WORK SAFE. FOR LIFE.
WORKERS' COMPENSATION BOARD OF NOVA SCOTIA

2024 Funding Strategy

With funding projections 2024–2028

Table of Contents

Executive Summary

Funding of the Workplace Safety and Insurance System (WSIS) requires consideration of a number of complex variables and assumptions relating to future events. This creates significant uncertainty and limits our ability to accurately predict future funded positions precisely. As a result, we recommend these estimates be viewed as potential funding levels with room for potential variance.

In line with the strategic priority of funding our future, the funding strategy assumes a growing economy, long-term investment return expectations across a diversified portfolio and stabilized claims costs for a financially sustainable system. The WCB collects premiums from employers to pay the benefits resulting from workplace injuries that occurred in the year. Additionally, the WCB must maintain sufficient invested assets to cover the growth in the benefits liability for benefits awarded in the past. The WCB's financial position weakened in 2022, primarily attributed to losses on investments and unfavourable actuarial experience adjustments. This was not unexpected in the backdrop of 2022 being a year of investment market volatility and inflationary pressures. In summary, assets do not exceed liabilities.

The reality is that there will always be annual variability in the funded position. As we continue to work toward strengthening our financial position, we recognize that workers and employers have waited a long time for reforms to the system. We further recognize the traumatic psychological injuries continue to challenge caseloads and costs as these claims are quite persistent and the outcome of new treatment protocols is not yet fully matured and understood. Gradual onset stress could present similar challenges.

Our early experience with psychological injuries shows that previous estimates of annual claims costs were not sufficient to cover the actual cost of these complex injuries. This led to significant actuarial experience adjustments in the last two years with additional unfavourable adjustments expected in 2023.

Given broader conversations around system review, the uncertainty in benefit costs, investment market and the economy and with the goal of strengthening our financial position, the average assessment rate is proposed to be held at $2.65/$100 of payroll in 2024.

Annual revisions to the funding strategy are required to reflect actual experience and changes in assumptions. Actual claims experience, assessable payroll (premium revenue), investment experience, benefit enhancements and the accrual of costs associated with occupational disease in the latency period are among the factors incorporated into the funding plan in recent years. A foundation scenario is used to prepare the financial projections and is the basis of the discussion here. Details of the financial projections resulting from the foundation scenario are included in Appendix A.

The impact of the global pandemic continues to unfold in Nova Scotia. The workforce has largely recovered; however, supply chain issues, labour shortages, and global unrest has generated high inflation and increased wages. The size of the workforce will impact both time loss claims and payroll in 2024 while increased wages will impact both payroll and benefit costs.

Investments lost over 7 per cent in 2022 with market declines noted in all major market indices. The probability of achieving a 6 per cent return in 2023 is uncertain, however progress in the year to date is encouraging. For purposes of the funding strategy, we are assuming investments will earn 6 per cent in 2023. The estimated impact of this and the targeted improvements in injury prevention and return to work is expected to improve the funded ratio to 93 per cent at the end of 2023.

Financial gains can occur when revenue is greater than expected and/or costs are lower than expected. The probability of exceeding cost savings targets is currently considered low given the current economic environment. Significant gains or losses could occur due to investment market volatility within any given year. This can have a significant impact on the funded position. For example, in March 2020, after significant investment market declines the funded position was 88.0 per cent, and following market rebounds, the end of year result was funded position of 102.9 per cent. Similarly, in 2022, the Accident Fund decreased to 92.9 per cent funded from 106.4 per cent in 2021. These wide fluctuations in investment returns and actuarial adjustments demonstrate how results can vary over a short period of time and the impact this can have on the funded position.

The 2024 foundation scenario includes overall provisions for improvements in claims and administrations cost and growth in the workforce/ revenue. It also reflects allowances for increases in annual claims costs incurred to reflect the impact of significant inflation, increasing wages, and psychological impairments that can significantly challenge return to work.

The impact of traumatic psychological injuries has slowed progress on the Time-Loss Days Paid per 100 Covered Employees. We estimate a gradual decrease in claims costs from $1.79 in 2023 to $1.73 in 2028. In the short term administrative and legislated obligations are expected to increase from $0.61 in 2023 to $0.63 in 2024 as we invest in resources to improve outcomes on traumatic and other psychological injuries and provide for higher inflationary costs than seen in recent past. Following the initial investment, administrative and legislated obligations costs are projected to decrease to $0.59 in 2028.

The base case currently reflects a combined cost of claims and administration $2.38 in 2024 decreasing to $2.32 by 2028. The probability of achieving these estimates will be significantly improved based on the system investments we have made. As per the current version of the plan, the excess available to improve our funded position in 2024 is expected to be $0.27.

The proposed 2024 Administrative, Legislated Obligations and System Support budget of $108.1 million reflects the operational, capital and project investments needed to deliver results in the various areas noted above while maintaining the current average actual assessment rate and strengthening our funded position.

Total comprehensive income of $62.4 million is projected for 2024; contributing positively to the funded position. As we move forward, we must take a long term view to maintain sustainable funding into the future.

Background

The Workers' Compensation Act passed in the spring of 1995 makes specific reference to the Workers' Compensation Board funding requirements. The Act mandates the WCB to make an assessment on and collect from employer's sufficient funds to cover the current and future claims and administrative costs of all injuries occurring in the year.

These requirements give the WCB guidance for funding and budgeting decisions on an annual basis. The funding strategy incorporates this foundational guidance and other key assumptions into a financial model with an underlying goal of modelling financial sustainability into the future.

