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

2023 Funding Strategy

With financial projections 2023–2027

Prepared by the Finance, Audit and Risk Committee June 20, 2022

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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 and 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. In 2021, there were sufficient invested assets to fund these past claims. Prior to 2020, the invested assets were not sufficient to fund these past claims and this shortfall was the unfunded liability.

With the elimination of the unfunded liability, we will focus our attention on strengthening our funded position while providing stability in terms of assessment and benefit rates. As we consider a stable funded range for the workers and employers of today and tomorrow, a long term view and financial prudence have simply never been more important. Small changes in investment returns, actuarial experience or unexpected shocks to the system could create volatility in our funded position.

We will continue to strengthen our financial position holding the average assessment rate at $2.65/$100 of payroll in 2023 as this exceeds the rate required to fund current operations.

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.

Following the global pandemic, the covered workforce in Nova Scotia has largely recovered. Supply chain issues, labour shortages, and global unrest has generated high inflation that will likely lead to increased wages. The size of the workforce will impact both time loss claims and payroll in 2023 while increased wages will impact both payroll and benefit costs.

Investment returns were notably above the expected 6 per cent return in 2021. Investment markets in the first four months of 2022 have been volatile with market declines noted in major market indices. The probability of achieving a 6 per cent return in 2022 is uncertain, and for purposes of the funding strategy, we are assuming investments will not earn income in 2022. A zero return in 2022 smooths excess returns of prior years. The estimated impact reduces the funded ratio to about 100 per cent at the end of 2022. Further updates may be required, as the full impact of the investment returns become known.

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. These wide fluctuations in investment returns demonstrate how results can vary over a short period of time and the impact this can have on the funded position.

The 2023 foundation scenario includes allowances for increases in annual claims costs incurred to reflect the impact of changes in processes and technology, psychological impairments that can significantly challenge return to work, and an increase in the number of cancers covered under the presumption for firefighters (with an equal offset in revenue).

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 $1.81 to $1.72 from 2022 to 2027 while the administrative portion is expected to decrease from $0.61 to $0.57 over the period. The targeted outcome will be achieved through our strategic continued focus on prevention and return to work along with investments in staffing and programs to improve outcomes on traumatic psychological injuries.

The base case currently reflects a combined cost of claims and administration $2.43 in 2022 decreasing to $2.30 in 2027. 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 2022 will be $0.22. With a rate of $2.65, the excess available in 2027 would be $0.35.

The proposed 2023 Administrative, Legislated Obligations and System Support budget of $103.1 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 $60.8 million is projected for 2023; 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, overtime the assumption has aligned. In 2021, the portfolio returned 9.7 per cent. Cumulative returns have been positive in recent years with the annualized 10-year return as of December 2021 of 9.0 per cent. On balance, for the period 1995 to 2021, investment returns averaged 7 per cent per annum; exceeding our long term assumption of 6.0 per cent. Over the last 20 years, investments returns averaged 6.3 per cent annually.

Now that we have eliminated the unfunded liability, 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, 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 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 exceeded original estimates significantly. Overall, elimination of the unfunded liability occurred 19 years sooner than expected.

Financial progress over the past several years has been encouraging though there are many factors that can influence the funding strategy. Assets exceeded liabilities by $146.5 million at the end of 2021. This represents a funded ratio of about 106 per cent. The long term impacts of the global pandemic, ongoing unrest in Europe, and inflation concerns could have a significant impact on investment returns and is a risk that requires mitigation. For example, expected investment returns of 0 per cent in 2022 will eliminate the full surplus resulting in a funded ratio of 100 per cent.

As caution, the funded position will fluctuate in coming years, and will almost certainly hover above and below 100 per cent. Therefore, ensuring a sufficient funded margin is integral to funding our future.

The WCB's updated Strategic Plan for 2021-2023 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 could 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 2023, we have constructed a foundation scenario incorporating recent results, assumptions on future performance and working toward long term financial stability;

The target for total revenues for 2023 is $525.9 million based on:

- a projection for insured firms' assessable payroll of $13.9 billion, yielding assessment revenue of $372.7 million,
- investment income of $145.7 million, and
- revenue from self-insured employers of $7.5 million (administration fee).

