plans continue to hold stocks (equities) and bonds (debt securities) but also have increased their allocation to real estate and infrastructure investments such as apartment buildings, bridges, and hospitals.

Market Value of Agregate Assets on December 31 ($Millions)

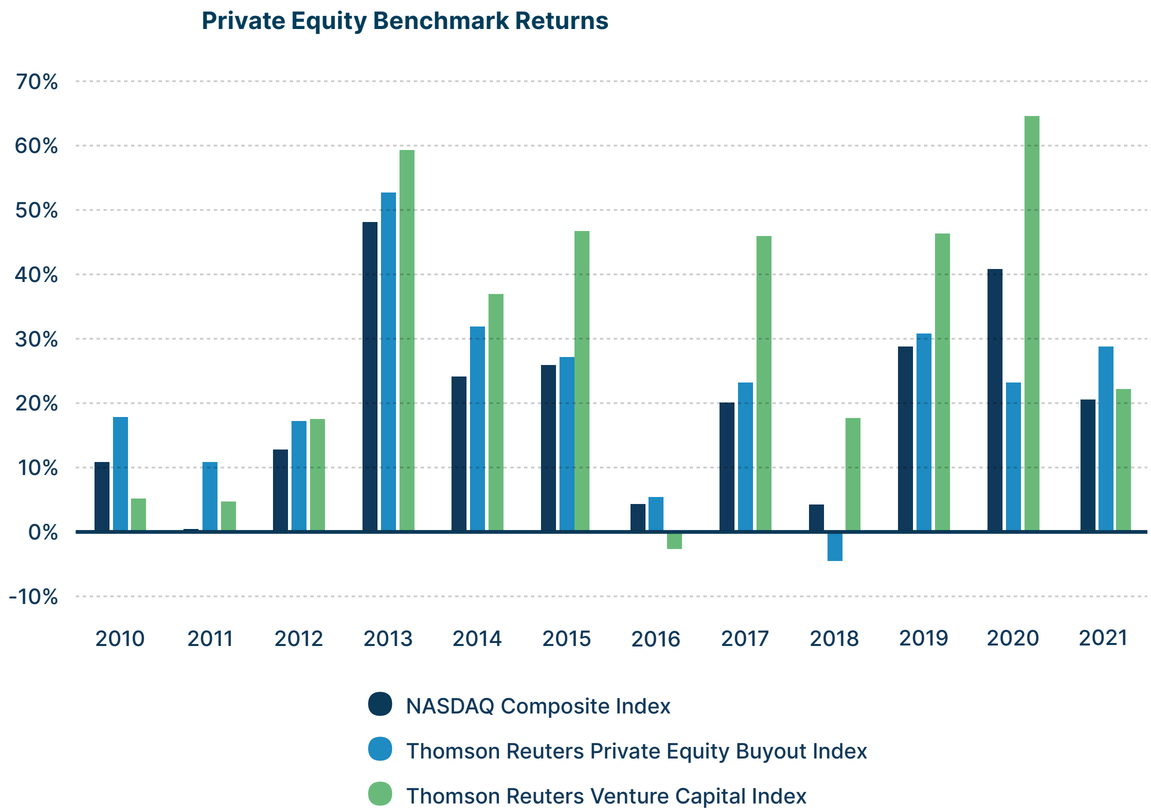


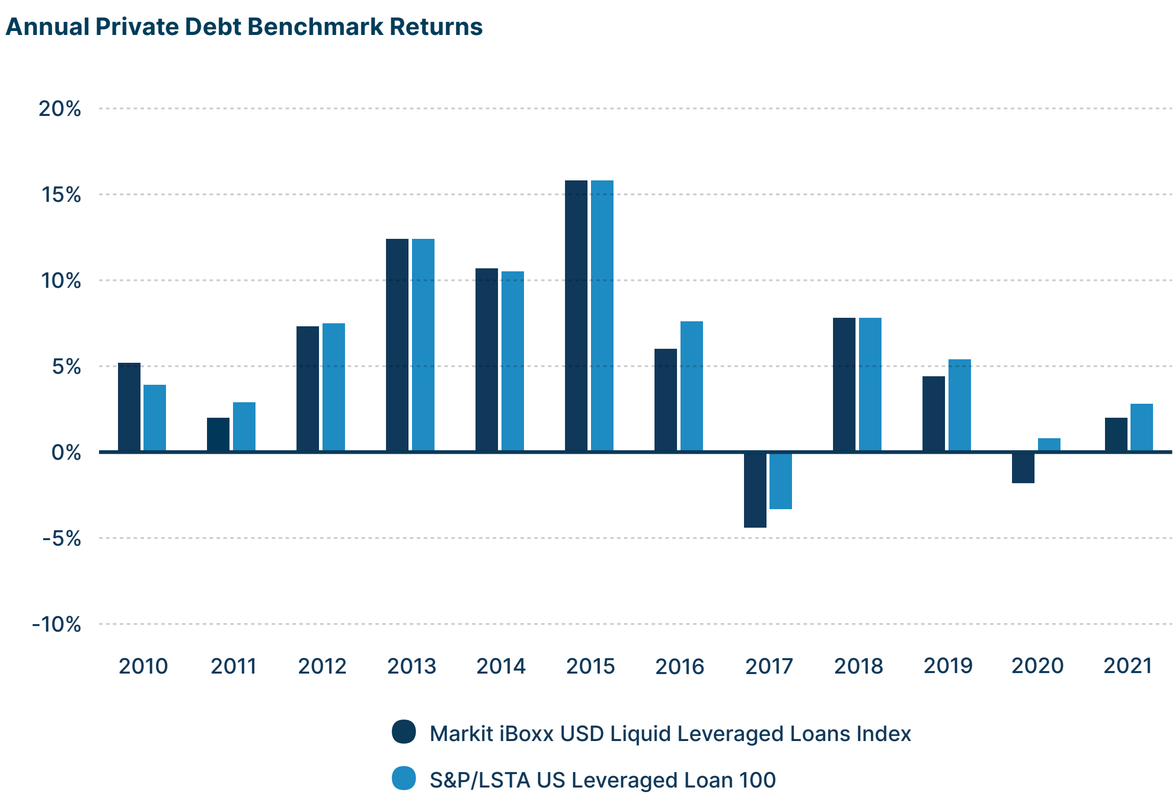
DB and TB pension funds also continued to increase allocations to the category of "other" which includes private debt and private equity. In aggregate for the funds that provide this data, the allocation to "other investments" increased from 8.5 per cent of assets to 11.7 per cent in 2021, with assets moving from publicly listed stocks into privately held investments.