Investment income is a key component of the funding strategy. The general premise is that invested assets will generate sufficient income to cover the growth in the benefits liability. While it is a key component, it is also a key source of variability. In the shorter term we have seen fluctuation from our long term assumption of 6.0 per cent Investment returns; however, over time the assumption has generally aligned with actual experience. In 2022, the portfolio returned negative 7.2 per cent following three years of investment returns that exceeded the long term assumption. The annualized 10-year return as of December 2022 of 7.1 per cent. On balance, for the period 1995 to 2022, investment returns averaged 6.5 per cent per annum; exceeding our long term assumption of 6.0 per cent. Over the last 20 years, investments returns averaged 5.7 per cent annually.

Going forward, it will be important to strengthen our financial position and mitigate the risk of uncertainty related to payroll, benefits and investment returns. The original funding strategy was developed in December 1995 and anticipated elimination of the unfunded liability in 2039. Since that time, new and enhanced entitlements for chronic pain, supplementary benefits,traumatic psychological injuries, and firefighter cancer added hundreds of millions of dollars to the liability. The reinstatement of survivor benefits, changes to accounting policies and the inclusion of an allowance for latent occupational disease and an updated study in 2022 are also among the changes to benefit costs.

While there were challenges, we also experienced economic growth to a larger scale than expected leading to covered payroll in recent years that far exceeded original estimates. Overall, elimination of the unfunded liability occurred years sooner than expected.

Financial progress over the past several years has been encouraging; however, there are many factors that can influence the funding strategy. At the end of 2022, liabilities exceeded assets with a funded ratio of about 92.9 per cent (in 2020 and 2021 assets exceeded liabilities for the first time in decades). This demonstrates how easily the funding position can flip from funded to unfunded when assets and liabilities are almost equal. The long term impacts of the global pandemic, ongoing unrest in Europe, and continuing higher inflation could continue to impact investment returns and economic conditions.

The WCB's updated Strategic Plan for 2024-2030 includes considerations for the establishment of a sustainable funded percentage range. Many jurisdictions across Canada consider sustainable funding to be a percentage greater than 100 per cent. A funding policy may consider a range, setting upper and lower thresholds where action may occur. This supports long term sustainability and stability of rates and benefits.

To a large extent, the funding period was used to absorb variations between financial projections and actual results. This approach allowed us to meet a key objective of maintaining a plan to eliminate the unfunded liability while providing relative stability in assessment rates and benefits paid to injured workers. For 2024, we have constructed a foundation scenario incorporating recent results, assumptions on future likely performance and working toward long term financial stability.

The target for total revenues for 2024 is $564.1 million based on:

- a projection for insured firms' assessable payroll of $15.2 billion, yielding assessment revenue of $406.6 million,
- investment income of $150.0 million, and
- revenue from self-insured employers of $7.5 million (administration fee).

In 2024, the excess of liabilities over assets is expected to decrease by $62.4 million, improving the funded position to 96%. This results from the total revenue target of $564.1 million minus

- claim costs of $266.8 million (insured claims),
- the growth in present value of the benefits liability of $132.4 million,
- administrative costs of $80.3 million,
- adjustment for future administration costs reducing liabilities by $2 million , and
- legislated obligations and system support of $24.1 million.

Additional key projection assumptions made in the funding strategy for 2024 and onward include:

- Gross Interest Rate of 5.5 per cent per annum (an increase from previous strategy assumptions of 5.25 per cent and aligned to financial reporting),
- Investment Income return of 6 per cent,
- Consumer Price Index (CPI) long term Bank of Canada of 2 per cent,
- Continued progress on savings targets arising from investments in prevention, return to work and service delivery, and
- Average assessment rate is $2.65, holding constant until other strategic objectives are achieved.

Long-term disability is the WCB's largest cost area. Following several years of decreased volume, the 716 (653 insured) claims resolved to EERB in 2021 and the 704 (631 insured) in 2022 far outpaced any prior year. The implementation of new systems, immediately followed by a global pandemic led to a backlog of work. Additionally, traumatic psychological injuries have steadily increased in recent years and return to work success is more challenging on these claims. Given the aging workforce, traumatic psychological injuries and the general prevalence of mental health issues in Nova Scotia, these benefits represent a significant area of risk for the WCB.

Assessment revenue could also generate gains or losses in any given year. However, a significant change would be required to impact the funding position. For example, the global pandemic led to a sudden and unexpected 4 per cent decrease in the covered workforce. However, the temporary decrease was recovered quickly and the WCB's funded position was not materially impacted.

Health care is about 26 per cent of the total claims costs incurred. The remaining 74 per cent of claims costs incurred are almost all wage related. It therefore seems reasonable that over the longer term, these costs will grow at a rate similar to growth in payroll. We therefore assume wage growth and increases in covered payroll will continue to generate payroll growth approximating CPI plus 1 per cent; consistent with the rate of growth expected on wage related benefits.

Positive economic conditions, combined with operational efficiencies, have improved the Workers' Compensation Board's financial position since December 1994 and the unfunded liability had been eliminated. However, positive variances in funding are subject to reversal as was the case in 2003 with the inclusion of the estimated costs of chronic pain related benefits; in 2007 when we experienced higher than expected costs in both long term disability and health care along with lower than expected investment returns; in 2008 and 2022 when we experienced significant losses in our investment portfolio.

A limitation of the funding strategy model is that it does not fully reflect the likely changes in the estimated liability that will accompany planned reductions in the cost structure.

