B. FISCAL RISKS AND BUDGET SENSITIVITIES

The 2019-20 Budget is prepared, in part, on forecasts and assumptions subject to variations. This appendix outlines some of the risks inherent in the budget and presents the potential budget result and/or balance sheet impacts of these risks (if realised) and sensitivities resulting from changes in specified variables. In the analysis presented throughout this appendix, all variables other than those being tested adopt the same forecasts and assumptions used in preparing the 2019-20 Budget.

The summary of sensitivities in this appendix should be used as a 'rule of thumb' estimated impact for a change in the relevant variable. The sensitivity analysis presented assumes either a 1 per cent or 1 percentage point change to the specified variable in each year. A positive impact from the variable change will improve the State's budget position or net worth, while a negative impact weakens the budget position or net worth.

Several specific fiscal risks are also outlined in this appendix. These could potentially have a positive or negative impact on the budget and forward estimates. Due to the uncertainty surrounding these risks, the potential impacts have not been incorporated into the 2019-20 Budget. For further information on the State's contingent assets and liabilities see Appendix C of this Budget Paper.

B.1 Operating statement risks and sensitivities

State taxation revenue

Taxation revenue is dependent on underlying economic drivers such as property volumes and prices, employment and employee compensation. Changes in these underlying drivers can have a significant impact on revenue collected.

The largest State tax is payroll tax, and the main driver of payroll tax is total employee compensation. Variations in employment, wages, and other forms of employee compensation can cause movements in payroll tax revenue. The labour market is also exposed to macro-economic uncertainties. These include external trade shocks, enterprise bargaining outcomes, and changes in household demand. Movements in any of these could result in revised employment or wage growth outcomes, with flow-through effects on payroll tax.

Transfer duty makes up about 8.2 per cent of forecast 2019-20 general government sector revenue and a delay in the forecast residential property recovery, or a less robust return to growth, could detract from the State's budget result. Conversely, a stronger recovery could improve the result. Revenue from large commercial transactions is becoming a greater share of transfer duty over time. Since large transactions are more volatile than activity in the residential property market, this increases the risk of upward or downward revisions to transfer duty.

Other state taxes are typically less volatile, following changes in the broader NSW economy. Motor vehicle and gambling taxes and other stamp duties broadly follow consumption patterns across the State, which can change suddenly, influenced by numerous factors including employment and house price growth.

Table B.1: Revenue sensitivities – state taxation revenues

Revenue source and assumptions	2019-20 Budget	2020-21 Forward estimates	2021-22	2022-23	2019-20 Sensitivities
	$m	$m	$m	$m	
State tax revenues					
Factors affecting state tax revenues					
Dwelling price growth	60	68	77	81	**+ 1% movement in factor[(a)]**
Dwelling sales growth	50	57	65	68	
Change in employment growth	111	116	122	128	
Change in growth of average compensation of employees	110	115	121	127	

(a) 1 per cent movement in factor is a 1 percentage point increase.

GST and other Commonwealth payments

The GST revenue that New South Wales receives is affected by the amount collected nationally (the pool size) and the State's share (its relativity). A rise in New South Wales' own source revenue relative to other states, or a reduction in its assessed need for expenditure relative to other states, or an increase in National Agreement and National Partnership payments relative to other states, may put downward pressure on the State's relativity and therefore GST revenue.

As identified in Chapter 2, there are significant short and medium term risks for New South Wales from the subdued outlook for nominal household consumption and dwelling investment.

The 2019-20 Commonwealth Budget scenario analysis[1] indicates a 0.5 per cent fall in nominal consumption growth compared with that forecast in 2019-20 would reduce national GST receipts by $0.3 billion in 2019-20 and $0.5 billion in 2020-21. This would reduce New South Wales GST revenue by $373 million over the four years to 2021-22, while a greater fall in nominal consumption growth and national GST receipts would lead to a commensurate fall in the State's GST revenue.

Changes in the fiscal circumstances of other states also present risks to New South Wales' GST revenue:

- downside risks exist if New South Wales' transfer duty revenue is stronger than expected or if it is lower than expected in other states
- upside risks also exist. For example, an increase in Western Australia's iron ore royalties in 2019-20 would increase New South Wales' GST revenue.