Investments by B.C. pension plans in real estate and infrastructure increased by $5.4 billion in the 2021. Returns for typical North American real estate and infrastructure projects were solid throughout the year.

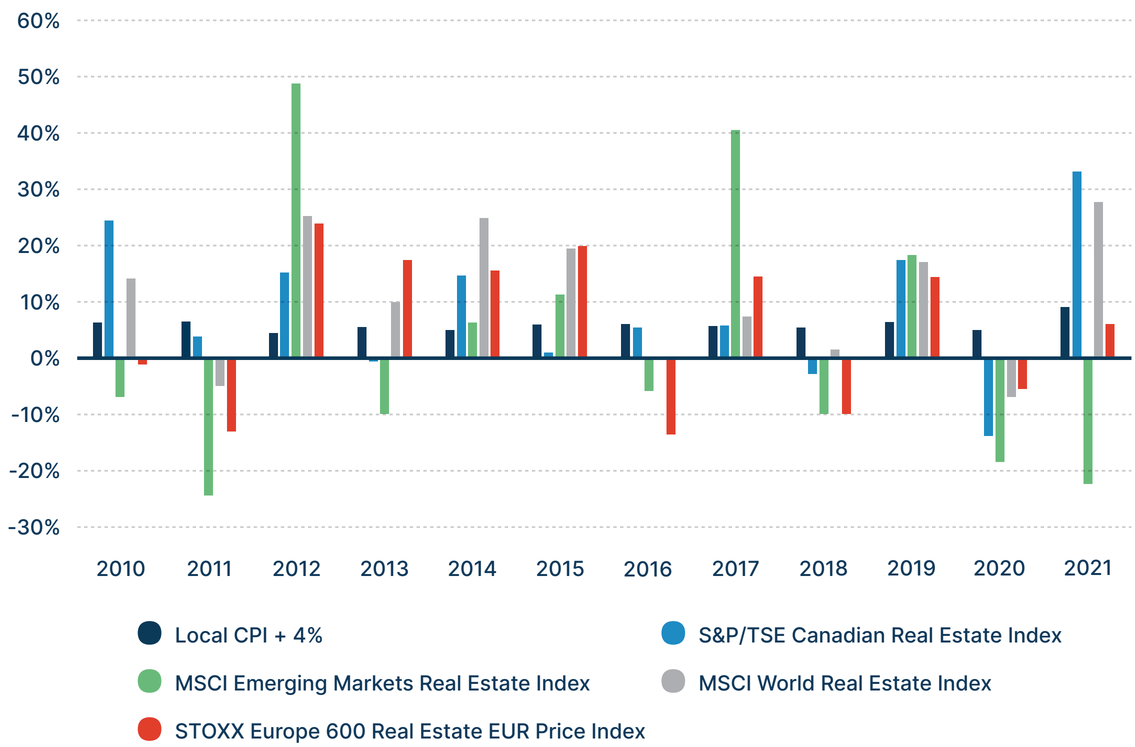
North American private debt and equity also posted gains in 2021.

With the exception of bonds rated below investment grade, most North American bond indices had negative returns in 2021 because of rising interest rates.

