Appendix C: Revenue and expense assumptions and sensitivity analysis

The Queensland Budget, like those of other jurisdictions, is based in part on assumptions made about parameters that are uncertain, both internal and external to the State, which can impact directly on economic and fiscal forecasts.

This appendix outlines the assumptions underlying the revenue and expense estimates and analyses the sensitivity of the estimates to changes in the economic and other assumptions. This analysis is provided to enhance the level of transparency and accountability of the Government.

The forward estimates in the Budget are framed on a no policy change basis. That is, the expenditure and revenue policies in place at the time of the Budget (including those announced in the Budget) are applied consistently throughout the forward estimates period.

The following discussion provides details of some of the key assumptions, estimates and risks associated with revenue and expenditure and, where a direct link can be established, the indicative impact on forecasts resulting from a movement in those variables.

Table C.1 Taxation and royalty revenue[1]

	2016-17 Actual $ million	2017-18 Est. Act. $ million	2018-19 Budget $ million	2019-20 Projection $ million	2020-21 Projection $ million	2021-22 Projection $ million
Payroll tax	3,695	3,887	4,086	4,312	4,574	4,850
Transfer duty	3,278	3,090	3,214	3,396	3,578	3,768
Other duties	1,405	1,477	1,572	1,650	1,731	1,816
Gambling taxes and levies	1,127	1,194	1,307	1,388	1,448	1,471
Land tax	1,082	1,183	1,313	1,368	1,433	1,512
Motor vehicle registration	1,681	1,755	1,829	1,892	1,961	2,032
Other taxes	651	699	834	1,179	1,227	1,273
Total taxation revenue	**12,919**	**13,284**	**14,155**	**15,184**	**15,951**	**16,722**
Royalties						
Coal	3,405	3,768	3,522	3,135	2,774	2,866
Petroleum[2]	98	188	447	446	438	450
Other royalties[3]	376	371	479	506	515	506
Land rents	122	157	167	172	178	189
Total royalties and land rents	**4,000**	**4,484**	**4,615**	**4,260**	**3,904**	**4,011**

Notes:

1. Numbers may not add due to rounding.
2. Includes impact of liquefied natural gas (LNG).
3. Includes base and precious metal and other mineral royalties.

Taxation revenue assumptions and revenue risks

The rate of growth in tax revenues is dependent on a range of factors that are linked to the rate of growth in economic activity in the State. Some taxes are closely related to activity in specific sectors of the economy, whilst others are broadly related to the general rate of economic growth, employment, inflation and wages. A change in the level of economic activity, resulting from economic growth differing from forecast levels, would impact upon a broad range of taxation receipts.

Wages and employment growth - payroll tax collections

Wages and employment growth have a direct impact on payroll tax collections. The Budget assumptions are for an increase in wages of 2½ and an increase in employment of 1½% in 2018-19. The composition of the payroll tax base is also important as businesses in fast growing sectors such as tourism, retail and hospitality are often outside the tax base because they are below the threshold. A one percentage point variation in either Queensland wages growth or employment would change payroll tax collections by approximately $41 million in 2018-19.

Transfer duty estimates

Transfer duty collections in 2018-19 are expected to increase by 4.0% on the 2017-18 estimated actual with restrained growth in the residential sector being supported by stronger growth in large non-residential transactions and revenue from the additional foreign acquirer duty measure.

Across the forward estimates period, moderate growth is expected in both residential and non-residential transfer duty as sentiment in both markets begins to improve.

A one percentage point variation in either the average value of property transactions or the volume of transactions would change transfer duty collections by approximately $32 million in 2018-19.

Royalty assumptions and revenue risks

Table C.2 Coal royalty assumptions

	2017-18 Est. Act. $ million	2018-19 Budget $ million	2019-20 Projection $ million	2020-21 Projection $ million	2021-22 Projection $ million
Tonnages - crown export[1]	212	222	233	236	242
Exchange rate US$ per A$[2]	0.78	0.75	0.75	0.75	0.75
Year average coal prices (US$ per tonne)[3]					
Hard coking	198	161	140	130	130
Semi-soft	142	128	110	101	101
Thermal	87	89	79	75	75
Year average oil price					
Brent (US$ per barrel)	62	73	67	66	67

Notes:

1. Excludes coal produced for domestic consumption and coal where royalties are not paid to the Government, i.e. private royalties. 2018-19 estimate for domestic coal volume is approximately 26.1 Mt and private coal is 11.2 Mt.
2. Year average.
3. Price for highest quality coking and thermal coal. Lower quality coal can be sold below this price with indicative average prices for 2018-19 as follows: Hard coking US$151 and thermal US$83.

Royalty Assumptions

Table C.2 provides the 2018-19 Budget assumptions regarding coal royalties, which represent the bulk of Queensland’s royalty revenue.

Exchange rate and commodity prices and volumes - royalties estimates

Estimates of mining royalties are sensitive to movements in the A$-US$ exchange rate and commodity prices and volumes. Contracts for the supply of commodities are generally written in US dollars. Accordingly, a change in the exchange rate impacts on the Australian dollar price of commodities and therefore expected royalties collections.

Coal

For each one cent movement in the A$-US$ exchange rate, the impact on royalty revenue would be approximately $66 million in 2018-19.

A 1% variation in export coking and thermal coal volumes would lead to a change in royalty revenue of approximately $32 million. A 1Mt variation would lead to a change in royalty revenue of approximately $14 million.

A 1% variation in the average price of export coal would lead to a change in royalty revenue of approximately $50 million.

Parameters influencing Australian Government GST payments to Queensland

The Queensland Budget incorporates estimates of GST revenue grants to Queensland based on Australian Government estimates of national GST collections and Queensland Treasury assumptions of Queensland’s share. The estimates of collections are primarily determined by the value of consumption subject to GST.

Since the Australian Government payments are based on the amount actually collected, it is Queensland’s Budget that bears the risks of fluctuations in GST collections. As with all other tax estimates, there is a risk of lower collections than estimated if economic growth and consumption are weaker than expected.

Due to the complexities associated with the GST base, the information provided in the Australian Government Budget Papers is not sufficient to prepare indicative forecasts of the sensitivity of GST estimates to key variables.

Sensitivity of expenditure estimates and expenditure risks

Public sector wage costs

Salaries and wages form a large proportion of General Government Sector operating expenses. Increases in salaries and wages are negotiated through enterprise bargaining agreements.

The 2018-19 Budget and forward estimates reflect wage increases as per existing agreements and the Government's wages policy where outcomes are yet to be finalised.

A general 1% increase in wage outcomes in one year would increase expenses by around $240 million in that year. The impact would compound and be much larger in the later years.

Interest rates

The General Government Sector has a total debt servicing cost estimated at $1.474 billion in 2018-19. The current average duration of General Government Sector debt is just over 5.5 years. The majority of General Government Sector debt is held under fixed interest rates and therefore the impact of interest rate variations on debt servicing costs in 2018-19 would be relatively modest, with the impact occurring progressively across the forward estimates.

Actuarial estimates of superannuation and long service leave

Liabilities for superannuation and long service leave are estimated by the State Actuary with reference to, among other things, assumed rates of investment returns, salary growth, inflation and discount rate. These liabilities are therefore subject to changes in these parameters. Similarly, the long service leave liabilities are subject to the risk that the actual rates of employee retention will vary from those assumed in the liability calculation.