The Commonwealth Grants Commission (CGC) 2020 Methodology Review also presents near term risks for New South Wales. This five-yearly review will lead to changes in how the CGC calculates each state and territories' GST requirement. Possible data revisions could also have redistribution impacts. Outcomes from the Review will affect New South Wales' GST share from 2020-21 to 2025-26.

To minimise risks regarding GST revenue forecasting, Treasury will conduct a review of its GST revenue forecasting framework to ensure it continues to support good decision-making through high-quality GST revenue forecasts. Changes to this framework will be implemented over the next 12 months.

[1] Commonwealth Budget 2019-20, Budget Paper 5, Statement 7: Forecasting Performance and Scenario Analysis, Scenario 2: Alternative paths for household consumption growth

The budget result is also affected by variations in National Agreement and National Partnership payments and any associated spending obligations. The volatility arises from new or re-negotiated programs and infrastructure projects, the termination of existing agreements and changes to payment profiles.

Royalties

New South Wales' mineral royalties are primarily derived from coal, most of which is exported to East Asia. Royalties revenue is sensitive to changes in foreign exchange rates, global coal prices and domestic production. Mineral royalties are also exposed to other domestic and external global risks that contribute to its significant volatility as a revenue source. Mineral royalties are generally affected by three factors:

- coal export volumes – an increase in coal volumes increases the quantity of coal that royalties are charged on, hence increasing revenue
- coal export prices – an increase in coal export prices increases the value of coal exports and so increases royalties revenue
- exchange rates – an appreciation of the Australian-US exchange rate reduces the Australian dollar value of coal exports, putting downward pressure on royalties revenue due to coal exports being transacted in US dollars

Table B.2: Revenue sensitivities – state taxation royalties

Revenue source and assumptions	2019-20 Budget	2020-21	2021-22 Forward estimates	2022-23	2019-20 Sensitivities
	$m	$m	$m	$m	
Royalties [(b)]					
Factors affecting NSW Royalties					
Coal export volumes (Mt)	16	18	17	17	**+ 1% movement in factor** [(a)]
Coal export prices ($US)	16	18	18	18	
Australian-US dollar exchange rate	(19)	(18)	(18)	(18)	

(a) 1 per cent movement in factor is a 1 percentage point increase.
(b) Royalty sensitivities do not include changes to non-coal revenue or to the composition of coal types.

General expense risks

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

The State's largest operating expense is for 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, as well as the overall size and composition of the workforce. Changes in these parameters can impact the budget result. Since 2011, the NSW Public Sector Wages Policy has helped to mitigate this risk.

The Government also incurs other operating expenses related to the non-labour costs of delivering services such as the maintenance and depreciation of assets, electricity, insurance and fuel. The cost of these inputs are subject to changes in market fluctuations, which can impact the Budget. For example, changes to inflation could increase the cost of goods and services, which may outweigh the positive impacts of own-source revenues.

Table B.3: Expense sensitivities

Expense source and assumptions	2019-20 Budget	2020-21 Forward estimates	2021-22	2022-23	2019-20 Sensitivities
	$m	$m	$m	$m	
Expenses					
Factors affecting expenses					**+ 1% movement in factor [(a)]**
Employee expenses (excl super)	(343)	(348)	(368)	(394)	
Cost of goods and services	(208)	(219)	(215)	(199)	
Government services demand growth					
Factors affecting expenses					**+ 1% movement in factor [(a)]**
Health and Education expenses	(402)	(413)	(430)	(446)	

(a) 1 per cent movement in factor is a whole 1 per cent increase.

Growth in demand for government services, from factors such as higher than forecast population growth and other external events represents a further risk to expenses.

Health and education services represent a significant proportion of public sector expenditure and increases in demand for these services can worsen the budget result. Similarly, a decrease in Commonwealth Government payments towards these services will worsen the budget result if the same level of service is maintained. Higher than forecast demand for public transport services can also impact the budget result if additional services or infrastructure are required to meet this demand.