In 2023, the excess of assets over liabilities is expected to increase by $60.8 million, improving the funded position to 103%. This results from the total revenue target of $525.9 million minus

- claim costs of $247.0 million (insured claims),
- the growth in present value of the benefits liability of $123.7 million,
- administrative costs of $73.6 million,
- adjustment for future administration costs reducing liabilities by $(2) million , and
- legislated obligations and system support of $22.8 million.

Additional key projection assumptions made in the funding strategy for 2023 and onward include:

- Gross Interest Rate of 5.25 per cent per annum,
- Investment Income of 0% in 2022; 6 per cent thereafter,
- Consumer Price Index (CPI) of 2 per cent,
- Continued progress on savings targets arising from investments in prevention, return to work and service delivery,
- Average assessment rate is $2.65, holding constant until financial sustainability is defined and achieved.

Long-term disability is the WCB's largest cost area. Following several years of decreased volume, the 716 (653 insured) EERBs awarded in 2021 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 period. For example, the global pandemic led to a sudden and unexpected 4 percent 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 30 per cent of the total claims costs incurred. The remaining 70 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 has 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; and in 2008 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. Given the complexity of the savings targets, the limitations of the model as noted and uncertainty around inflation and investments markets, it is advisable to hold the average rate at $2.65 as we move toward defining and adopting a reasonable funding corridor.

RECENT FINANCIAL RESULTS

The operating results for 2021 and 2020 are attributed to the following factors:

	2021 (000's)	2020 (000's)
Assessment revenue in excess of current year costs	$ 26,443	$ 32,473
Investment income above liability requirements*	107,714	82,066
Actuarial liabilities and adjustments less than previously anticipated	(60,199)	24,939
Other comprehensive income from actuarial losses on post-employment benefits	10,420	(3,221)
Total comprehensive income	$ 84,378	$ 136,257

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

As the table above indicates, 2021 delivered favourable financial results. Assessable payroll was higher than expected increasing close to 9% over 2020. Additionally, investment income exceeded the return assumptions by more than 3 per cent. An unfavourable experience adjustment to the benefits liability offset some of these gains. While this is quite favourable, the impact of global unrest, uncertainty about the long term impacts of traumatic psychological injuries, and inflation represent risks that could challenge our progress.

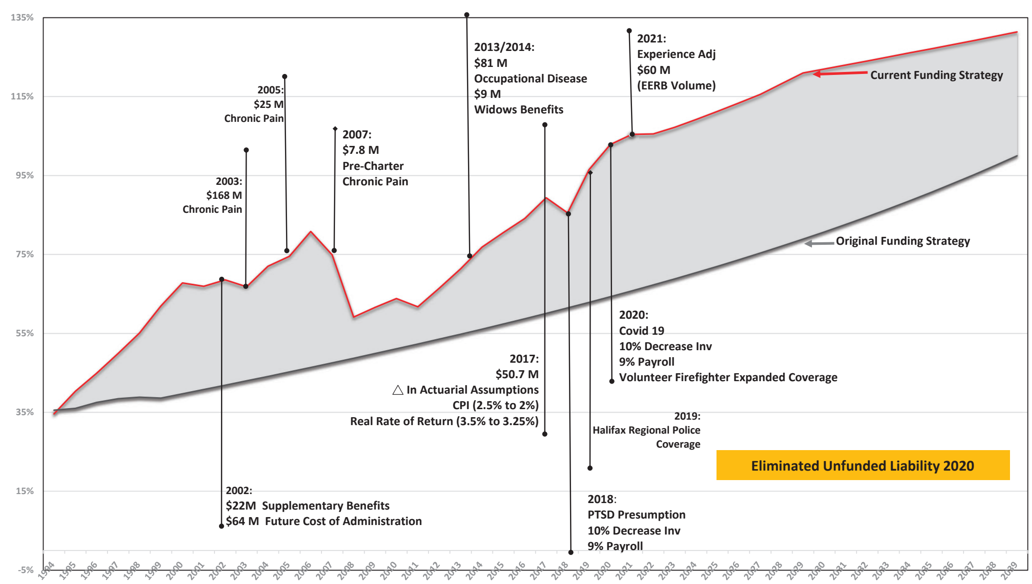
In workers' compensation, assessment revenue should roughly equal current year costs, otherwise transfers to or from future or past employers are occurring. These intergenerational transfers to current and future employers from past employers will no longer be required; however preserving our financial health will require mitigation strategies including a continued stabilization charge on rates. Approximately $0.31 (2021) of the assessment rate was set aside to absorb the shortfall between investment income and the growth in the benefits liability, and to eliminate the unfunded liability. If targeted performance indicators and investment returns are achieved as expected, $0.24 of the assessment rate will be used to stabilize our funded position in 2023. 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 2021, investments income exceeded the liability requirement by $107.7 million. We expect the higher than expected returns achieved in 2021 and prior will be eliminated in 2022. Thereafter returns average to long term expectations of 6 per cent and the required growth will be achieved.