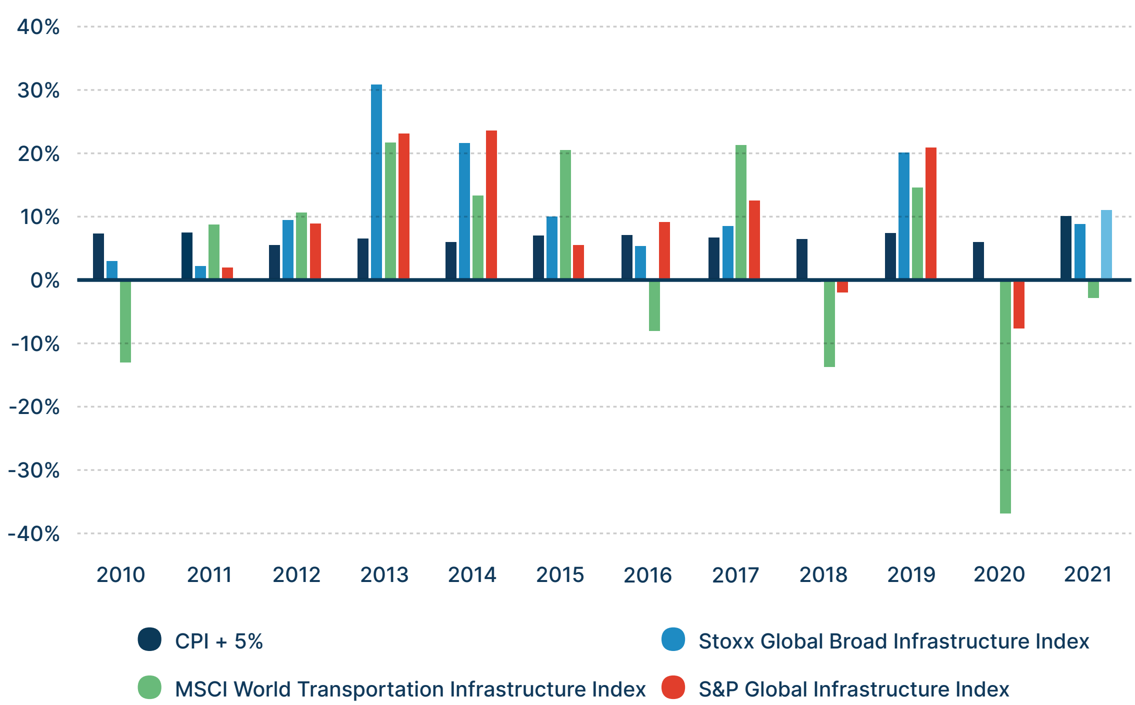

Private Equity Benchmark Returns
70%
60%
50%
40%
30%
20%
10%
0%
-10%
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
NASDAQ Composite Index
Thomson Reuters Private Equity Buyout Index
Thomson Reuters Venture Capital Index


Annual Private Debt Benchmark Returns
20%
15%
10%
5%
0%
-5%
-10%
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Markit iBoxx USD Liquid Leveraged Loans Index
S&P/LSTA US Leveraged Loan 100

Annual Real Estate Benchmark Returns



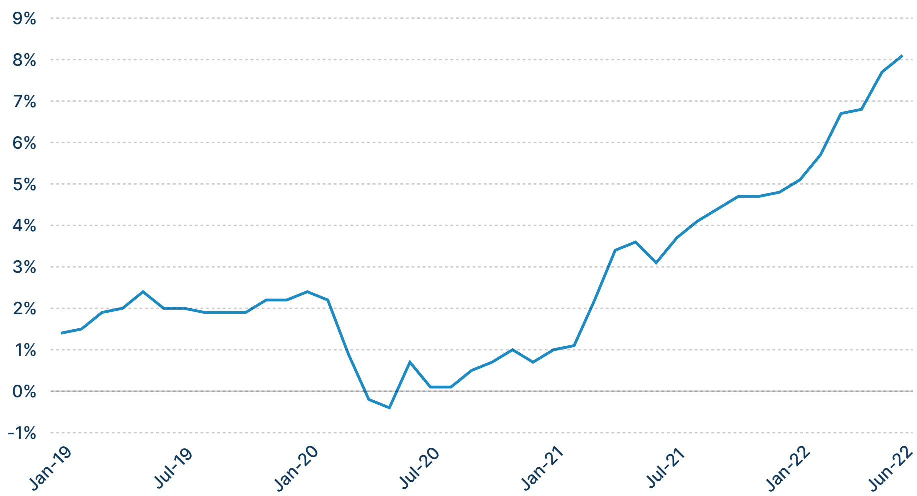
Annual Infrastructure Benchmark Returns



INFLATION AND PENSION INDEXATION

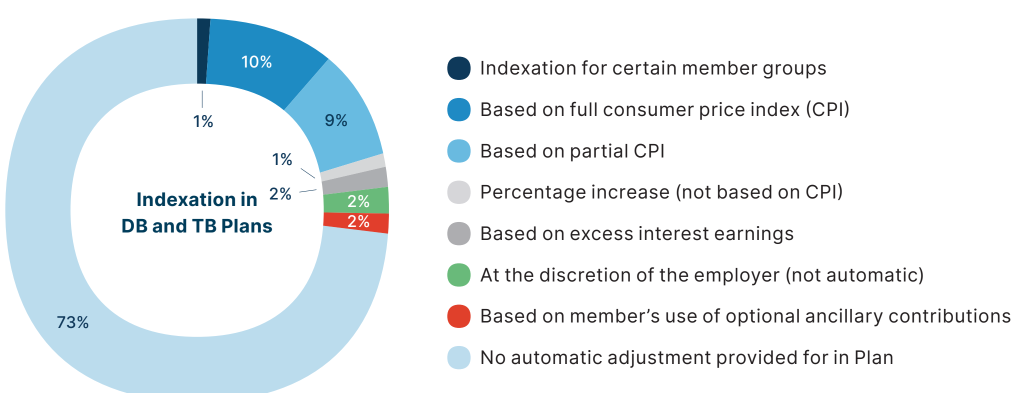
The rising interest rates were largely in response to higher inflation caused by supply chain disruptions combined with resilient consumer demand. Price gains were highest for food, shelter, transportation, and natural gas.

Canadian Inflation Rate



Source: Statistics Canada

The rising prices will have a greater impact on those individuals who are less able to negotiate higher wages, such as retirees. An analysis of all B.C. registered pension plans (DC, TB, DC) shows 7.6 per cent of plans have an explicit indexation provision that allows for increases to pensions, and many of those include limits on the amount of indexation. In addition to those plans, 22 per cent of B.C. pension plan members are in TB plans. While TB do not have permanent explicit pension indexing, they may increase pensions in pay when the funded position is sufficient. The following pie chart shows the proportion of TB and DB plans in B.C. offering each type of indexation.



FUNDED POSITION OF BENEFIT FORMULA PLANS

In response to the inflation, the Bank of Canada increased its overnight lending rate, which in turn boosted yields on long bonds. This continued with a larger magnitude in 2022.

Government of Canada Bond Yields and Solvency Interest Rates					
Government of Canada Bond Yields[2]	2018 Dec 31	2019 Dec 31	2020 Dec 31	2021 Dec 31	2022 June 30
Long-term (V122544)	2.15%	1.67%	1.24%	1.76%	3.21%
10-year (V122543)	1.98%	1.61%	0.70%	1.47%	3.29%
91-day T-bill (V122541)	1.67%	1.67%	0.12%	0.17%	2.11%
Solvency Interest Rates (non-indexed)[3]					
Commuted Value	3.20%/3.40%	2.4%/2.5%	1.4%/2.9%	2.3%/3.4%	3.7%/4.2%
Annuity Purchase	3.23%	2.96%	2.50%	2.86%	4.69%

Given solid investment returns and rising rates, the funded status of pension plans improved in 2021.

