B. FISCAL RISKS AND BUDGET SENSITIVITIES

The preparation of the 2023-24 Budget is informed by a range of forecasts and assumptions that are inherently uncertain. This Appendix provides insight into potential fiscal risks and budget sensitivities that cannot be determined with sufficient certainty to be incorporated into the Budget.

The Appendix does not consider the policy risks associated with future extensions or changes to financial decisions made by the New South Wales Government or the Australian Government.

B.1 Operating statement risks and sensitivities

State taxation revenue

The state of the economy affects the level of tax collected. Changes in a range of macroeconomic drivers – from property sales volumes and prices to employment levels and wage growth – can lead to major changes in the level of tax collected, increasing or decreasing government revenues accordingly.

NSW Treasury's own forecast assumptions for key macroeconomic variables across the budget and forward estimates (as set out in Table B.1 below) are used to inform the revenue forecasts.

The forecasts prepared for the Budget are based on the latest available information. These forecasts are predictions about the future and the actual results may change as unknown events unfold. The extent of the variation will depend on the weighting accorded to each macroeconomic variable when forecasting the tax in question. Table B.1 summarises these weightings.

Table B.1: Forecasting revenue – What weighting is given to different variables

	Forecast weightings						
	GST	Payroll tax	Transfer duty	Mineral royalties	Land tax	Gambling taxes	Motor vehicle taxes
Employment	Medium	High	N/A	N/A	N/A	Medium	High
Wages	Medium	High	N/A	N/A	N/A	Medium	Medium
Consumption	High	N/A	N/A	N/A	N/A	High	Medium
Dwelling investment	High	N/A	Medium	N/A	N/A	N/A	N/A
Dwelling prices	Low	N/A	High	N/A	High	N/A	Medium
Population growth	High	Low	Medium	N/A	Low	Low	Low
AUD exchange rate	N/A	N/A	N/A	High	N/A	N/A	N/A
Energy demand	N/A	N/A	N/A	Low	N/A	N/A	N/A

(a) High, medium and low provide only a broad indication of the model weighting for illustration.
(b) N/A here indicates only that the factor is not directly included as a variable in the relevant forecasting model and does not signify that there is no relationship between the respective variable and the tax.

The main driver of payroll tax is total employee compensation, which in turn is a function of both wage and employment levels. Strong demand in the labour market and rising wages have boosted payroll tax receipts compared to the forecast at the 2023 Pre-election Budget Update.

A strong labour market has been central to the economic recovery following the COVID pandemic and has contributed significantly to recent upgrades to payroll tax revenue. However, a slowdown in economic activity will likely weigh on the demand for labour and employment growth is expected to slow materially and remain subdued over the forward estimates.

Payroll tax revenues are therefore forecast by applying growth rates, anticipated in Treasury's forecasts for NSW Average Compensation of Employees and NSW employment, to underlying payroll tax levels. Table B.2 denotes the sensitivity of forecast payroll tax to a one percentage point increase in each of these variables respectively.

Table B.2: Revenue sensitivities – Payroll tax

Factors affecting payroll tax	2023-24 Budget $m	2024-25 $m	2025-26 Forward estimates $m	2026-27 $m	Sensitivity
Average compensation of employees	133	137	145	152	Single percentage point increase in factor
Employment	136	141	149	156	

Transfer duty revenue forecasts rely on the performance of the housing market, including both the volume of residential property sales and the average transacted price. Transfer duty revenues are expected to increase in 2023-24 as property owners who had delayed the decision to transact re-enter the market. If the residential property market performs better than is currently expected, this would add to the State's budget result.

Table B.3 denotes the sensitivity of forecast transfer duty to a one percentage point increase in residential transacted prices and volumes respectively.

Table B.3: Revenue sensitivities – Transfer duty

Factors affecting transfer duty	2023-24 Budget $m	2024-25 $m	2025-26 Forward estimates $m	2026-27 $m	Sensitivity
Residential prices (average transacted price)	112	113	113	116	Single percentage point increase in factor
Residential transaction volumes	97	97	97	99	

Other state taxes are typically less volatile than those mentioned above, and they generally correlate to changes in the broader NSW economy. For example, revenue from motor vehicle taxes, gambling taxes and other stamp duties typically rise and fall with consumption patterns across the State.