Recent Financial Results

The operating results for 2022 and 2021 are attributed to the following factors:

	2022 (000s)	2021 (000s)
Assessment revenue in excess of current year costs	$48,236	$26,443
Investment income above (below) liability requirements*	(284,252)	107,714
Actuarial liabilities and adjustments (more) less than previously anticipated	(167,587)	(60,199)
Other Contribution – Province of NS (Presumptive Cancer in firefighters)	69,563	—
Other comprehensive income from actuarial losses on post-employment benefits	8,335	10,420
Total comprehensive income (loss)	($325,705)	$84,738

*Surplus (Shortfall) of investment income relative to growth in present value of the benefits liabilities.

The substantial loss in 2022 came from two key areas. Investment returns varied dramatically from the long term assumption and were well below the liability requirement. In addition, recent experience with claims resolved to long term earnings loss and an updated occupational disease study led to unfavourable experience adjustments increasing the liability for injuries and exposures that occurred on or before December 31, 2022.

Assessable payroll was higher than expected increasing almost 10% over 2021. This slightly offsets some of the experience and investment losses noted above.

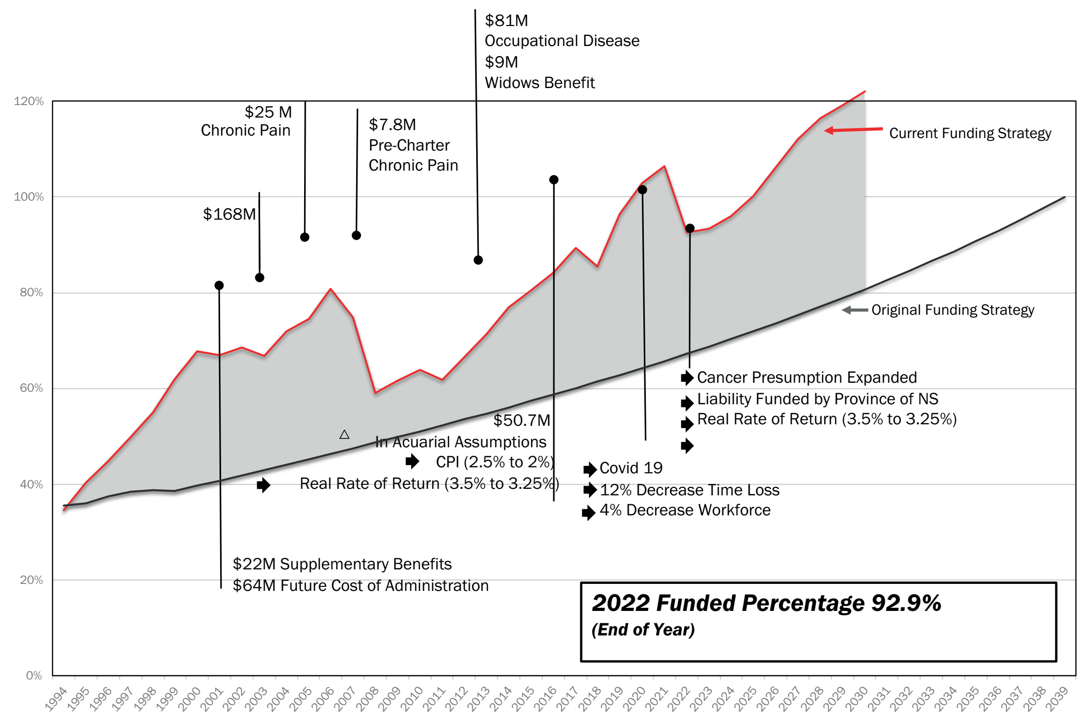
In workers' compensation, assessment revenue should roughly equal current year costs, otherwise transfers to or from future or past employers are occurring. These intergenerational transfers from past employers to future employers should no longer be required; however preserving our financial health will require mitigation strategies including a continued stabilization charge on rates. Approximately $0.40 (2022) of the assessment rate was set aside to absorb the shortfall between investment income and the growth in the benefits liability, and to strengthen the WCB's funded position, as a result of the favourable experience gain on other than pension benefits and the higher than expected payroll base. If targeted performance indicators and investment returns are achieved as expected, $0.27 of the assessment rate will be used to stabilize our funded position in 2024. The decisions we make now are important not only for the employers we cover today, but for generations in the future.

In a system with a funded liability, investment income should be expected to equal liability requirements. That is, the invested funds should increase at a rate equal to the increase in the liability. In 2022, investments lost ground and fell well short of the liability requirement by $284.3 million. We expect the loss in 2022 will be recovered through higher returns over the next five to ten years resulting in an average of 6 per cent over the long term and with some years greater or less than the 6 per cent.

Future Claims Costs and Potential Savings

Real changes in claims costs incurred, excluding inflation, may result from the following factors:

1. **The benefit structure** contained in the Workers' Compensation Act, which is the governing legislation. Court decisions, legislative reviews, emerging issues and resulting legislation periodically change coverage. For example, in 2003, a court decision relating to chronic pain benefits had a significant impact on the unfunded liability and on the estimated claims costs incurred for current and future years. In 2013, legislation was introduced to extend additional retroactive benefits to survivors whose benefits were terminated upon remarriage. These and other changes that have increased the benefits liabilities are chronicled below:



2. **Actuarial and accounting standards** for reporting liabilities of Workers' Compensation Benefits. In 2013, the Actuarial Standards Board adopted a new standard of practice requiring an estimation of liabilities for occupational disease during the latency period. In prior periods, the liability only included an amount for occupational disease confirmed through diagnosis. This change had a significant impact on the benefits liabilities and, to a lesser extent, on the claims cost incurred.