The 2019-20 Budget incorporates several savings initiatives as well as policy measures and election commitments being funded from within existing agency budgets. Changes to factors – such as demand growth or inflation – could impact agency budgets and risk the ability of agencies to meet these commitments from within existing budget allocations.

Other expenditure challenges that could impact the budget result include:

- higher maintenance, depreciation and operating costs associated with the Government's record infrastructure program
- extension of existing time-limited programs
- unforeseen legal expenses or costs associated with litigation
- changes to parameters that impact the liabilities and associated expenditure for superannuation, long service leave, other employee provisions and insurance provisions (see below for further balance sheet risks and sensitivities).

Investment revenue and borrowing costs

The Budget is susceptible to the performance of global financial markets and changes in interest rates. Higher interest rates may result in higher costs for new borrowings, while at the same time providing higher interest revenue. Financial market movements could result in investment returns above or below estimates, which then impact revenue. Adopting the recently introduced Attribution Managed Investment Trust AMIT regime for the NSW Generations Fund and the Social and Affordable Housing Fund will help provide greater certainty with respect to these funds' investment returns.

Table B.4: Financial markets and interest rates sensitivities

Expense / Revenue source and assumptions	2019-20 Budget	2020-21 Forward estimates	2021-22	2022-23	2019-20 Sensitivities
	$m	$m	$m	$m	
Financial markets and interest rates					
Investment Revenue [a]	244	242	248	265	**+ 1% movement in factor**
Interest Revenue [b]	9	10	10	10	
Interest Expenses [b]	(39)	(112)	(183)	(295)	

(a) 1 per cent movement in factor is a 1 percentage point increase in investment returns.
(b) 1 per cent movement in factor is a 1 percentage point increase in interest rates.

NSW Treasury continues to develop financial risk management strategies that optimise and protect the State's balance sheet. For example, this year Treasury and TCorp have worked closely to assist agencies with foreign exchange risk management. This approach results in greater cost certainty and cost-efficient arrangements and will continue to be applied to provide cost effective and consistent management of foreign exchange, interest rate and commodity price risks.

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 (i.e. as shown on the balance sheet) and the potential recognition of contingent assets and liabilities (i.e. not shown on the balance sheet as the accounting recognition criteria are not yet met).

Investment funds held by New South Wales are exposed to a number of inherent market risks which subject them to short-term volatility in returns, particularly in those with a higher weighting to growth assets. Each fund comprises a different underlying type of investment, with associated risks and investment horizons. The risks and performance of the funds are monitored closely, and the Strategic Asset Allocations are reviewed annually to reflect current risks and market conditions.

Liabilities for superannuation and long service leave are estimated with reference to assumed rates of investment returns, salary growth, inflation, discount rates and other factors. Changes in these parameters can affect defined benefit superannuation and long service leave liabilities.

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

Investments

The State holds a number of investment funds which are managed by TCorp, including the NSW Generations Fund, NSW Infrastructure Future Fund, Social and Affordable Housing Fund and the Treasury Managed Fund.

The NSW Generations Fund (NGF)

The NGF was seeded with an initial balance of $10.0 billion in November 2018 from sales proceeds from the successful WestConnex transaction and balance sheet reserves. The *NSW Generations Funds Act 2018* requires that the funds in the NGF can only be directed towards the repayment of the State's debt.

Since inception, the NGF's investment performance has been very strong, returning 8.5 per cent in the five months to April 2019, well above expectations. The NGF's value at 30 April 2019 was $10.8 billion, which equates to an investment gain of approximately $802.0 million since it was established.

The NGF investment strategy (i.e. the mix of assets it is invested in) is aligned to its long-term investment horizon and its policy aim of achieving intergenerational equity. As such, the Fund is well-placed for higher returns within a considered level of risk. Reflecting this, the NGF is invested in a diverse range of assets including domestic and international equities, bonds, property and infrastructure. Under the prevailing governance arrangements, Treasury endorses the risk appetite and the NGF Advisory Board endorses the investment strategy to the Treasurer.