The most recent actuarial valuation reports show the plan was fully funded on a going concern basis for 87 per cent of ongoing DB plans and 97 per cent of TB plans that filed reports with review dates on or after December 31, 2019.

2 Bank of Canada, http://www.bankofcanada.ca/rates/interest-rates/.

3 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 for an illustrative block with medium duration.

The following analysis is based on the projected[4] aggregate funding position of benefit formula plans at the end of 2021. It excludes four quasi-public-sector pension plans as well as individual pension plans and designated pension plans.

Aggregate Financial Positions on December 31, 2021 ($Millions)

2021	Going Concern (DB)	Solvency (DB)	Going Concern (TB)	Solvency (TB)
Total Assets	28,536	28,984	15,219	15,056
Total Liabilities	21,757	26,023	11,357	15,160
Aggregate Funding Balance	6,779	2,961	3,862	-104
Total Funding Balance for Plans in Deficit	-238	-866	-1	-737
Total Funding Balance for Plans in Surplus	7,017	3,827	3,863	632
Aggregate Funding Ratio	131%	111%	134%	99%

In aggregate, our projections of funded status as at December 31, 2021, show the going concern funded position for DB plans improved slightly to 131 per cent from 129 per cent, while the solvency funded ratio rose to 111 per cent from 99 per cent a year earlier.

Aggregate Financial Positions on December 31, 2020 ($Millions)

2020	Going Concern (DB)	Solvency (DB)	Going Concern (TB)	Solvency (TB)
Total Assets	27,568	27,980	14,134	13,923
Total Liabilities	21,337	28,233	11,069	15,336
Aggregate Funding Balance	6,231	-253	3,065	-1,413
Total Funding Balance for Plans in Deficit	-128	-2,336	-17	-1,799
Total Funding Balance for Plans in Surplus	6,359	2,083	3,082	385
Aggregate Funding Ratio	129%	99%	128%	91%

4 We projected asset values from most recent AIR filing and liabilities from the most recently filed actuarial valuation report with an updated discount rate; we used the actual funding position if a valuation report at the indicated dates was filed.

DB and TB pension plan definitions

Going Concern Valuation: This provides an estimate of the plan's funded status if the plan continues indefinitely and benefits continue to be paid.

Going Concern Funded Ratio: This refers to the ratio of the plan's going concern assets to its going concern liabilities.

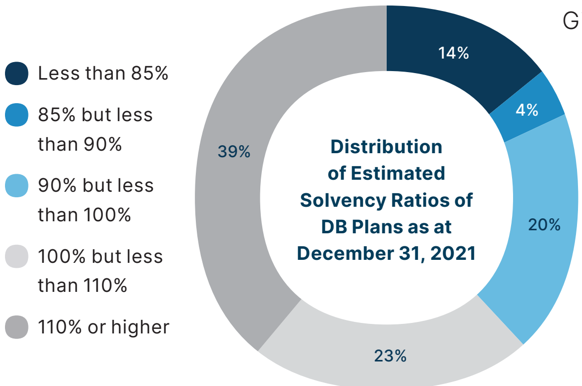
Solvency Valuation: It estimates the plan's ability to meet its obligations if terminated and required to pay all its obligations immediately.

Solvency Ratio: This refers to the ratio of the plan's solvency assets to its solvency liabilities.

Normal Cost: The amount of money needed today to be sufficient to pay the amount of pension which members will earn as they work next year. Actuaries estimate normal cost as well as the liability related to pension amounts already earned from prior years' work. To do so, they make assumptions including the amount of salary or hours of work, retirement dates, and lifespan.

Commuted Value ("CV"): A lump sum amount, the present value of the expected monthly lifetime retirement pension the member would have received if they had opted for a pension from their plan.

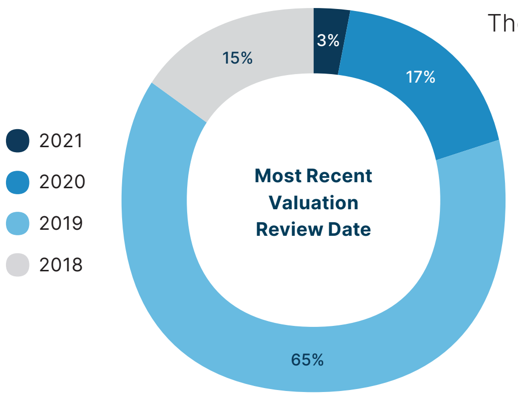
Provision for Adverse Deviation ("PfAD"): This is an additional contribution requirement that acts as a buffer. It is used to boost funding beyond the estimated minimum amount needed to make the pension payments over the long term.



Given the improved funded status, combined with amended funding rules for DB plans that came into effect in December 2019, fewer plans are making solvency deficiency payments. DB plans with solvency ratios greater than or equal to 85 per cent are no longer required to fund their solvency deficit.

As in 2020, six plan administrators are using a letter of credit to satisfy some or all of their solvency deficiency funding requirements.

Assumptions in Recently Filed Valuation Reports



The results of actuarial valuation reviews depend on the assumptions made for the analysis. In aggregate, the assumptions for the going concern valuation reviews of DB plans are more conservative than those for TB plans. For instance, the long-term real return on invested assets is estimated to be greater than 3 per cent for 82 per cent of the valuation reports filed for TB plans since 2018 but for only 55 per cent of DB plan reports filed in that period.

The average benchmark discount rate for TB plans, defined in section 2(2) of the PBSR, was 4.67 per cent. On average, TB plans used a discount rate of 5.49 per cent.