3. **The number and severity of injuries**, which occur in work places across the province. This is normally correlated with the real growth in the economy but also reflects to some degree the shift

between different sectors of the economy. This is important, as certain sectors are subject to more workplace injuries than other sectors. In addition, there is an ongoing increase in the type of injuries from physical to psychological in nature. In order for the WCB to achieve the targeted results, it is critical that work places across the province embrace prevention and return to work and work with the WCB to improve claim outcomes.

4. **Administrative processes** can have a significant impact on claims costs incurred, primarily due to changes in the way that claims are administered. For example, the WCB's early engagement philosophy is anticipated to reduce claims costs incurred over time by shortening durations for the average claim and reducing the number of claims going on to long term disability. However, this philosophy of increased early support has increased some costs as we look more broadly to determine how we might assist injured workers to return to work in a safe and timely manner. These expenses are intended to reduce overall costs by helping injured workers return to work.

5. **The Covid 19 Pandemic** introduced new areas of uncertainty. The global economic shutdown had an impact on investments, assessment revenue and claims costs. Supply chains were impacted, wages increased significantly and inflation reached levels not seen since the 80's. The World Health Organization has declared an end to the global pandemic, however the fallout could be felt for years to come.

6. As mentioned previously, the pace of long term awards remained high in 2022. As we work through a backlog of claims and bring to conclusion a number of traumatic psychological injuries the increased volume of long term awards will continue to generate unfavourable experience adjustments and slowdown annual claims cost savings in 2023. The increasing incidence of traumatic psychological injuries and potential legislation around chronic stress could generate a permanent significant increase in long term awards in future years. This will be reviewed with our external actuary as we gain more experience with these claims. The potential to reduce long term benefit costs seems reasonable and achievable given Nova Scotia's experience relative to other jurisdictions. In 2021, the number of injured workers receiving wage loss benefits six years after the injury was the highest among all the provinces in Canada, (the most recent metric available for Canada).

   The current years' experience led to a notable decrease in Time-Loss Days Paid per 100 Covered Employees. However, continued uncertainty suggests that substantially improved outcomes will take longer to emerge. Our new estimates are based on the assumption that improvements will continue in 2023 and that Time-Loss Days Paid per 100 Covered Employees will decrease to 210 days1 by the end of 2028 (from 291 in 2022). Over time, the portion of the rate used to cover current year benefit costs is expected to decrease from $1.79 in 2023 to $1.73 in 2028. Note the estimated costs of benefits in 2022 is $1.73. This unusually low amount is the result of significant increases in payroll. Costs are expected to increase in proportion to the increase in payroll after a short lag. The targeted outcomes will be achieved through a continued focus on prevention and return to work including specialized programs to improve outcomes on traumatic psychological injuries.

   In 2022, the administrative portion of the rate was $0.47; a decrease of $0.03 from the 2021 amount of $0.50. Again, the notable increase in payroll is a factor in this decrease. Significant resource investments in 2023 and 2024 to successfully manage psychological claims will increase the administrative budget and will lead the administrative portion of the rate to $0.63 in 2024 decreasing to $0.59 in 2028.

The base case currently reflects a combined cost of claims and administration of $2.38 for 2024, gradually decreasing to $2.32 in 2028. The probability of achieving these estimates will be significantly improved based on the system investments we have made. As per the current version of the plan, the excess available to improve our funded position in 2024 will be $0.27. With a rate of $2.65, the excess available in 2028 is estimated to $0.33.

Factors Considered

Funding of the Workplace Safety and Insurance System (WSIS) reflects the balance struck between the level of benefits, rates charged to employers and the WCB's funding position.

When financial results were different than the target, whether better or worse, there were three possible courses of action: adjust benefits to workers, adjust rates paid by employers or increase or decrease the time period over which the unfunded liability is to be eliminated. As the level of benefits is set by the Legislature, subject to interpretation by the Courts, the funding equation is not entirely within the control of the WCB as the neutral administrator.

Many of the variables that influence the funding plan, such as CPI, economic activity and investment returns, are outside the control of the WCB and can be subject to significant variability. While we make every effort to provide reasonable estimates, there are times when extraordinary events can occur that can have a significant impact on the funding plan.

Factors to consider when constructing a strategy to achieve financial sustainability:

1. Stability – the current model is built on the premise that regardless of the rate strategy selected, employers prefer to have some certainty and a long term outlook with respect to the direction rates are heading as opposed to a significant amount of volatility.

2. Competitiveness - at more than 2 1/2 per cent of payroll, Nova Scotia rates are viewed as the highest rates in the country while providing among the lowest benefits to individuals. However, this is only part of the story as comparisons do not take into account key differences across jurisdictions. For example, Nova Scotia covers 74 per cent of the payroll base and this results in a higher rate than those that provide universal coverage. It is also worth noting that in some industries, Nova Scotia actually has the lowest rates in Canada.

3. Policy in the context of an unfunded liability – the existence of a large unfunded liability tended to have a dramatic impact on any significant policy or financial initiative of the WCB or the Legislative Assembly when considering new legislation. The WCB's updated Strategic Plan for 2024-2030 will include strategic considerations for system reforms that may result in benefit enhancements and rate reductions. This will likely result in fluctuations in the funding percentage and will make negative economic downturns more difficult to recover from all else equal.

4. Intergenerational transfers – when the unfunded liability is eliminated once and for all, intergenerational transfers between employers can be limited if strategies are adopted to mitigate the risk of falling outside specified funding ranges in future years.

5. Security - the potential for liabilities to exceed assets in future will call into question the sustainability of the fund and the security of future benefits.

Rationale for Key Assumptions

A key point to emphasize throughout the discussion of the estimates used in establishing the funding strategy is the interdependence of various assumptions.