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 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** introduces areas of uncertainty. The global economic shutdown could impact investments, assessment revenue and claims costs. There is risk that the virus will force future shutdowns and that claims will emerge for workers infected on the job or PTSD will result for front line workers treating those affected. Additionally, treatment programs, impairment assessments and job search activities have been delayed which could impact the timing of claim resolution. These could impact our corporate performance measures and return to work efforts for several years to come.

As mentioned previously, the pace of long term awards increased substantially in 2021. As we work through a backlog of work the increased volume of long term awards will continue to generate unfavourable experience adjustments and a slowdown in annual claims cost savings in 2022. Additionally, 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. The potential to reduce long term benefit costs seems reasonable and achievable given Nova Scotia's experience relative to other jurisdictions. In 2020, 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 2022 and that Time-Loss Days Paid per 100 Covered Employees will decrease to 217 days[1] by the end of 2027 (from 317 in 2021). Over time, the portion of the rate used to cover current year benefit costs is expected to decrease from $1.84 in 2021 to $1.73 in 2027. 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 2021, the administrative portion of the rate was $0.50; a decrease of $0.12 from the 2020 amount of $0.62. However, most of the decrease is the result of a decrease in the liability for employee future benefits; an adjustment not expected to recur in future years. Continued investments in 2023, along with a recovered workforce suggests the administrative portion of the rate will be within historic ranges and will range from $0.57 to $0.63 through 2027.

The base case currently reflects a combined cost of claims and administration of $2.43 for 2022, gradually decreasing to $2.30 in 2027. 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 2023 will be $0.24. With a rate of $2.65, the excess available in 2027 would be $0.35.

ADMINISTRATION COSTS AND LEGISLATED OBLIGATIONS

The proposed 2023 Administrative, Legislated Obligations and System Support budget of $103.1 million includes the investments needed to deliver the results targeted in the strategic plan. Details regarding the breakdown of operational, capital and project investments are outlined in the 2023 Operational Plan and Budget.

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** – 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 2½ per cent of payroll, Nova Scotia rates are viewed as the highest rates in the country while providing among the lowest benefits to individuals. And in some industries, Nova Scotia actually has the lowest rates in Canada. However, this is 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.

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 2021–2023 will include strategic considerations for the establishment of a sustainable funded policy.

4. **Intergenerational transfers** – now that the unfunded liability is eliminated, intergenerational transfers between employers can be avoided 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 50-year average, the long term assumption for CPI is 2.0 per cent.

   For planning, the Conference Board of Canada's forecast as of April 2022 indicates the following inflation rates for Nova Scotia:

2022	2.72%
2023	1.93%
2024	2.00%
2025	2.07%
2026	2.03%
2027	2.01%

   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 for post COVID economic recovery.