This analysis was conducted in July 2022 so includes only the valuation reports on file at that time, and hence will not include the reports with December 2021 review dates that were filed later in 2022. For those plans, the results of 2018 valuation reviews were counted.

Average Assumptions in Discount Rate

	Defined Benefit Plans	Target Benefit Plans	Median
Best Estimate Assumed Rate of Inflation	1.89	1.96	2.00
Expected Long-term Real Return on Invested Assets	2.98	3.65	3.30
Non-investment Expenses	-0.17	-0.20	0.02
Total Investment Expense (Passive and Active)	-0.29	-0.35	0.25
Returns for Active Management	0.14	0.20	0.10
Returns for Rebalancing and Diversification	0.17	0.26	-
Margin for Adverse Deviation	-0.10	-0.03	-
Other	0.06	-	0.00
Net Valuation Interest Rate	**4.67**	**5.49**	**5.20**
Net of Investment Fees Only	4.84	5.69	
Gross Discount Rate	5.13	6.04	
Number of discount rates which include a margin	35	6	

Average Investment Expense Assumption (% of Assets)

Size of Plan (Assets)	Number of Plans	Average Investment Expense Per Plan
Under 5 Million	37	0.31%
5-10 Million	14	0.35%
10-25 Million	28	0.36%
25-100 Million	50	0.29%
100-250 Million	26	0.21%
Over 250 Million	33	0.30%

Investment management fees typically are charged as a proportion of the assets invested. Asset managers generally charge less as the size of the fund under management increases, particularly for very large funds. Hence, if the type of service offered were the same, one would expect larger pension plans to pay fees that are a smaller percentage of assets than smaller plans. However, the average investment expense assumed for larger plans is higher than that assumed for mid-sized plans. This is likely because very large pension funds have increased their investments in wide range of private assets, including infrastructure, hedge funds, private equity, for which management fees are higher. Our analysis three years ago found that average investment fees declined as plan size increased, so the reversal is recent.

DB PfAD as at December 31, 2020

PfAD	Number of Plans
5% to 6.5%	21
6.5 to 7.3%	1

The funding rules for DB and TB plans registered in B.C. are generally referred to as “Going Concern Plus” since a PfAD is required to be funded on the current service cost. As a further measure to protect accrued pensions, benefit improvements for TB plans are not permitted until the pension fund’s assets are large enough to cover the plan’s liabilities as well as the PfAD. The legislation setting out how to calculate a PfAD differs for DB and TB plans. The average TB PfAD has increased steadily since the 2015 legislative change that allowed for the creation of TB plans, leading plan administrators to request changes to the prescribed calculation of a PfAD, as discussed below. For DB plans, the PfAD is directly related to the yield on Government of Canada long bonds, which rose slightly in 2021 and spiked to 3.2 per cent in June 2022. While the rising long bond yields may result in lower calculated solvency liabilities for DB plans, higher yields may contribute to increases in contribution requirements for the PfAD.

Average Target Benefit Assumptions						
Review Year	2015	2016	2017	2018	2019	2020
Number of Valuation Reports Filed	15	19	17	11	19	7
Average PfAD	17%	19%	22%	21%	24%	28%
Average Equity Allocation	49%	43%	40%	41%	42%	34%
Average Going Concern Discount Rate	5.8%	5.7%	5.5%	5.8%	5.6%	5.2%
Average Benchmark Discount Rate	5.6%	5.4%	5.0%	5.3%	4.7%	4.2%

While most assumptions in a solvency valuation are prescribed, the estimated wind-up expenses are not, and we have seen significant variations between plans in the estimated wind-up expense. Our Bulletin PENS-18-001 outlines the expectations on termination expense assumptions, including the expectation that the termination date, the settlement date, and wind-up dates are not to be the same.

Average Wind-Up Expense Assumed			
Size of Plan (Total Members)	**Number of Plans**	**Average Wind-Up Expense ($)**	**Average Wind-Up Expense per Member ($)**
Fewer than 100	64	79,600	2,116
100-499	45	211,400	895
500-999	17	346,500	483
1000-4999	31	787,200	353
5000-9999	8	1,196,600	173
10,000 or more	7	3,962,300	122

Larger plans assume a lower wind-up cost per member, which is reasonable since many wind-up costs do not increase greatly as membership increases. The above analysis omits those plans for which wind-up expenses would be paid by the employer rather than expensed to the pension fund since employer-paid expenses are not relevant to analysis of plan funded status.

5. Legislative Amendments

In March 2021, the PBSR was updated to reflect the use of more inclusive wording that does not use gendered language. These changes were made to demonstrate our government's commitment to equity and inclusion[5].

In December 2021, by way of *Order in Council 704/2021*, section 31(1)(a) of the PBSR was amended such that annual statements for each person receiving life income type benefits from a DC component must be provided within 60 days from the end of a calendar year, instead of the prior timeline of within 30 days.

5 See 2020/2021 Annual Report on Better Regulations for British Columbians for more information on our Government's Initiatives, including the Inclusive Language Initiative.

6. BCFSA's Operational Priorities

BCFSA's first Service Plan as an integrated organization was released in February 2022. The plan for fiscal 2022/23 - 2024/25 sets the goals, objectives and performance measures that BCFSA has committed to the government to achieve. Furthermore, an Advisory was published in May 2022 releasing the 2022/23 Regulatory Roadmap, which lays out BCFSA's regulatory priorities for the next three fiscal years.

BCFSA's operational priorities and strategic direction include:

- Safeguarding the integrity of the financial services sector
- Enhancing public protection
- Instilling confidence in the marketplace

#1: RISK-BASED SUPERVISION

BCFSA published the Supervisory Framework for provincially regulated financial institutions, including pension plans, in September 2021.