In some cases, the relationship between two or more assumptions plays a more significant role in the projections than the choice of individual assumptions. For example, when determining the assessment rate required to fund the cost of future injuries, it is the relationship between the rate of claims cost increase and assessable payroll growth rate that is more important than either of the individual rates. Therefore, it is important to take care in setting both individual assumptions and the relationships among the various assumptions.

The rationale for the various assumptions proposed is as follows:

1. **Consumer Price Index Assumption**

Based on an analysis of CPI using a running 10-year, 20-year and 30-year average, the long term assumption for CPI is 2.0 per cent.

For planning, the Conference Board of Canada's forecast as of May 2023 indicates the following inflation rates for Nova Scotia:

2023	2.55%
2024	2.09%
2025	2.10%
2026	2.00%
2027	2.01%
2028	2.02%

The long term assumption of 2.0 per cent is considered the most relevant for the Workers' Compensation Board's long term financial planning, as we are primarily concerned with specific components of inflation; wages and health care costs, rather than the general inflation rate. We will monitor the economic forecasts for long term inflation.

2. **Claims Costs Incurred**

The original funding strategy assumed claims costs incurred would grow at the rate of inflation (CPI) except for health care costs which would grow at CPI plus 0.5 per cent. Our assumptions changed over the years to reflect experience. Going forward we assume health care costs will grow at CPI plus 2.25 per cent with all other benefits growing at CPI + 1 per cent.

3. **Assessable Payroll**

In Nova Scotia over the 40-year period of 1982 to 2021, claims costs incurred and administration costs have grown at a compound rate of 6 per cent while assessable payroll has grown at 4 per cent. While the administration budget did grow in the period, the main source of increase in Nova Scotia was claims costs; a result of the implementation of the new earnings loss system in 1996.

In order to grow our funded position, the trend of growth in costs exceeding growth in payroll in Nova Scotia must reverse. From 2022 to 2027 growth in payroll will have to exceed growth in costs. Targeted reductions in the frequency and duration of claims will have to materialize in order to achieve this goal.

The Average Assessment Rate Table in Appendix A indicates the importance of the relationship between the rate of growth of claims costs incurred and assessable payroll. If payroll and costs grow as expected, the average rate for current year costs is expected to be at $2.32 in 2028; a reduction from the 2023 cost of $2.40.

4. **Real Rate of Return**

The funding strategy has a real rate of return assumption of 3.50 per cent in 2023, a change from 3.25% used last year. Analysis indicates that 3.50 per cent is a realistic real rate of return based on current portfolio and is comparable with other jurisdictions and the Canadian national average. The real rate of return coupled with our long term CPI assumption of 2.00 per cent, yields a nominal rate of 5.50 per cent. Changes in these assumptions can significantly impact the liabilities of the accident fund.

5. **Investment Returns**

Investment market volatility can create significant fluctuations in reported income in any given year. For financial statement reporting purposes all realized and unrealized gains and losses are recorded directly into income. For purposes of our funding plan, the WCB believes smoothing of investment returns more appropriately captures our long term expectations.

Our approach is to estimate investment income based on a pattern that will yield a nominal rate of return approximating 6.0 per cent over time. In 2020 we contracted Mercer to conduct an asset liability study to assess the probability of this return as related to funded position where assets equal liabilities. An integral part of the study was centered on expected investment returns., with an average of 6.0 per cent per year will be achieved when averaged over the long term.

6. **Mortality**

The mortality assumption that underlies the calculation of liabilities and claims costs incurred for long-term disability and survivors' pensions will also influence the projections. The 2022 benefits liability valuation utilizes the 1983 Group Annuitant Mortality Table (with 10% margin) as the basis underlying liabilities under those categories for which a mortality assumption has been made. There are newer versions of the Group Annuitant Mortality Table and it is prudent to review the reasonableness of the mortality assumption from time to time. Given the general trend over recent years to increased life expectancies, it is possible that future valuations will feature actuarial adjustments in respect of mortality. Such adjustments, in the absence of other offsetting adjustments, would lead to increases in both liabilities and claims costs incurred projections. However, the magnitude of such adjustments would be small (less than one percent of benefits liabilities) as the largest component of long term disability costs relates to extended earnings replacement benefits payable to age 65. The current table assumes virtually all earnings loss award recipients will collect benefits until age 65. A change in the group annuitant mortality table will therefore impact only the costs associated with permanent impairment awards which are becoming a smaller portion of total long term disability costs.

Key Areas of Uncertainty

There are key areas of uncertainty that the WCB considers when it deliberates with respect to the funding strategy. Some of these areas of uncertainty include:

1. **Changes in the Provincial Economy**

   A combination of factors including the Conference Board of Canada projections were used to estimate the size of the Nova Scotia workforce for the next several years.

   In 2022, the workforce increased by 3.6 per cent and is well above pre-pandemic levels. In 2023, we have assumed additional growth in the workforce along with a 3% increase in average wages. A significant variance from this assumption would have a material impact on the plan.

2. **Long Term Disability Costs**

   The plan includes a series of assumptions around reductions in costs available through improvements in durations and return to work outcomes. Beyond the savings noted, no other provisions have been made to claims costs incurred or the benefits liability that may result from actual experience in earnings loss.

3. **Legislative Framework**

   The claims costs incurred side of the funding equation is driven primarily by legislative decisions with respect to benefit levels. The March 2002 report titled “The Nova Scotia Workers’ Compensation Program, A Focused Review” (The Dorsey Report) contained recommendations for program enhancements. Changes, such as increases in indexing, increases in maximum assessable earnings, and elimination of the three-worker rule are considered longer-term objectives and are not considered in the foundation scenario.

