



# FISCAL PLAN

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## REVENUE

**BUDGET** 2017

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### REVENUE

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# REVENUE

## REVENUE OUTLOOK

Total revenue is forecast to be \$45 billion in 2017-18, \$2.1 billion, or 4.8% higher than the 2016-17 forecast. This is still \$4.5 billion below the peak of \$49.5 billion reached in 2014-15, when the dramatic collapse in global oil prices began. While resource revenue was most severely impacted by the oil price decline, other revenue sources were affected by the negative consequences it had on Alberta's economy, business investment and corporate profits, and employment and household income. Alberta's economy contracted by 3.6% in 2015, and is estimated to have contracted by 2.8% in 2016.

Total revenue forecast to be \$45 billion in 2017-18.

Oil prices began strengthening in the last half of 2016, and are anticipated to rise slowly over the medium term. Employment gains also started about the same time. Oil sands production, rigs drilling and manufacturing exports are increasing. Business costs have been reduced, significant government infrastructure investment continues, and Fort McMurray is rebuilding. These all contribute to estimated moderate economic expansion of 2.6% in 2017.

Government revenue is also expected to recover, with bitumen royalties doubling in 2017-18 and corporate income tax revenue improving with growth of 17.2%. Carbon levy revenue also increases as the levy applies for the full fiscal year. These are partly offset by lower investment income and personal income tax revenue, with forecast normal returns after several years of exceptional results for the former, and the latter lower due mainly to the lingering affects of the downturn and job losses on households. Total revenue is forecast to reach \$51.8 billion by 2019-20, \$6.8 billion higher than 2017-18, driven mainly by increases of \$2.7 billion in bitumen royalties and \$2.9 billion in tax revenue.

Total revenue forecast to reach \$51.8 billion by 2019-20.

The government is committed to making life more affordable for Albertans, and diversifying the economy. Revenue initiatives supporting these goals include reducing school fees, extending the post-secondary tuition freeze and tax credits under the Job Plan, the Petrochemicals Diversification Plan, the small business corporate income tax rate reduction, and lowering growth in property taxes.

School fees reduced and tuition freeze extended in Budget 2017.

### Total Revenue

(millions of dollars)

	2015-16		2016-17		2017-18	2018-19	2019-20
	Actual	Budget	Forecast	Estimate	Target	Target	
Personal income tax	11,357	11,405	11,459	11,177	11,609	12,159	
Corporate income tax	4,195	4,325	3,344	3,918	4,464	5,072	
Other tax revenue	5,168	6,037	5,743	6,667	7,250	7,431	
Resource revenue – Bitumen royalties	1,223	656	1,263	2,546	3,198	5,269	
Resource revenue – other	1,566	708	1,167	1,208	1,028	1,359	
Federal transfers	7,142	7,278	7,943	7,988	7,870	8,079	
Investment income	2,544	2,115	2,886	2,193	2,231	2,315	
Net income from business enterprises	2,570	2,416	2,404	2,506	2,568	2,662	
Premiums, fees and licences	3,574	3,649	3,646	3,683	3,770	3,863	
Other revenue	3,161	2,846	3,083	3,129	3,655	3,573	
<b>Total Revenue</b>	<b>42,500</b>	<b>41,435</b>	<b>42,938</b>	<b>45,015</b>	<b>47,643</b>	<b>51,782</b>	

## COMMODITY PRICES AND ALBERTA GOVERNMENT REVENUE

Alberta's resource-based economy and government revenue are affected by swings in globally-traded commodities. This makes fiscal planning challenging, as revenue can increase or decrease rapidly. The drop in oil prices in 2014, and its impact on Albertans, have been especially severe relative to past swings.

Natural gas prices climbed dramatically between 1999-00 and 2008-09, as it was thought that supply was limited. Revenue from natural gas royalties and corporate income taxes followed suit, and total revenue peaked in 2006-07 and 2007-08. But technological advances beginning in 2006 made it possible to access large gas deposits from shale formations, and natural gas prices began to weaken. When global financial markets seized in 2008-09, leading to a global recession in 2009-10, natural gas prices - and government natural gas royalties - collapsed, and have not recovered.

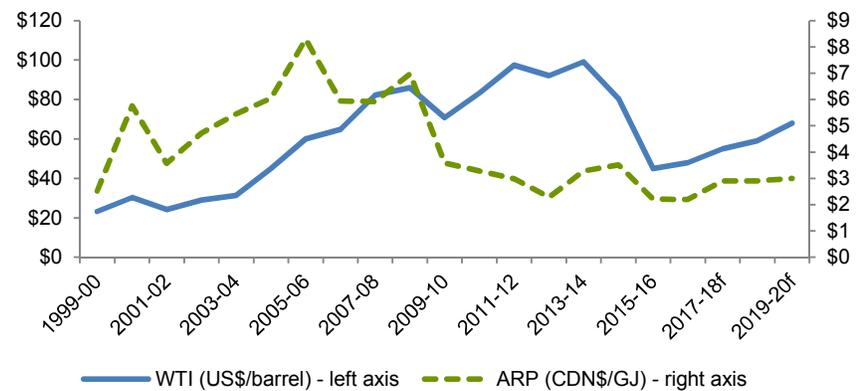
Alberta was fortunate that while natural gas prices had been booming, oil prices had started to rise in 2005, and bitumen production was developing. In 2008-09, oil prices averaged almost US\$86 per barrel, and while they declined in 2009-10, they recovered quickly, then soared for four years. Once again, government revenue mirrored the swing in prices, with rapidly increasing oil and bitumen royalties, and strong

corporate income tax revenue. Again, total government revenue peaked in 2013-14 and 2014-15. Then the dramatic oil price crash occurred in 2014. Once again, the energy price swing resulted in a significant decline in government revenue.