One goal for the Pensions Department set out in the Regulatory Roadmap is to publish an updated version of the Risk-Based Supervision Framework for Pension Plans. This document will cover in detail our current approach and process for supervising B.C. registered pension plans.

Overview of Our Supervisory Process

BCFSA's risk-based supervision ("RBS") of pension plans is principles-based. It focuses on the risks which, if they were to arise, would have the most detrimental impact on BCFSA's mandate. RBS assesses the impact of the risks and the likelihood of their occurrence. RBS requires sound judgment in identifying and assessing risks as well as determining, from a wide variety of supervisory and regulatory options available, the most appropriate method to ensure that the risks a pension plan faces are adequately managed.

Our Review Process

To assist in the review of a plan, Team Members request recent copies of plan documents required under the PBSA and/or PBSR such as:

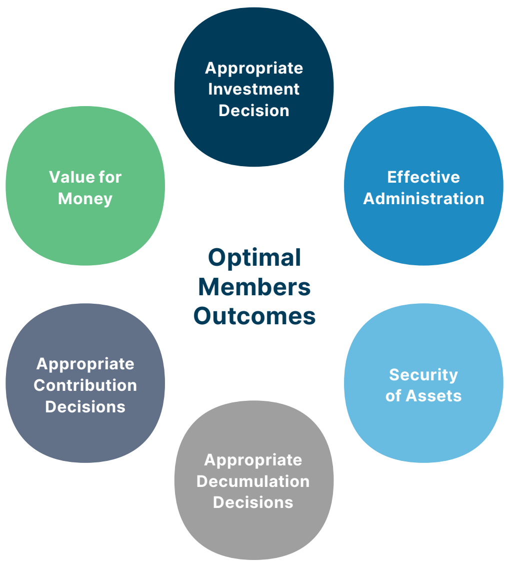
- Assessment of the plan [section 41(2) of the PBSA]
- Governance policy [section 42 of the PBSA]
- Statement of investment policies and procedures [section 43 of the PBSA]
- Funding policy [section 44 of the PBSA]
- Plan summary [section 29 of PBSR]
- Sample statements and records provided to plan members [sections 30-34 of PBSR]

We also request examples of due diligence such as the service agreements and contracts with the plan's service providers, service provider performance reviews, fee reviews, and investment performance reports.

We seek to engage plan administrators at all stages of our review process in order for both parties to develop a better understanding of the possible impact of an adverse event on the benefits of the plan's members. As part of our review process, Team Members may also request a teleconference with the administrator and/or any other party involved in the administration of the plan.

A supervisory letter, summarizing BCFSA's findings and recommendations, will be delivered to the plan administrator. Team Members continue to monitor and follow up on any required action items resulting from each supervisory review.

BCFSA's formalized RBS process has primarily focused on benefit formula plans. As we expanded the current framework to include a more structured process for the RBS of DC plans, our monitoring focus for detailed reviews in 2022 includes DC plans. This process will focus on promoting optimal member outcomes as well as managing the fundamental risks that threaten the achievement of those outcomes.



RBS and regulation of pension plans is an iterative process. The more we learn from and work with the various pension plans within our jurisdiction and other supervisory authorities across Canada, the better we understand what risks confront Canadian pension plans as well as how to most appropriately supervise and guide pension plan administrators in the mitigation of those risks.

Survey of DC Plan Administrators

In September 2021, BCFSA sent a survey to 472 DC pension plan administrators. The purpose of the survey was to:

- Establish a baseline understanding of how B.C.'s DC plans manage the fundamental risks and stimulate the optimal members outcomes
- Inform the construction of BCFSA's supervisory framework for DC plans

The survey questions focus on plan activities that relate to the following fundamental risks identified in our supervisory framework for DC plans:

- Administration and governance risks
- Financial risks
- Member education/communication risk

A summary of the survey responses is on our website. Overall, the responses suggest that many DC plans would benefit from enhanced governance and have opportunities to improve in monitoring both members' outcomes and administrative functions, including member education strategies.

Results of 2021 Risk-Based Supervision (DB and TB)

In 2021, the Pensions Department completed reviews of four benefit formula pension plans. These plans were selected for review based on their relative risk profile compared to their peers. We also conducted a more detailed review of one of the four pension plans, focusing on plan governance and administrative practices.

The scope of our supervisory review of the selected benefit formula pension plans included:

- **Funding Risk:** The risk that the pension plan's assets will not be adequate to pay member benefits. This risk is assessed on the scale of **low, moderate, above average, high.**
- **Investment Risk:** The risk that adverse asset performance will lead to a shortfall in plan assets relative to plan liabilities or cashflow stress. This risk is assessed on the scale of **low, moderate, above average, high**
- **Governance Risk:** The risk that inadequate management, oversight, and controls may adversely impact the effective administration of the plan. This risk is assessed on the scale of **poor, needs improvement, acceptable, good.**
- **Plan Sponsor Risk:** The risk that the plan sponsor(s) may not have the financial resources to be able to continue funding the plan. The strength of the plan sponsor(s) is assessed on the scale of **weak, tending to weak, tending to strong, strong.**

Funding

In our reviews we found the funding risk to be moderate for two plans, low for one plan and high for the other plan. Our review of funding risk takes into consideration the level of plan funding on both a going concern and solvency basis, the appropriateness of assumptions and methods used in the actuarial valuation, and the extent of compliance with prescribed funding requirements. For the one plan where funding risk was assessed as high, Team Members continue to monitor and support the plan administrator's efforts toward resolving the plan's funding challenges.

Investment

Our review of the four plans found the investment risk of each was moderate. The review considered the extent of regulatory compliance, fund performance, financial risk, and the appropriateness of the plan's investment policy.

Given the broad definition for each risk level, a plan's investment risk is assessed as moderate when, overall, the plan's asset mix policy allows for moderate exposure to return-seeking investments (e.g., equities), and the level of risk is acceptable.