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 $2.30 in 2027; a reduction from the 2022 cost of $2.43.

4. **Real Rate of Return**

   The funding strategy has a real rate of return assumption of 3.25 per cent in 2022. Analysis indicates that 3.25 per cent is a realistic real rate of return 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 5.25 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.

   We have modeled the expected investment returns such that the long term average of 6.0 per cent per year will be achieved when averaged over the long term; however there could be variations with some years exceeding 6.0 per cent and others falling short.

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 2020 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 2021, the workforce increased by 4.8 per cent and is almost at full recovery following the global pandemic and a larger than normal increase in wages. In 2022, we have assumed slight growth in the workforce along with a 5% 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.

   It is anticipated that 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 2021, this would have decreased the financial statement funded ratio from 105.4 per cent to 87.8 per cent.

   The last change to the nominal rate assumption used for valuation purposes occurred in 2017. The revised assumptions related to CPI (2.5 per cent to 2.0 per cent) and the real rate of return (3.5 per cent to 3.25 per cent) to a combined nominal rate of 5.25 per cent – bringing us closer to the applicable rate that would be required under IFRS.

   The long term assumption used today effectively smooths the impact of fluctuations in the market value of liabilities. Upon adopting the proposed standard, smoothing will no longer be appropriate or permissible for financial statement reporting. However, the WCB may consider if smoothing of the discount rate in the funding strategy for planning and rate setting purposes. We expect that the process could be similar to that used to smooth in fluctuations in investment income.

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: 2023–2027 FINANCIAL PROJECTIONS

WORKERS' COMPENSATION BOARD OF N.S.
PROJECTED STATEMENT OF OPERATIONS

	2021 Actual	2022 Original	2022 Forecast	2023 Budget	2024 Projection	2025 Projection	2026 Projection	2027 Projection
REVENUE:								
Assessments - Regular Classified	$334,618,000	$335,865,000	$426,610,000	$372,727,000	$385,642,000	$395,811,000	$408,550,000	$420,776,000
Assessments - Self Insured	$7,777,000	$7,500,000	$7,500,000	$7,500,000	$7,500,000	$7,500,000	$7,725,000	$7,957,000
Investment Income	$210,301,000	$120,296,000	$0	$145,701,000	$157,063,000	$169,584,000	$182,974,000	$197,280,000
	$552,696,000	$463,661,000	$434,110,000	$525,928,000	$550,205,000	$572,895,000	$599,249,000	$626,013,000
Claim Costs	$233,788,000	$222,776,000	$242,710,000	$247,011,000	$252,077,000	$257,558,000	$265,359,000	$274,048,000
Growth PV of Benefits Liability	$102,587,000	$112,783,000	$117,654,000	$123,710,000	$130,077,000	$136,772,000	$143,811,000	$151,214,000
Administration Costs *	$64,310,000	$67,609,000	$69,862,000	$73,595,000	$71,207,000	$72,567,000	$74,106,000	$75,715,000
Liability for Future Administration Costs	($1,700,000)	($2,000,000)	($2,000,000)	($2,000,000)	($2,000,000)	($2,000,000)	($2,000,000)	($2,000,000)
OCI OPEBs Actuarial Gains/Losses	($10,420,000)	$0	$0	$0	$0	$0	$0	$0
Legislated Obligations	$18,533,000	$20,544,000	$20,762,000	$21,678,000	$22,111,000	$22,553,000	$23,003,000	$23,464,000
System Support	$1,021,000	$1,078,000	$1,078,000	$1,100,000	$1,122,000	$1,144,000	$1,166,000	$1,189,000
Actuarial Experience Adjustments	$60,199,000	$0	$100,000,000	$0	$0	$0	$0	$0
	$468,318,000	$422,790,000	$550,066,000	$465,094,000	$474,594,000	$488,594,000	$505,445,000	$523,630,000
EXCESS OF OPERATING /REVENUES OVER EXPENSES	$84,378,000	$40,871,000	($115,956,000)	$60,834,000	$75,611,000	$84,301,000	$93,804,000	$102,383,000