The High Court will soon decide the constitutional validity of the Victorian electric vehicle road user charge (EV RUC) in the case of *Vanderstock and Anor v the State of Victoria*. The outcome is uncertain and could have broad-ranging implications for the Australian and state tax base. The plaintiffs argue that the Victorian EV RUC is unconstitutional on the grounds that it is an excise and therefore invalid under section 90 of the Constitution, which reserves this power for the Australian Government. If the plaintiffs succeed, it is possible that the equivalent NSW EV RUC could also be deemed unconstitutional. While the NSW EV RUC is not expected to commence until 1 July 2027, the revenue at risk is expected to be $180 million in 2027-28 and $1.7 billion annually in the long term.

The decision could also have broader impacts to the NSW tax base if the High Court extends the kinds of taxes prohibited by section 90 of the Constitution to include consumption taxes. Such a decision might impact the constitutionality of other state-imposed taxes that could be categorised as a consumption tax.

GST and other Australian Government payments

GST is collected by the Australian Government and then apportioned to the states. Three main factors determine how much GST New South Wales receives over coming years:

- how much is collected in total across the nation (called the pool size)
- New South Wales' population as a proportion of the national population (called the population share)
- what portion of the pool is allocated to New South Wales (called the relativity).

None of these components are fixed.

Table B.4 illustrates the sensitivity of forecast GST distribution to New South Wales to a one percentage point increase in taxable consumption and dwelling investment (the main drivers of the GST pool size), and NSW population share (in absolute terms).

Table B.4: Revenue sensitivities – GST

Factors affecting GST	2023-24 Budget $m	2024-25 Forward estimates $m	2025-26 $m	2026-27 $m	Sensitivity
Taxable consumption	119	124	128	135	Single percentage point increase in factor
Dwelling investment	35	36	37	39	
Population share	841	871	898	941	

The Commonwealth Grants Commission (CGC) uses a formula to determine each state's relativity (measure of relative fiscal capacity), which then drives how much GST each state receives. Under this formula, the following events can lead to a changed share to New South Wales:

- changes to New South Wales' own-source revenue, relative to other states
- a change in the CGC's assessment of how much expenditure New South Wales needs, compared to other states, to deliver an average standard of service and associated infrastructure
- a change to National Agreement and National Partnership payments relative to other states.

The CGC assesses states' GST needs based on the average spending and revenue policies of all states. The averages vary over time due to underlying changes in state policies as well as updated or new data. As such, projections of NSW's relativities are subject to a high degree of uncertainty. The forecasts in this Budget take into account expected National Agreement and National Partnership Payments and anticipated infrastructure project delivery. Actual results can vary from forecasts if there are new, renegotiated or ceased programs and infrastructure projects over the forward estimates period.

Royalties

A large share of royalties revenue is generated from thermal and coking coal exports, which means that the amount of royalties collected are sensitive to changes in:

- coal production volumes – an increase in coal volumes increases the quantity of coal that royalties are charged on, hence increasing royalties revenue
- coal prices – an increase in US dollar coal prices increases the value of coal sold to domestic and international customers, also increasing royalties revenue
- exchange rates – an appreciation of the Australian-US exchange rate reduces the Australian dollar value of coal exports because coal exports are typically transacted in US dollars.

Table B.5 denotes the sensitivity of forecast royalties revenue to a one percentage point increase in coal prices, coal production volumes and the Australian-US exchange rate.

Table B.5: Revenue sensitivities – Coal royalties

Factors affecting royalties revenue	2023-24 Budget $m	2024-25 Forward estimates $m	2025-26 Forward estimates $m	2026-27 Forward estimates $m	Sensitivity
Coal prices	25	25	22	20	Single percentage point increase in factor
Coal volumes	30	26	23	21	
Exchange rate ($A vs $US)	(30)	(26)	(23)	(21)	

General expense risks[1]

Some expense risks are largely within the Government's control and can be actively managed, whereas other risks are primarily outside of its control. For example, impacts associated with existing government policy, employee expenses or the reprofiling of expenses can be more actively managed. Expenses linked to Australian Government payments, inflation, interest rate changes or natural disasters are largely exogenous risks.

The State's largest operating expense is employee related expenses, which includes salaries, wages, superannuation expenses and employment on-costs. Employee related expenses are impacted by factors including new enterprise bargaining agreements, public sector wages policy and the workforce size. Changes in these parameters can impact the budget result.