The NSW Infrastructure Future Fund (NIFF)

The NIFF continues to deliver steady returns and TCorp's management has achieved long-term investment returns superior to fixed term deposits or cash.

Since its inception in December 2016, the NIFF has generated gains of over $2.0 billion. This represents a net return of 6.2 per cent per annum since inception, and 4.6 per cent for the last 10 months to 30 April 2019. This investment return is well above the rate available from holding funds in the Treasury Banking System. The balance of the NIFF was at $18.1 billion as at 30 April 2019, which comprises proceeds from asset recycling transactions, Commonwealth Government Asset Recycling Initiative payments, proceeds from Waratah Bonds, windfall tax revenue, and investment earnings.

The NIFF is invested strategically in a mix of defensive and growth assets to provide higher returns than if simply left in cash. This asset allocation is designed to provide liquidity to fund the future requirements of the Restart NSW and Rebuilding NSW expenditure programs.

Social and Affordable Housing Fund (SAHF)

The SAHF was seeded with $1.1 billion of asset recycling proceeds in August 2017. As at 30 April 2019, the SAHF had a balance of $1.2 billion and has returned 9.3 per cent since inception and 6.7 per cent for the last 10 months to 30 April 2019, outperforming its strategic asset allocation benchmark and increasing funding for new and affordable housing stock.

TCorp manages the SAHF to provide a stable income stream over a 25-year period, facilitating the delivery and ongoing servicing of social and affordable homes from a mix of private and non-profit consortia.

Treasury Managed Fund (TMF)

The TMF provides funding for the State's self-insurance scheme covering participating government entities for their insurable risk exposures. The TMF receives contributions from NSW government entities and holds assets to meet the cost of liabilities when they arise.

As at 30 April 2019, the TMF had a balance of $8.5 billion and has returned 6.8 per cent for the 10 months to April 2019. Since inception in March 1999, it has returned 6.8 per cent per annum exceeding both its strategic asset allocation benchmark and investment objective.

The fund has a relatively high exposure to growth assets including domestic and international equities as well as unlisted assets such as property and infrastructure. The TMF's investment strategy supports its investment and policy objectives over the long term – within an acceptable level of risk. This provides the Government with confidence that unforeseen losses can be managed with minimal impact to the State Budget.

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 actual liabilities of superannuation and long service leave. The long service leave liability is also subject to variations in the rate of employee retention.

Table B.5: Superannuation liabilities

Net financial liabilities (NFL) source and assumptions	2019-20 Budget	2020-21 Forward estimates	2021-22	2022-23	2019-20 Sensitivities
	$m	$m	$m	$m	
Superannuation liabilities [b]					
Factors affecting superannuation liabilities					
Change in public sector wages and salaries	(140)	(260)	(350)	(420)	**+ 1% movement in factor** [a]
Change in Sydney CPI	(770)	(1,500)	(2,150)	(2,950)	
Change in investment return [c]	350	720	1,110	1,530	
Change in discount rate	11,200	...	...		
Factors affecting superannuation liabilities					
Change in public sector wages and salaries	140	260	340	400	**- 1% movement in factor** [a]
Change in Sydney CPI	770	1,600	2,250	3,100	
Change in investment return [c]	(350)	(710)	(1,090)	(1,480)	
Change in discount rate	(12,900)	...	...		

(a) 1 per cent movement in factor is a 1 percentage point change.
(b) For producing superannuation liabilities sensitivities, AASB 119 *Employee Benefits* is used.
(c) A positive effect (e.g. improved investment returns) reduces NFL (improves the financial position), while a negative effect (e.g. higher public sector wages) increases NFL (weakens the financial position).

An increase in public sector salaries will increase the superannuation entitlements of those employees on a defined benefit scheme that are still in the workforce, while an increase in CPI will increase 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 proportion of the defined benefit that can be funded and will hence improve the budget result. For an explanation of the unfunded superannuation liability, refer to Chapter 6 of this *Budget Statement*.

