

## 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<sup>1</sup>**

	2017-18 Actual \$ million	2018-19 Est. Act. \$ million	2019-20 Budget \$ million	2020-21 Projection \$ million	2021-22 Projection \$ million	2022-23 Projection \$ million
Payroll tax	3,906	4,158	4,284	4,435	4,728	5,107
Transfer duty	3,023	3,049	3,038	3,205	3,383	3,578
Other duties	1,474	1,549	1,624	1,704	1,787	1,873
Gambling taxes and levies	1,190	1,331	1,410	1,466	1,526	1,588
Land tax	1,180	1,331	1,589	1,670	1,744	1,807
Motor vehicle registration	1,770	1,847	1,908	1,977	2,049	2,124
Other taxes	701	740	1,310	1,320	1,383	1,447
<b>Total taxation revenue</b>	<b>13,244</b>	<b>14,005</b>	<b>15,164</b>	<b>15,777</b>	<b>16,601</b>	<b>17,525</b>
<b>Royalties</b>						
Coal	3,737	4,363	4,339	3,461	3,468	3,604
Petroleum <sup>2</sup>	187	450	577	620	638	630
Other royalties <sup>3</sup>	372	389	538	520	522	510
Land rents	162	163	168	169	172	174
<b>Total royalties and land rents</b>	<b>4,457</b>	<b>5,364</b>	<b>5,621</b>	<b>4,770</b>	<b>4,799</b>	<b>4,918</b>
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 2¼% and an increase in employment of 1¼% in 2019-20. 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 \$43 million in 2019-20.

### **Transfer duty estimates**

Transfer duty collections in 2019-20 are expected to decrease by 0.3% on the 2018-19 estimated actual. This decrease is driven by a decline in the volume of residential property transactions, particularly for investors

Across the forward estimates period, annual average growth of around 4.1% is expected in both the residential and non-residential components of transfer duty.

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 \$30 million in 2019-20.

## Royalty assumptions and revenue risks

**Table C.2 Coal royalty assumptions**

	2018-19 Est. Act.	2019-20 Budget	2020-21 Projection	2021-22 Projection	2022-23 Projection
Tonnages – crown export <sup>1</sup> coal (Mt)	213	220	224	229	237
Exchange rate US\$ per A\$ <sup>2</sup>	0.72	0.72	0.73	0.73	0.73
<b>Year average coal prices (US\$ per tonne)<sup>3</sup></b>					
Hard coking	206	179	153	150	150
Semi-soft	153	138	121	118	118
Thermal	106	93	86	84	84
<b>Year average oil price</b>					
Brent (\$US per barrel) <sup>4</sup>	69	69	68	67	66
Notes:					
1. Excludes coal produced for domestic consumption and coal where royalties are not paid to the Government, i.e. private royalties. 2019-20 estimate for domestic coal volume is approximately 24.7 Mt and private coal is 9.4 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 2019-20 as follows: Hard coking US\$167/t and thermal US\$76/t.					
4. Published Brent oil prices are lagged by one quarter to better align with royalty revenue.					

### Royalty Assumptions

Table C.2 provides the 2019-20 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 \$74 million in 2019-20.

A 1% variation in export coking and thermal coal volumes would lead to a change in royalty revenue of approximately \$37 million. A 1Mt variation would lead to a change in royalty revenue of approximately \$19 million.

A 1% variation in the average price of export coal would lead to a change in royalty revenue of approximately \$54 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 2019-20 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 \$254 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 \$1.688 billion in 2019-20. 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 2019-20 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.

# Appendix D: Fiscal Aggregates and Indicators

Table D.1 Key Fiscal Aggregates<sup>1</sup>

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual <sup>2</sup>	Actual <sup>2</sup>	Actual <sup>2</sup>	Actual <sup>2</sup>	Actual <sup>2</sup>	Actual <sup>2</sup>	Actual <sup>2</sup>	Revised	Budget	Projection	Projection	Projection
	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million
<b>General Government</b>												
Total revenue	45,801	41,755	46,705	49,970	50,780	56,194	58,087	60,068	60,387	61,729	63,583	65,540
Tax revenue	10,608	10,937	11,840	12,598	12,547	12,919	13,244	14,005	15,164	15,777	16,601	17,525
Total expenses	46,028	46,313	46,217	49,551	50,112	53,369	56,335	59,226	60,198	61,416	63,101	64,753
Employee expenses	18,250	18,130	17,816	18,592	20,045	21,258	22,678	24,096	25,396	25,728	26,709	27,724
Net operating balance	(226)	(4,558)	488	420	668	2,825	1,752	841	189	313	483	787
Capital purchases	7,971	7,001	6,323	4,635	4,044	4,620	5,127	6,060	6,727	7,125	7,963	6,179
Net capital purchases	5,241	3,387	3,085	996	1,163	2,265	2,339	3,518	3,716	3,980	4,763	2,518
Fiscal balance	(5,467)	(7,944)	(2,597)	(576)	(495)	560	(586)	(2,677)	(3,527)	(3,667)	(4,280)	(1,731)
Borrowings with QTC	28,391	36,508	39,864	41,343	34,200	31,358	29,256	29,933	32,781	35,218	40,174	42,589
Leases and similar arrangements <sup>3</sup>	1,126	1,370	1,503	1,761	1,286	1,882	2,152	2,623	5,824	7,071	6,943	6,966
Securities and Derivatives	1	1	1	(0)	(0)	(0)	122	122	122	122	122	122
Net debt	(5,720)	2,466	5,208	5,749	654	(355)	(497)	1,661	8,001	12,306	16,961	19,562
<b>Non-Financial Public Sector</b>												
Total revenue	52,307	49,181	53,502	56,178	57,393	64,855	66,164	67,699	68,272	69,542	71,558	74,040
Capital purchases	11,980	10,774	9,313	7,811	6,852	7,291	7,644	8,856	10,223	10,447	11,210	8,640
Borrowings with QTC	60,205	67,116	70,668	73,256	71,160	69,107	66,964	68,141	71,954	75,413	80,645	82,972
Leases and similar arrangements <sup>3</sup>	1,127	1,559	1,752	1,802	1,316	1,882	2,152	2,623	6,217	7,430	7,266	7,254
Securities and Derivatives	210	411	216	175	446	895	405	671	544	502	492	492