* Excludes Total Capital	2021 Actual	2022 Original	2022 Forecast	2023 Budget	2024 Projection	2025 Projection	2026 Projection	2027 Projection
Funded Position, End of Year	$146,471,000	$107,505,000	$30,516,000	$92,682,000	$169,704,000	$255,501,000	$350,890,000	$454,954,000
Funded Ratio, End of the Year	106.4%	104.5%	101.3%	103.7%	106.4%	109.1%	111.9%	114.7%

Notes:

1) The average assessment rate used to calculate revenue is $2.65 through 2027.

2) 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.

3) 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 claims costs incurred (CCI) and claims payments.

4) Based on administrative budget assumptions and funding strategy projections. (Funding Strategy - May, 2022).

5) 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 where only the administration fee billed to Self-insured employers will be recorded as revenue in 2018 and future years.

	Claims Cost Incurred and Admin	Shortfall* and Unfunded Liability	Total
2022	**$2.43**	**$0.22**	**$2.65**
2023	**$2.41**	**$0.24**	**$2.65**
2024	**$2.35**	**$0.30**	**$2.65**
2025	**$2.32**	**$0.33**	**$2.65**
2026	**$2.30**	**$0.35**	**$2.65**
2027	**$2.30**	**$0.35**	**$2.65**

*** Shortfall in investment income relative to the growth in present value of the benefits liability.**

APPENDIX B: CURRENT FUNDING STRATEGY AND ASSUMPTIONS

Rate of $2.65
Administration and Legislated Obligations Budget 2023-2027
Payroll Growth (Per Target Assumptions)
Claims Cost Incurred and Investment Income - See Assumptions Tab
CPI - 2%

Workers' Compensation Board of Nova Scotia

$ 2.65

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 ($millions)	Smoothing of Investments ($millions)	Gross Interest Rate	Admin & Leg. Obl. ($millions)	Change in OCI Post-Employmen Benefits 2012…
2011	2.67	9,354	266.355	249.419	1.042		15.894	15.894	0.00	7.00%	51.802	
2012	2.65	9,483	368.395	250.917	0.968		116.510	116.510	0.00	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%	51.705	2.769
2014	2.67	9,958	403.291	266.970	1.050		135.271	135.271	0.00	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%	57.872	3.661
2016	2.65	10,502	379.933	278.6670	1.196		100.070	100.070	0.00	6.00%	61.107	(0.867)
2017	2.66	10,880	451.998	287.4210	1.335		163.242	163.242	0.00	5.25%	63.346	-1.400
2018	2.65	11,281	280.276	296.8910	1.487	7.151	(25.253)	(25.253)	0.00	5.25%	*73.920*	5.409
2019	2.66	11,673	565.514	311.8470	0.841	7.352	245.474	245.474	0.00	5.25%	77.661	(4.495)
2020	2.68	11,677	497.223	305.8220	0.009	8.108	183.284	183.284	0.00	5.25%	77.606	(3.221)
2021	2.66	12,693	552.696	334.6180	0.000	7.777	210.301	210.301	-	5.25%	82.163	10.420
2022	**2.65**	**13,394**	**434.111**	**425.6105**	**1.000**	**7.500**	**0.000**	**0.000**	**(146.83)**	**5.25%**	**89.702**	
2023	**2.65**	**13,865**	**527.260**	**371.7270**	**1.000**	**7.500**	**147.033**	**147.033**	**-**	**5.25%**	**94.373**	
2024	**2.65**	**14,353**	**551.616**	**384.6421**	**1.000**	**7.500**	**158.474**	**158.474**	**-**	**5.25%**	**92.440**	
2025	**2.65**	**14,857**	**574.391**	**394.8111**	**1.000**	**7.500**	**171.080**	**171.080**	**-**	**5.25%**	**94.264**	
2026	**2.65**	**15,379**	**600.835**	**407.5501**	**1.000**	**7.725**	**184.559**	**184.559**	**-**	**5.25%**	**96.275**	
2027	**2.65**	**15,841**	**627.694**	**419.7766**	**1.000**	**7.957**	**198.961**	**198.961**	**-**	**5.25%**	**98.368**	
2028	2.65	16,316	655.863	432.3699	1.000	8.195	214.297	214.297		5.25%	101.319	