B.3 Specific fiscal risks

National Redress Scheme for survivors of institutional child sexual abuse

On 9 March 2018, the NSW Government announced it would opt-in to the National Redress Scheme for survivors of institutional child sexual abuse. Liabilities for the Scheme are forecast based on a wide range of actuarially based parameters. These include assumptions about the exposure and latency of reporting abuse in New South Wales, and the number of applicants. Adjustments may be made to these parameters once more applications are received, and more data becomes available. This may affect the actual liabilities and expenses of redress over the 10-year life of the Scheme.

Civil litigation claims of institutional child sexual abuse

Survivors of institutional child sexual abuse may choose to pursue civil litigation rather than opting into the redress scheme. Civil claims currently represent a contingent liability and there continues to be significant uncertainty around these claims. Once more data becomes available on the proportion of survivors opting to pursue redress instead of civil action, and of the claims in the Civil Court system, the ability to reliably measure the liability may become clearer and brought to account appropriately.

Drought

New South Wales is experiencing severe drought conditions. Water restrictions are in effect, commencing in Sydney, the Blue Mountains and Illawarra in June 2019. Sustained drought conditions could result in lower than projected water sales. In turn, this may result in lower dividend and distribution revenue from the public non-financial corporations sector, adversely affecting the budget result.

Continued drought conditions could require additional concurrent expenditure for:

- repairs for breaks and leaks from drying soils
- infrastructure planning
- funding of water efficiency programs
- conservation campaigns
- further water restriction roll outs.

Infrastructure related risks

Infrastructure projects

The cost of the State's total estimated infrastructure program is $93.0 billion and may vary during the project life cycle, including as a result of changes to project delivery schedules. Factors such as availability of expert labour and capital equipment, weather and cost escalations can also impact project estimates.

Maintenance and depreciation from the State's infrastructure program

The delivery of the Government's record infrastructure program is contributing to increases in depreciation and maintenance expenditure as assets are completed, many beyond the forward estimates.

From 2011-12 to 2018-19, the compound annual growth rate of depreciation expenses was 8.6 per cent, which is higher than the 4.4 per cent growth rate for total expenses. This trend is expected to continue across the budget and forward estimates. Depreciation expenses are forecast to grow at an average rate of 6.3 per cent across the budget and forward estimates (compared with 2.7 per cent for total expenses). The Government's use of Public Private Partnerships in delivering its infrastructure program helps to partially mitigate the risks associated with maintenance costs, as they can be passed onto private sector contractors.

Looking to the future, the Government will continue to monitor and develop strategies to help manage the budget impacts from depreciation and maintenance expenditure associated with a growing capital program.

Restart NSW

This Budget includes the estimated impact of expensing funds from the Restart NSW fund to government agencies (capital expenditure) and non-government proponents, principally local councils (recurrent expenditure). These estimates include assumptions around the expenditure profiles of approved projects and unapproved projects (on the assumption that a formal approval will be forthcoming).

Changes to the timing of these approvals and project delivery schedules may affect the estimates. Unreserved balances in Restart NSW are not reflected in the Budget until a reservation or commitment is made. See Chapter 3 of the *Infrastructure Statement* for more information.

Financial reporting and accounting related risks

Impacts of new accounting standards

The Australian Accounting Standards Board has issued several new Australian Accounting Standards (AAS) (see Appendix A2).

The 2019-20 Budget incorporates the estimated impacts of the new AAS that come into effect from 2019-20, including AASB 15 *Revenue from Contracts with Customers*, AASB 1058 *Income of Not-for Profit Entities* and AASB 16 *Leases*. The impacts from these standards are largely associated with the reprofiling of revenues to align with how contracted obligations are completed over time, as well as the requirement for most leases to be reported on the balance sheet, with corresponding impacts on capital expenditure, interest, depreciation and operating expenses.

The 2019-20 Budget does not include the financial impacts associated with AASB 1059 *Service Concession Arrangements: Grantors,* the new AAS that comes into effect from 2020-21. The application of this standard requires the recognition of service concession assets and related liabilities at the commencement of service concession arrangements. This is expected to significantly increase assets and liabilities in the State's balance sheet, and also to impact the budget result. The NSW Government is still assessing its financial impacts on the forward estimates.