As the Government shifts to a more consultative interest-based bargaining arrangement, it is possible that the final budget outcome for 2023-24 deviates from current projections. The published budget contains the impact of the Government's current offer to employees. Under the Government's interest-based bargaining approach, the final profile of this measure may change to reflect an agreed outcome. It is also possible that the projection beyond 2023-24 varies in future releases. The Essential Services Fund has been created to support higher wages that may arise as a result of service improvements as part of a new interest-based bargaining system.

Health and education services represent a significant proportion of public sector expenses in New South Wales. The State receives Australian Government payments for these services. Any decrease in these payments or heightened demand for these services can worsen the budget result.

Agency budgets are prepared with consideration to the Government's forecast of inflation at the time of Budget. Once agency budgets are finalised for the 2023-24 year (Budget Paper No. 2 *Agency Financial Statements*), the Government does not subsequently adjust them if inflation comes in higher than forecast. This is consistent with the principle that once Parliament passes the Appropriation Bill, that forms a legal upper limit on how much the Consolidated Fund can be drawn down in that financial year. There are very limited circumstances in which exigencies of Government can be approved by the Treasurer and Governor for urgent and unforeseen expenses in 2023-24.

Should events unfold in the coming months which lead to a further upward revision of inflation at the next budget, that would flow through to a higher projection for expenses in years after 2023-24. At the same time, should events unfold over the next twelve months and the Government believes it would be appropriate to revise down its inflation forecasts relative to what is in this Budget, that would lead to a reduction in projected expenses.

[1] The Budget includes allowances for Parameter and Technical Adjustment and anticipated timing changes. See Chapter 5 Expenditure for more information.

Table B.6: Expense sensitivities

Factors affecting expenses	2023-24 Budget $m	2024-25 Forward estimates $m	2025-26 $m	2026-27 $m	Sensitivity
Expenses					Single percentage point increase in factor
Employee Expenses (excl super)	(435.3)	(460.2)	(475.3)	(495.5)	
Government services demand growth					
Health and education expenses	(509.1)	(513.4)	(529.4)	(539.2)	

Other expense risks that could impact the budget result include:

- higher than budgeted maintenance, depreciation and operating costs associated with the Government's infrastructure program (see below for infrastructure related risks)
- unforeseen legal expenses or costs associated with litigation, including native title claims
- expenses relating to continuation of programs where funding may cease across the forward estimates and require further government consideration
- changes to parameters that influence the liabilities and associated expenses for superannuation, long service leave, other employee provisions and insurance provisions (see below for further balance sheet risks and sensitivities)
- possible additional risks and pressures present within agency budgets, for example increased energy costs
- reimbursement or compensation may be required for Forestry Corporation NSW should any improvements to protection measures be required to ensure that koala hubs in the Great Koala National Park (GKNP) are protected from forestry operations until the GKNP is established.

Investment revenue and borrowing costs

Investment Revenue

Financial markets generally performed well during 2022-23, despite persisting uncertainty around inflation globally and monetary policy tightening. This positive performance in turn drove solid investment return outcomes for State funds. Although it is early in the current financial year, investment returns have been somewhat mixed during 2023-24 so far.

Financial markets remain volatile however, as the ongoing uncertainty about the global economic outlook, including inflation, impacts asset values. NSW Treasury works closely with TCorp to manage risk and navigate through the current volatile interest rate environment.

Investment returns may be above or below estimates which would impact revenue. Adopting the Attribution Managed Investment Trust regime for most government investment funds can help reduce investment revenue volatility impacts on the budget result by smoothing fund distributions over time.

The large size of the State's investments means that a one percentage point movement in assumed investment return rates has a material impact on the Government's budget result.

Borrowing Costs

The Government's interest expenses are partially a function of the interest rates it must pay on its new and refinanced borrowings. While the vast majority of the Government's existing debt portfolio is fixed-rate debt (and hence, not affected by movements in interest rates), it will be adversely affected by rising interest rates.

A one percentage point movement in interest rates would change interest expenses on borrowings and interest revenue on any invested cash, with offsetting impacts on the budget result.

Table B.7: Financial markets and interest rates sensitivities

Financial markets and interest rate sensitivities	2023-24 Budget $m	2024-25 Forward estimates $m	2025-26 $m	2026-27 $m	Sensitivity
Investment revenue[a]	199.0	274.4	345.2	433.3	Single percentage point increase in factor
Interest revenue[b]	2.4	2.6	2.7	2.6	
Interest expenses[b]	(227.2)	(366.7)	(540.3)	(738.6)	

(a) A single percentage point increase in the expected investment rate of return (NIFF, SAHF, NGF and SHLF only).
(b) A single percentage point increase in interest rates.