Governance

Our review found that the governance of three plans was acceptable, while we ranked the governance as needing improvement for one other plan.

Good governance is seen as one of the most critical pieces in the effective administration of a pension plan.

In our current RBS framework, risk management practices and governance are categorized as poor, needs improvement, acceptable, or good.

For the plan assessed as needing improvement, Team Members identified that certain oversight and control procedures currently in place are not adequate to mitigate the plan's key risks. Some plan documents also were missing legislatively required disclosure items.

Sponsor

The plan sponsor risk for two of the plans was assessed as tending to strong. Considering the large number of employers participating in the other two plans, we did not perform a robust review of the financial status of each participating employer, and hence we did not provide a plan sponsor assessment score for those plans. As part of the monitoring process, team members continue to monitor the industry/business trends of the participating employers and a more in-depth review on the plan sponsor risk of these employers may be warranted, if necessary.

#2: REGULATORY INFORMATION

In 2021, BCFSA published four Regulatory Statements related to pension plans on these topics:

- Use of Letters of Credit for Meeting Solvency Deficiencies
- Registration of Amendments
- Transfer of Commuted Values by Members
- Valuation Filing Requirements

Furthermore, BCFSA has issued an Information Security Guideline to draw attention to this growing threat. It outlines principles-based expectations to manage and mitigate information security risks. We also issued an Outsourcing Guideline setting out both high level principles and specific BCFSA expectations on procedures and practices. The effective date of both guidelines is September 30, 2022.

Natural Catastrophe and Climate Risk

In light of the significant risk to British Columbians posed by natural catastrophes, including earthquakes, fires, droughts and floods, BCFSA monitors the risk to our organization as well as that of entities we regulate. A discussion paper on BCFSA's proposed approach to managing natural catastrophe and climate risk for the financial services sector is expected to be released in the upcoming fiscal year.

Specific to pension plans, together with our peers across Canada, we facilitated an industry working group on best practices for incorporating environmental, social, and governance considerations in pension fund risk management. Our work also takes into consideration the guidance and approaches adopted by other supervisory authorities across Canada.

The Pensions Department will continue to issue regulatory statements, advisories, and guidelines to promote an effective governance and oversight procedure by the plan administrators and support the industry to address emerging risks that could have a material impact on pension plans and plan members.

#3: ADMINISTRATION AND COMPLIANCE OF THE PBSA AND PBSR

As a modern, effective, and efficient regulator, we continue to enhance our efforts to encourage compliance. For instance, in 2022 we sent plan administrators reminder emails providing advance notice of upcoming filing deadlines. To facilitate payment of filing fees, we provided payment instructions on our pension e-filing website and now accept payments by credit card. This year, 88 per cent of plans filed their annual information returns for the fiscal year ending in 2021 by the deadline. Last year 73 per cent of plans met the deadline.

While our focus is on encouraging compliance, we do issue administrative penalties to plans that breach legislation. This spring we issued penalties to the plan administrators of three pension plans that were at least six months overdue with Annual Information Return filing and/or the associated fees, in breach of sections 44(2) and 138 of the PBSR or section 38(1) of the PBSA. The penalty amount imposed on one of the plans was $14,500.

Triennial Plan Assessments

Section 41 of the PBSA and section 49 of the PBSR stipulate the requirement for all B.C. registered plans to undertake periodic assessments of the operation of their pension plan and document the assessment in writing. Section 41(1) of the PBSA reads:

" The administrator of a pension plan must, at the times and in the manner required by the regulations, assess the administration of the plan including, without limitation,

a) the plan's compliance with this Act and the regulations,

b) the plan's governance,

c) the funding of the plan,

d) the investment of the pension fund,

e) the performance of the trustees, if any, and

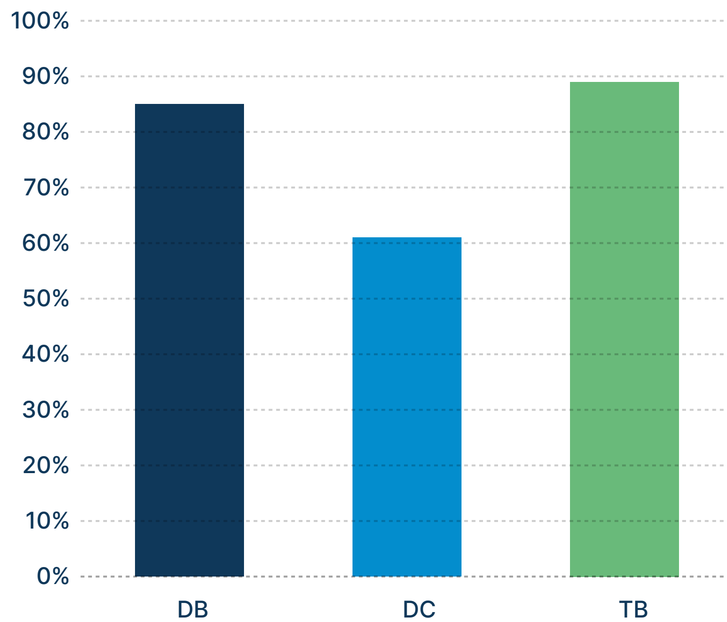
f) the performance of the administrative staff and any agents of the administrators."

The assessment must be in writing and kept on file by the plan administrator. While the assessment does not need to be filed with the Superintendent, a plan administrator must make it available to BCFSA on the Superintendent's request.

The Assessment Process is Part of Good Governance

One question on the Annual Information Return that plans file is whether the administration of the plan was assessed in the fiscal year. Based on the responses in the past three years, most plans have completed an assessment, as shown in the graph below. BCFSA will continue to work with plan administrators to build awareness of this statutory obligation to assess the pension plan at least triennially, particularly among DC plans.