4. **Inflation**

   The Workers’ Compensation Act prescribes a partial indexing formula to be applied to clinical rating system (CRS) pensions, permanent impairment benefits (PIB), and extended earnings replacement benefits (EERB). Due to partial indexing, CPI increases that differ from the long term assumption represent a risk to the accident fund. This occurs because inflationary increases to benefits are calculated at 50 per cent of CPI. If CPI is higher than expected, the gap between actual CPI and the indexing applied to benefits is larger resulting in lower than expected increases to the benefits liability. If CPI is lower than expected, the difference between actual CPI and the amount of indexing applied to benefits is smaller and would therefore result in higher than expected increase in the benefits liabilities.

5. **Coverage for New Conditions**

The cost estimates assume that there will be no change in the WCB's policy, practice, or experience and that there will be no coverage for new conditions. Any provision for new benefit costs flowing from judicial decisions, legislative amendments, and/or changes in WCB policy except as expressly noted in this document will require revisions to the funding strategy. For example, extending benefit entitlement for chronic stress will require revision to the funding strategy.

6. **Financial Reporting Standards**

The financial statements of the WCB are prepared in accordance with International Financial Reporting Standards (IFRS) for publicly accountable entities as at December 31, 2021. Two of the more significant standards that impact the WCB include accounting for investments and liabilities recorded at market value.

Since 2004, the WCB has recorded investments at market value. The adoption of IFRS in 2011 had no impact on net income. However the recording of unrealized gains now flows directly into investment income rather than through other comprehensive income.

IFRS standard17 – Insurance Contracts will require that liabilities be recorded at fair market value beginning in 2023. This standard will have material impacts for the WCB's financial reporting by introducing new recognition and measurement approaches for insurance revenue and liabilities that could impact the funded position significantly.

More specifically, under this standard, the basis of accounting for the benefits liabilities will change to fair value utilizing a market based discount rate. At the end of 2022, this would have decreased the financial statement funded ratio from 92.5 per cent to 89.6 per cent.

The liabilities are currently measured on a going-concern funding basis,using the expected long-term return on the assets backing the liabilities as the discount rate. Upon adopting the IFRS17 standard, the liabilities will be measured on a current market-value basis, using a market-based discount rate that can fluctuate significantly from period to period. In order to foster stable rates and align with the Board's investment strategy, the WCB will continue to use the going concern funding measure of its liabilities in the funding strategy for planning and rate setting purposes.

Although the Funding Strategy clearly labels assumptions as such, many users may credit the strategy with more certainty and precision than warranted given the number and nature of assumptions it contains. Users are reminded that the Funding Strategy is our best estimate of what will happen given the assumptions. As noted in previous Annual Reports and the Funding Strategy, actual results will differ from the projections and these differences may be material.

Appendix A
2024–2023 Financial Projections

Workers' Compensation Board of N.S.
Projected Statement of Operations

	2022 Actual	2023 O. Budget	2023 Forecast	2024 Budget	2025 Projection	2026 Projection	2027 Projection	2028 Projection
Revenue								
Assessments – Regular Classified	$432,689,000	$372,727,000	$392,896,000	$406,555,000	$418,495,000	$432,031,000	$446,072,000	$460,570,000
Assessments – Self Insured	$7,801,000	$7,500,000	$7,500,000	$7,500,000	$7,500,000	$7,725,000	$7,957,000	$8,195,000
Investment Income	($175,263,000)	$145,773,000	$141,120,000	$149,460,000	$211,289,000	$277,015,000	$296,849,000	$268,041,000
	$265,227,000	$526,000,000	$541,516,000	$563,515,000	$637,284,000	$716,771,000	$750,878,000	$736,806,000
Claim Costs	$241,059,000	$247,011,000	$261,857,000	$256,817,000	$273,350,000	$281,252,000	$290,309,000	$300,042,000
Growth PV of Limited Liability	$108,989,000	$123,710,000	$126,139,000	$132,445,000	$139,069,000	$146,021,000	$153,322,000	$160,988,000
Administration Costs*	$63,769,000	$74,195,000	$76,941,000	$80,262,000	$81,484,000	$83,254,000	$85,020,000	$86,843,000
Liability for Future Administrative Costs	($2,207,000)	($2,000,000)	($2,000,000)	($2,000,000)	($2,000,000)	($2,000,000)	($2,000,000)	($2,000,000)
OCI OPEDs Actuarial Gains/Losses	($8,335,000)	$0	$0	$0	$0	$0	$0	$0
Legislated Obligations	$19,017,000	$21,678,000	$21,476,000	$22,741,000	$23,659,000	$23,659,000	$24,133,000	$24,615,000
System Support	$999,000	$1,100,000	$1,100,000	$1,439,000	$1,497,000	$1,497,000	$1,527,000	$1,558,000
Actuarial Experience Adjustments	$167,587,000	$0	$45,000,000	$0	$0	$0	$0	$0
	$590,932,000	$456,694,000	$530,514,000	$501,704,000	$533,683,000	$533,683,000	$552,311,000	$572,046,000
Comprehensive Income (Loss)	($325,705,000)	$60,306,000	$11,002,000	$61,811,000	$183,088,000	$183,088,000	$198,567,000	$164,760,000

*Excludes Total Capital

	2022 Actual	2023 O. Budget	2023 Forecast	2024 Budget	2025 Projection	2026 Projection	2027 Projection	2028 Projection
(Unfunded Liability) / Surplus, End of the Year	($179,234,000)	$70,421,000	($167,227,000)	($105,227,000)	$16,142,000	$199,920,000	$399,218,000	$564,753,000
Funded Ratio, End of the Year	92.9%	102.8%	93.7%	96.2%	100.6%	106.5%	112.4%	116.7%

Notes:

1) The average assessment rate used to calculate revenue is $2.65 through 2028

1) It is important to note that these cost estimates assume that there will be no change in the WCB's policy, practice, or experience and that there will be no coverage for new conditions. Any provision for new benefit costs flowing from judicial decisions, legislative amendments, and/or changes in WCB policy except as expressly noted in this document will require revisions to the funding strategy.