B.2 Balance sheet risks and sensitivities

Risks to the State's balance sheet include unanticipated changes:

- to the value of existing assets and liabilities (those already on the balance sheet)
- from the potential recognition of contingent assets and liabilities (those not shown on the balance sheet as the accounting recognition criteria are not yet met).

The risks and performance of funds are monitored closely, with risk appetites and investment strategies reviewed annually to ensure they remain appropriate.

Liabilities for defined benefit superannuation and long service leave are estimated with reference to a range of factors, including but not limited to assumed rates of investment returns, salary growth, inflation and discount rates.

The State also faces potential obligations that are non-quantifiable, but which can be broadly grouped into commercial transactions and other contingent liabilities. For example, the Government provided limited general warranties to purchasers and lessees under several energy transactions and retained responsibility for remediation costs associated with pre-existing contamination at several power station sites.

Investments

The State has several investment funds managed by TCorp, including the NSW Generations Fund (NGF), the NSW Infrastructure Future Fund (NIFF), the Social and Affordable Housing Fund (SAHF), the Snowy Hydro Legacy Fund (SHLF), and the Treasury Managed Fund (TMF). Under current governance arrangements, NSW Treasury recommends the risk appetite and/or investment strategy to Treasury's Asset and Liability Committee (ALCO) for endorsement. ALCO then recommends the risk appetite and investment strategy to the Treasury Secretary (as the Treasurer's delegate), or the Treasurer, as required.

These funds have varying levels of exposure to growth assets (assets with higher levels of risk). The NIFF, for instance, has a relatively small allocation to equities (at around 15 per cent) and keeps most of its portfolio in liquid investments such as cash and bonds, which are defensive assets, so it can meet the State's short to medium-term infrastructure expenditure. On the other hand, the NGF has a high allocation of growth assets because of its long-term investment horizon, with about 40 per cent of its portfolio invested in Australian and internationally listed shares. This is in line with its strategic policy objective of helping ease the debt burden on the State's future generations.

The Government recently announced it is reviewing the way in which its investment funds are managed, with a view to doing so more efficiently.

Under the *NSW Generations Funds Act 2018*, funds in the NGF can only be directed towards the repayment of State debt. Fitch and Moody's recognise the balance of the NGF Debt Retirement Fund as an offset to the State's debt metrics, while S&P Global reduce the offset amount in line with 50 per cent of the NGF equity holdings. Accordingly, market volatility that impacts the balance of the NGF carries additional risks to the State's debt metrics. NSW Treasury manages this risk through the NGF's investment strategy (the mix of assets it is invested in) which remains aligned to a long-term investment horizon. The NGF is invested in a diverse range of assets including domestic and international equities, bonds, property and infrastructure.

During this period of ongoing increased uncertainty, NSW Treasury continues to work alongside TCorp to closely monitor and manage the risk exposures of the State's investment funds.

Superannuation and long service leave liabilities

Forecast liabilities for superannuation and long service leave are based on a wide range of parameters. These include assumptions around salary growth, inflation, investment returns and discount rates. A change in any of these parameters may affect the valuation of the liabilities for superannuation and long service leave. The long service leave liability is also subject to variations in the rate of employee retention.

Table B.8: Superannuation liabilities sensitivities[(a)]

Factors affecting superannuation liabilities[(b)]	2023-24 Budget $m	2024-25 Forward estimates $m	2025-26 $m	2026-27 $m	Sensitivity
Change in public sector wages and salaries	60	100	150	200	Single percentage point increase in factor
Change in Sydney CPI	620	1,230	1,800	2,530	
Change in investment return	(300)	(640)	(1,010)	(1,400)	
Change in discount rate	(7,100)				
Change in public sector wages and salaries	(60)	(100)	(140)	(190)	Single percentage point decrease in factor
Change in Sydney CPI	(620)	(1,220)	(1,770)	(2,490)	
Change in investment return	300	630	990	1,350	
Change in discount rate	7,900				

(a) A positive number in the table indicates an increase in the size of the liabilities, and vice versa. For example, a single percentage increase in public sector wages increases net liabilities, which weakens the financial position.
(b) For producing superannuation liabilities sensitivities, *AASB 119 Employee Benefits* is used.