Proportion of each type of plan with completed plan assessment



#4: STAKEHOLDER ENGAGEMENT

Provision for Adverse Deviation for TB Plans

A working group[6] was established in 2019 to discuss and explore changes to the prescribed definition of PfAD for TB plans in B.C. and to develop recommendations for both short-term relief and long-term reform.

On December 18, 2020, the PBSR was amended by Order in Council 649/2020 to offer short-term funding relief to TB plans. Administrators of TB plans may elect an exemption from the requirement to fund the PfAD on normal cost under section 58 (2)(b) of the PBSR for a period that begins on a review date from December 31, 2019, to December 30, 2022, inclusive and ends before the following review date. This temporary measure provides interim funding relief for TB plans as the working group sought to fulfil its mandate to make recommendations for long-term changes.

Following a series of meetings between August 2020 and January 2022 to address concerns about the PfAD raised by TB plans (see below), the working group developed a proposal for the long-term reform. The proposal suggested that the revised PfAD should:

- Provide a minimum buffer to promote benefit stability
- Be easy to determine, understand, administer, and communicate
- Be relatively stable and predictable over time
- Support the enforceability of PBSA funding requirements for TB Plans

Please see our Advisory 22-040, titled Provision for Adverse Deviation for Target Benefit Plans Reform and Other Amendments, which apprises the outcome of the working group

Concerns raised by TB plans:

- The size of the current PfAD is too large, which restricts the administrators' ability to manage other risks such as intergenerational inequity
- The current PfAD is too volatile, which makes it difficult for the administrator to govern plans
- The PfAD formula is based on a classification of asset classes that may unfairly penalize plans that adopt a prudent investment strategy
- The culmination of these challenges has limited the ability of TB plans to make benefit improvements

6 The working group includes employees from the B.C. and Alberta Superintendents of Pensions and the Financial and Corporate Sector Policy Branch of the Government of B.C. as well as individuals with technical pension expertise and stakeholder representatives.

Canadian Association of Pension Supervisory Authorities

BCFSA is an active participant in the Canadian Association of Pension Supervisory Authorities ("CAPSA"), an association of Canadian pension regulators. The mandate of CAPSA is to facilitate an efficient and effective pension regulatory system in Canada. In addition to ensuring pension plans comply with legislative requirements under the PBSA and PBSR, our work is based on guidelines issued by CAPSA and industry best practices.

BCFSA expects pension plan administrators to follow best practice guidelines issued by CAPSA when designing, administering, and overseeing their plans, and to be continuously engaged in fostering the achievement of positive outcomes for their members. Of particular interest to both administrators and members of DC pension plans is CAPSA's Member Guide for DC Plan Members published in October 2021. Last year CAPSA also issued Guideline No. 7: Pension Plan Funding Policy.

With interest rates remaining relatively low compared to historic levels, some plans turned to financial leverage either to match duration of investments with plan liabilities or in aspiration of greater returns. CAPSA has issued draft guidance for public consultation on Leverage and the Effective Management of Associated Risks. There are also other draft guidelines published by CAPSA that are under Stakeholder Consultation, including:

- Environmental, Social and Governance Considerations in Pension Plan Management
- Cyber Risk for Pension Plans
- Guideline No. 3 - Guidelines for Capital Accumulation Plans

To understand and address emerging risks in pensions, the Pensions Team Members have been and will continue to be learning and gaining insights from our participation in the following working groups:

- Actuarial Standards Committee
- Capital Accumulation Plans Guideline Committee
- Cybersecurity Committee
- Committee on Integrating Environmental, Social, Governance Factors in Pension Plan Supervision
- Decumulation Committee
- Leverage Committee
- Multilateral Agreement Committee – Multi-Jurisdictional Pension Plans
- Risk Management Guideline Committee

Public Forums and other External Engagement

Members of the Pensions Team spoke at the following industry events virtually in 2021:

- ACPM – Regulators' Roundtable
- International Foundation of Employee Benefit Plans – Conference on Target Benefit Plans
- Multi-Employer Benefits Corporation – Annual General Meeting
- Pacific Business and Law Institute -Essential Tasks of Pension and Benefit Plans Trustees
- Tory's Client Seminar – ESG

BCFSA also participated on the BC Law Institute's Pension Division Review Project committee. The Committee worked for more than two years, examining pressing and emerging legal issues related to pension division. The final Report on Pension Division: A Review of Part 6 of the Family Law Act was released in March 2021.

2022 Pensions Forum

BCFSA engages with regulated entities and individuals to understand their views, challenges, and opportunities as well as to help identify and address potential trends. To that end, we will host a Pensions Forum on October 13, 2022, both online and in person in downtown Vancouver. The forum will be an opportunity to build on the success of the Pension Stakeholder Engagement Forum held in 2017, bringing together participants in the pension sector – sponsors, administrators, and service providers – to connect, learn, and discuss pension topics. The topics for this year's forum are based on the feedback received in our May 2022 survey. There will be panel discussions and opportunities to exchange innovative ideas/information about the changing retirement landscape, industry trends, and emerging risks, specifically faced by DC plan administrators and members. In addition, the forum will cover an overview of the pension regulatory landscape in B.C. and BCFSA's supervisory framework and approach to emerging risks in pensions.

Engagement remains a priority for BCFSA, and we look forward to hosting our Pensions Forum on October 13, 2022.

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12. Canadian Association of Pension Supervisory Authorities, 2020 Agreement Respecting Multi-Jurisdictional Pension Plans https://www.capsa-acor.org/Documents/View/1786
13. Canadian Association of Pension Supervisory Authorities, Guidelines https://www.capsa-acor.org/

BCFSA Pension Regulatory Statements are found here:

https://www.bcfsa.ca/industry-resources/pension-resources/pension-regulatory-information

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