1) The statement of Operations reflects the administrative expenses net of an adjustment for the liability for future administrative expenses. This adjustment is approximately 6% of the difference between claim costs incurred (CCI) and claims payments made (CPM).

1) Based on administrative budget assumptions and funding strategy projections (Funding Strategy – May, 2023).

1) As of January 1, 2018 the WCB has adopted IFRs 15 as related to revenue recognition. The change impacts revenue and claims costs incurred for self-insured employers. In previous years, reported revenue included amounts billed to self-insured firms to reimburse claim costs. Beginning in 2018, neither the claims costs nor the offsetting revenue will be reflected in the statement of operations. Only the administration fee billed to self-insured employers will be recorded as revenue in 2018 and future years.

Average Assessment Rate

	Claims Cost Incurred and Admin	Shortfall* and Unfunded Liability	Total
2022	$2.20	$0.40	$2.60
2023	$2.40	$0.25	$2.65
2024	$2.38	$0.27	$2.65
2025	$2.35	$0.30	$2.65
2026	$2.34	$0.31	$2.65
2027	$2.33	$0.32	$2.65
2028	$2.32	$0.33	$2.65

Appendix B

Current Funding Strategy & Assumptions

Rate of $2.65
Administration and Legislated Obligations Budget 2024–2028
Payroll Growth (Per Target Assumptions)
Claims Cost Incurred and Investment Income -Per Target Assumptions

Workers' Compensation Board of Nova Scotia

Calendar Year	Total Assessment Rate	Assessable Payroll ($millions)	Total Revenue ($millions)	Assessment Revenue ($millions)	Assessment Penalties ($millions)	Self Insured Admin Fee ($millions)	Investment Revenue ($millions)	Recognized Inv Revenue ($millions)	Change in CCI Investments 2004–2010	Smoothing of Investments ($millions)	Gross Interest Rate	Recognized Interest Rate	Admin & Leg. Obl ($millions)	Change in OCI Post-Employment Benefits 2012...
2011	2.67	9,354	266.355	249.419	1.042		15.894	15.894	–	0.00	7.00%	7.00%	51.802	
2012	2.65	9,483	368.395	250.917	0.968		116.510	116.510	–	0.00	6.50%	6.50%	48.410	0.887
2013	2.66	9,627	447.046	255.766	1.054		190.226	190.226	–	0.00	6.50%	6.50%	51.705	2.769
2014	2.67	9,958	403.291	266.970	1.050		135.271	135.271	–	0.00	6.00%	6.00%	56.747	-3.770
2015	2.65	10,236	344.553	273.715	1.100		69.738	69.738	–	0.00	6.00%	6.00%	57.872	3.661
2016	2.65	10,502	379,933	278.667	1.196		100.070	100.070	–	0.00	6.00%	6.00%	61.107	(0.867)
2017	2.66	10,880	451.998	287.421	1.335		163.242	163.242	–	0.00	5.25%	6.00%	63.346	-1.400
2018	2.65	11,281	280.276	296.891	1.487	7.151	(25.253)	(25.253)	–	0.00	5.25%	6.00%	73.920	5.409
2019	2.66	11,673	565.514	311.847	0.841	7.352	245.474	245.474	–	0.00	5.25%	6.00%	77.661	(4.495)
2020	6.68	11,677	497.223	305.822	0.009	8.108	183.284	183.284	–	0.00	5.25%	6.00%	77.606	(3.221)
2021	2.60	12,693	552.696	334.618	0.000	7.777	210.301	210.301	–	–	5.25%	6.00%	82.163	10.420
2022	2.60	13,958	265.227	432.689	0.000	7.801	(175.263)	(175.263)	–	–	5.50%	6.00%	81.632	8.335
2023	2.65	14,664	542.095	392.896	0.000	7.500	141.699	141.699	–	–	5.50%	6.00%	97.517	
2024	**2.65**	**15,179**	**564.129**	**406.555**	**0.000**	**7.500**	**150.074**	**150.074**	**–**	**–**	**5.50%**	**6.00%**	**102.442**	
2025	**2.65**	**15,713**	**637.935**	**417.495**	**1.000**	**7.500**	**211.940**	**211.940**	**–**	**50.00**	**5.50%**	**6.00%**	**104.147**	
2026	**2.65**	**16,265**	**717.461**	**431.031**	**1.000**	**7.725**	**277.705**	**277.705**	**–**	**100.00**	**5.50%**	**6.00%**	**106.410**	
2027	**2.65**	**16,795**	**751.609**	**445.072**	**1.000**	**7.957**	**297.581**	**297.581**	**–**	**100.00**	**5.50%**	**6.00%**	**108.680**	
2028	**2.65**	**17,342**	**737.582**	**459.570**	**1.000**	**8.195**	**268.817**	**268.817**	**–**	**50.00**	**5.50%**	**6.00%**	**111.017**	
2029	2.65	17,907	722.443	474.540	1.000	8.441	238.462	238.462	–	–	5.50%	6.00%	114.348	
2030	2.65	18,491	756.089	489.999	1.000	8.695	256.396	256.396	–		5.50%	6.00%	117.778	