Notes:  
 1. Bracketed numbers represent negative amounts.  
 2. With the implementation of the latest GFS Manual (AGFS15), some categories have been restated above to ensure comparability.  
 3. Approximately \$2.2 billion increase in General Government and \$2.6 billion in NFS in 2019-20 on adoption of the new lease accounting standard AASB 16

Table D.2 Key Fiscal Indicators<sup>1</sup>

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Actual <sup>2</sup> %	Actual <sup>2</sup> %	Actual <sup>2</sup> %	Actual <sup>2</sup> %	Actual <sup>2</sup> %	Actual <sup>2</sup> %	Actual <sup>2</sup> %	Revised %	Budget %	Projection %	Projection %	Projection %
<b>General Government</b>												
Revenue/GSP	16.5	14.8	16.1	16.9	16.7	17.2	16.7	16.3	15.8	15.6	15.4	15.2
Tax/GSP	3.8	3.9	4.1	4.3	4.1	4.0	3.8	3.8	4.0	4.0	4.0	4.1
Own source revenue/GSP	8.3	8.3	8.6	8.9	8.9	8.8	8.6	8.5	8.5	8.1	8.0	7.9
Expenses/GSP	16.5	16.4	16.0	16.8	16.5	16.3	16.2	16.0	15.8	15.6	15.3	15.0
Employee expenses/GSP	6.6	6.4	6.2	6.3	6.6	6.5	6.5	6.5	6.7	6.5	6.5	6.4
Net operating balance/GSP	(0.1)	(1.6)	0.2	0.1	0.2	0.9	0.5	0.2	0.0	0.1	0.1	0.2
Capital purchases/GSP	2.9	2.5	2.2	1.6	1.3	1.4	1.5	1.6	1.8	1.8	1.9	1.4
Net cash inflows from operating activities/Net cash flows from investments in non-financial assets	36.3	(40.7)	45.9	97.5	122.9	134.2	106.7	78.8	59.7	64.5	54.7	69.9
Fiscal balance/GSP	(2.0)	(2.8)	(0.9)	(0.2)	(0.2)	0.2	(0.2)	(0.7)	(0.9)	(0.9)	(1.0)	(0.4)
Total borrowings/GSP	10.6	13.4	14.3	14.6	11.7	10.2	9.1	8.9	10.2	10.7	11.4	11.5
Total Borrowings/Revenue	64.4	90.7	88.6	86.3	69.9	59.2	54.3	54.4	64.1	68.7	74.3	75.8
Revenue growth	9.0	(8.8)	11.9	7.0	1.6	10.7	3.4	3.4	0.5	2.2	3.0	3.1
Tax growth	6.3	3.1	8.3	6.4	(0.4)	3.0	2.5	5.7	8.3	4.0	5.2	5.6
Expenses growth	5.9	0.6	(0.2)	7.2	1.1	6.5	5.6	5.1	1.6	2.0	2.7	2.6
Employee expenses growth	8.5	(0.7)	(1.7)	4.4	7.8	6.1	6.7	6.3	5.4	1.3	3.8	3.8
<b>Non-Financial Public Sector</b>												
Capital purchases/GSP	4.3	3.8	3.2	2.6	2.3	2.2	2.2	2.4	2.7	2.6	2.7	2.0
Total borrowings/GSP	22.1	24.5	25.1	25.5	24.0	22.0	20.0	19.4	20.7	21.1	21.4	21.0
Total Borrowings/Revenue	117.7	140.5	135.8	133.9	127.1	110.8	105.1	105.5	115.3	119.8	123.5	122.5
Net financial liabilities <sup>2</sup> /revenue	115.6	133.4	129.8	125.2	127.4	111.2	110.4	115.4	124.0	127.2	128.2	123.9

Notes:

1. Bracketed numbers represent negative amounts.
2. UFF definition, which is equal to total financial assets less investments in other public sector entities less total liabilities. Has been revised since 2018-19 MYFER to correct an error in the calculation.
3. With the implementation of the latest GFS Manual (AGFS15), some categories have been restated above to ensure comparability.