Rate of $2.65
Administration and Legislated Obligations Budget 2023-2027
Payroll Growth (Per Target Assumptions)
Claims Cost Incurred and Investment Income - See Assumptions Tab
CPI - 2%

Workers' Compensation Board of Nova Scotia

Calendar Year	LTD ($millions)	Survivors ($millions)	TERB ($millions)	Rehab Income ($millions)	Health Care ($millions)	Rehab Non-Incon ($millions)	Total Incurred Claims ($millions)	Total Incurred Claims plus Admin. ($millions)	Growth in PV of Liab ($millions)	Adj. To Ben. Liab. ($millions)	BOY Estimated Liabilities ($000s)	BOY Estimated OCI ($000s)	BOY Estimated Assets ($000s)	BOY Gross UL -Funded) ($000's)	BOY Net UL - Funded ($000's)	BOY Estimated Funded Percentage	Surplus (Deficit) From Op's ($000's)	Total Comp. Income ($000's)
2011	74.763	1.873	36.244	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	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	84.424	3.578	33.789	0.000	48.761	0.992	171.544	226.018	112.537	61.871	1,802,865		1,198,478	595,877	604,387	66.48%	49,389	52,158
2014	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	84.148	1.373	35.8360	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	89.222	1.936	36.777	0.00	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	92.528	1.591	38.418	0.00	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	101.054	2.792	41.027	0.00	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	93.388	2.660	46.368	0.00	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	97.095	2.014	48.651	0.00	55.315	0.786	203.861	281.467	101.217	(24.939)	2,120,986	-7,202	2,046,822	66,962	74,164	96.50%	139,478	136,257
2021	108.395	1.347	57.215	0.00	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	**113.647**	**1.387**	**58.014**	**0.00**	**68.872**	**0.790**	**242.710**	**332.412**	**117.654**	**100.000**	**2,285,847**	**-3**	**2,432,318**	**-146,474**	**-146,471**	**106.41%**	**-115,955**	**-115,955**
2023	**117.056**	**1.429**	**55.913**	**0.00**	**71.799**	**0.814**	**247.011**	**341.384**	**123.710**	**-**	**2,403,501**	**-3**	**2,434,017**	**-30,519**	**-30,516**	**101.27%**	**62,166**	**62,166**
2024	**120.568**	**1.472**	**54.349**	**0.00**	**74.850**	**0.838**	**252.077**	**344.517**	**130.077**	**-**	**2,527,211**	**-3**	**2,619,893**	**-92,685**	**-92,682**	**103.67%**	**77,023**	**77,023**
2025	**124.185**	**1.516**	**52.963**	**0.00**	**78.031**	**0.863**	**257.559**	**351.822**	**136.772**	**-**	**2,657,288**	**-3**	**2,826,992**	**-169,707**	**-169,704**	**106.39%**	**85,797**	**85,797**
2026	**127.911**	**1.562**	**53.649**	**0.00**	**81.348**	**0.889**	**265.358**	**361.633**	**143.812**	**-**	**2,794,059**	**-3**	**3,049,560**	**-255,504**	**-255,501**	**109.14%**	**95,389**	**95,389**
2027	**131.748**	**1.608**	**54.971**	**0.00**	**84.805**	**0.916**	**274.048**	**372.416**	**151.214**	**-**	**2,937,872**	**-3**	**3,288,762**	**-350,893**	**-350,889**	**111.94%**	**104,064**	**104,064**
2028	135.700	1.657	56.561	0.00	88.409	0.943	283.270	384.589	158.997	-	3,089,086	-3	3,544,040	-454,958	-454,955	114.73%	112,276	112,276