Rate of $2.65

Administration and Legislated Obligations Budget 2024–2028

Payroll Growth (Per Target Assumptions)

Claims Cost Incurred and Investment Income -Per Target Assumptions

Workers' Compensation Board of Nova Scotia

Calendar Year	Total Assessment Rate	LTD ($millions)	Survivors ($millions)	TERB ($millions)	Rehab Income ($millions)	Health Care ($millions)	Rehab Non-Income ($millions)	Total Incurred Claims ($millions)	Total Incurred Claims plus Admin. ($millions)	Growth in PV of Liab. ($millions)	Adj. to Ben. Liab. ($miilions)	BOY Estimated Liabilities ($000s)	BOY Estimated OCI ($000s)	BOY Estimated Assets ($000s)	BOY Gross UL-Funded ($000s)	BOY Net UL-Funded ($000s)	BOY Estimated Funded Percentage	Surplus (Deficit) From Op's ($000s)	Total Comp. Income ($000s)
2011	2.67	74.763	1.873	26.244	0.000	47.183	0.829	160.892	212.694	112.638	6.538	1,662,617	0	1,061,407	601,090	601,090	63.84%	-65,515	-65,515
2012	2.65	79.586	2.151	34.535	0.000	49.035	0.861	166.168	215.465	117.833	(26.234)	1,742,566	0	1,075,961	666,605	666,605	61.75%	61,331	62,218
2013	2.66	84.424	3.578	22.789	0.000	48.761	0.992	171.544	226.018	112.537	61.871	1,802,865	0	1,198,478	595,877	604,387	66.48%	49,389	52,158
2014	2.67	84.460	2.133	34.468	0.000	48.991	0.866	170.918	223.895	116.367	(42.301)	1,929,019	0	1,376,790	546,488	552,229	71.37%	101,560	97,790
2015	2.65	84.148	1.373	35.836	0.000	49.089	0.813	171.259	229.131	107.571	(61.059)	1,965,686	0	1,511,249	444,927	454,437	76.88%	68,910	72,571
2016	2.65	89.222	1.936	36.777	0.000	51.501	0.754	180.190	241.297	108.682	(35.154)	1,963,391	0	1,581,525	376,017	381,666	80.55%	65,108	64,241
2017	2.66	92.528	1.591	38.418	0.000	53.125	0.704	186.366	249.712	111.809	(11.247)	2,002,025	0	1,684,400	310,909	317,625	84.13%	101,724	100,324
2018	2.65	101.054	2.792	41.027	0.000	56.280	0.883	202.036	275.956	98.672	(2.453)	2,043,629	0	1,826,329	209,185	217,301	89.37%	-91,899	-86,490
2019	2.66	93.388	2.660	46.368	0.000	59.612	0.812	202.840	280.501	101.220	(50.329)	2,100,431	0	1,796,640	301,084	303,791	85.54%	234,122	229,627
2020	2.68	97.095	2.014	48.651	0.000	55.315	0.786	203.861	281.467	101.217	(24.939)	2,120,986	-7,202	2,046,822	66,962	74,154	96.50%	139,478	136,257
2021	2.60	108.395	1.347	57.215	0.000	66.064	0.767	233.788	315.951	102.588	60.199	2,148,269	-10,423	2,210,362	-72,516	-62,093	102.89%	73,958	84,378
2022	2.60	115.573	1.751	58.402	0.000	64.620	0.713	241.059	322.691	108.989	167.587	2,285,847	-3	2,432,318	-146,474	-146,471	106.41%	-334,040	-325,705
2023	2.65	134.040	1.804	55.913	0.000	69.366	0.734	261.857	359.374	126.139	45.000	2,522,789	8,332	2,343,555	187,566	179,234	92.90%	11,582	11,582
2024	**2.65**	**138.061**	**1.858**	**53.827**	**0.000**	**72.314**	**0.756**	**266.817**	**369.259**	**132.445**	**–**	**2,648,928**	**8,332**	**2,481,276**	**175,984**	**167,652**	**93.67%**	**62,425**	**62,425**
2025	**2.65**	**142.203**	**1.913**	**53.067**	**0.000**	**75.388**	**0.779**	**273.350**	**377.497**	**139.069**	**–**	**2,781,373**	**8,332**	**2,676,146**	**113,560**	**105,228**	**96.22%**	**121,369**	**121,369**
2026	**2.65**	**146.469**	**1.971**	**53.418**	**0.000**	**78.592**	**0.802**	**281.252**	**387.662**	**146.021**	**–**	**2,920,442**	**8,332**	**2,936,584**	**-7,810**	**-16,142**	**100.55%**	**183,778**	**183,778**
2027	**2.65**	**150.863**	**2.030**	**54.657**	**0.000**	**81.932**	**0.827**	**290.309**	**398.989**	**153.321**	**–**	**3,066,463**	**8,332**	**3,266,383**	**-191,588**	**-199,919**	**106.52%**	**199,299**	**199,299**
2028	**2.65**	**155.389**	**2.091**	**56.297**	**0.000**	**85.414**	**0.851**	**300.042**	**411.059**	**160.987**	**–**	**3,219,784**	**8,332**	**3,619,003**	**-390,887**	**-399,219**	**112.40%**	**165,536**	**165,536**
2029	2.65	160.051	2.154	57.986	0.000	89.044	0.877	310.112	424.459	169.039	–	3,380,771	8,332	3,945,526	-556,422	-564,754	116.70%	128,946	128,946
2030	2.65	164.853	2.218	59.726	0.000	92.828	0.903	320.528	438.306	177.490	–	3,549,810	8,332	4,243,510	-685,368	-693,700	119.54%	140,292	140,292