Any change in the growth of public sector salaries will affect the superannuation entitlements of those employees in a defined benefit scheme that are still in the workforce. A decrease in Consumer Price Index (CPI) will lower the benefit payments to all members as their pension is indexed by the Sydney CPI. An increase in the investment return on superannuation assets will increase the funding level of the superannuation liability and improve the budget result. For further information on the unfunded superannuation liability, refer to Chapter 6 Managing the State's Assets and Liabilities.

Insurance risks

Insurance risks are managed through the State's self-insurance schemes (and commercial reinsurance), the largest being the TMF. There are increasing pressures on the State's insurance liabilities, driven by rising costs and claims relating to psychological injury, medical discharge, medical malpractice, historic sexual abuse, cyber, flood damage and other emerging risks. There is a significant risk that these pressures will result in higher than currently estimated costs.

Infrastructure related risks

The State's infrastructure plan is estimated to be $116.5 billion over the four years to 2026-27, after including an allowance for the observed tendency for capital expenditure to slip each year. Total capital expenditure varies as individual projects progress through their delivery lifecycle and encounter unanticipated delays. Uncertainty around international supply chains, geopolitical instability, the availability of expert labour and specialised capital equipment, as well as the increasing complexity of the projects can all impact the cost and delivery timeframes for infrastructure projects.

The Government actively manages the cost and delivery timeframe of projects to minimise any potential disruptions (see Budget Paper No. 3 *Infrastructure Statement* for more information).

B.3 Specific fiscal risks

Lagged impacts of high interest rates

The Reserve Bank of Australia (RBA) has tightened monetary policy aggressively in response to the rapid build-up of inflationary pressures both domestically and abroad. The economy may prove to be more susceptible to these higher interest rates than is currently assumed. This is especially the case given the large number of fixed rate mortgages that are set to revert to higher variable rates over the remainder of 2023. This could see a sharper decline in both household consumption and business activity, and with it a larger rise in unemployment, than is currently expected. This risk would be amplified if housing affordability pressures saw a renewed decline in the housing market.

High interest rates are a significant constraint on the global economy, although economic activity remained somewhat resilient in the June quarter of 2023. A post-COVID recovery in the services sector has been a major factor supporting the global economy, while non-service sector economies have shown clear signs of slowing. With central banks likely to continue the fight against inflation and the recovery in services activity largely run its course, the outlook for global growth is relatively subdued.

Uncertainty over the path of inflation back to central bank targets

Global inflation has been easing recently but remains high. Lower food and energy prices, along with significant improvements in global supply chains, have contributed to this recent trend. However, measures of core inflation have been slow to respond and remain uncomfortably above central bank targets in many countries. In July, the International Monetary Fund revised up their forecasts for underlying inflation. High levels of inflation could prompt global central banks to raise rates further, which would threaten global growth and with it demand for NSW exports, such as coal.

Domestically, increased wages growth combined with weak productivity could mean inflation is higher for longer than expected. This is especially the case should high inflation become entrenched in the wage and price setting behaviours of households and businesses, convincing the RBA to raise rates further. Higher interest rates would not only potentially impact revenue but will also directly impact the government interest expenses.

Other global risks

The outlook for China is particularly important to the NSW economy. The Chinese post-COVID recovery appears to be weakening. This reflects ongoing weakness in the real estate sector, weighing on investment and subdued foreign demand. Uncertainty over the outlook for Chinese growth could unsettle commodity markets and impact prices or demand for key NSW exports.

Geopolitical risks remain elevated, especially given Russia's continued invasion of Ukraine. A further escalation of activities could again disrupt commodity markets and supply chains, negatively impacting global and domestic economic activity. That said, it could support coal prices at elevated levels.

Extreme weather events and impacts of climate change

Over the last few years, New South Wales has faced a significant number of natural disasters ranging from drought, bushfires, and floods. Climate-driven natural hazards are expected to become more frequent and intense. New South Wales' 2021-22 Intergenerational Report has estimated that the total expected economic costs associated with natural disasters are projected to increase to between $15.8 billion and $17.2 billion (real 2019-20 dollars) per year by 2061, up from $5.1 billion in 2020-21.

More broadly, the RBA has noted the heightened uncertainty around how the climate will change and how this will impact the economy and financial system. Governments are also exposed to the increasing risk of climate change litigation in Australia and globally. In August 2023, proposed settlement terms in the court case of *Kathleen O'Donnell v. Commonwealth of Australia* (filed in July 2020), revealed that the Australian Government is expected to publish a statement acknowledging the uncertainty about whether the fiscal impacts of climate change may affect the value of government securities.