In response to the oil price collapse, the government is focused on ensuring stability in government programs and investing in infrastructure to support Albertans and the economy.

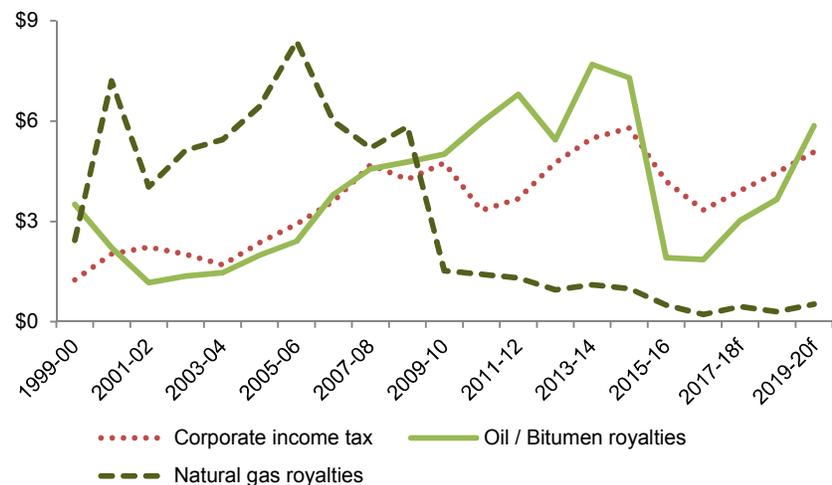
Diversifying the Alberta economy and lowering dependence on energy prices is considered a prudent solution to the energy roller coaster Alberta is on. The government is deepening the strategy by incenting diversification within the energy sector, leveraging Alberta's strengths through petrochemical initiatives, requiring more responsible and forward-thinking resource development, and encouraging innovation in energy production to help protect the environment.

### Prices of Oil and Natural Gas



### Royalty and Corporate Income Tax Revenue

(billions of dollars)



## NON-RENEWABLE RESOURCE REVENUE

**Non-renewable resource revenue** in 2017-18 accounts for 8.3% of total revenue, though its share is expected to grow to 12.8% by 2019-20. It is forecast at \$3.8 billion, \$1.3 billion, or 55% higher than in 2016-17, but still \$5.2 billion or 58% lower than in 2014-15. Resource revenue is estimated to increase by an average of 33% per year between 2017-18 and 2019-20, to \$6.6 billion, driven by substantial growth in bitumen royalties from improving oil prices, rising production and lower operating costs and capital spending.

The forecast assumes a “revenue neutral” impact from the January 1, 2017 modernized royalty framework for conventional oil and natural gas, although the new framework is designed to reward more efficient, lower-cost production and incent investment, both of which would ultimately elevate royalties.

The West Texas Intermediate (WTI) oil price averaged almost US\$93 per barrel (/bbl) in the four fiscal years 2010-11 to 2013-14, but then tumbled 55%, from US\$105/bbl in June 2014 to under US\$48 in March 2015. The price collapse arose from global supply growth exceeding demand growth, with supply boosted by significant increases in North American production and returning output from Iraq and Libya, and demand muted by a slowdown in developing economies. OPEC members in late 2014 also decided not to cut production to support prices, but rather sought to protect market share by forcing higher-cost producers to restrain output. The January 2016 Iran nuclear deal that removed economic sanctions opened the door for additional Iranian production, and with demand growth uncertain, oil prices continued falling, sinking to about US\$26/bbl in February 2016, a 75% drop from June 2014.

Prices then began to strengthen in the summer of 2016, climbing into the mid-US\$40/bbl range, due to supply disruptions, including the impact of the Wood Buffalo wildfire on Alberta production, stronger-than-anticipated global demand growth, decreasing US production, and the possibility of OPEC and non-OPEC producers agreeing to manage their output. In November 2016, OPEC members and several non-OPEC producers did formally agree to reduce output by 1.8 million barrels per day, commencing in 2017. Average monthly prices settled above US\$50/bbl in December, and have remained above that threshold since.

Most analysts expect if the OPEC agreement is complied with, and with continued global demand growth, oil supply and demand could be re-balanced by mid-2017. While US drilling has ramped up with prices over US\$50, over the medium term global demand growth is forecast to require incremental output from higher-cost producers, supporting gradually rising oil prices.

The forecast is based on the WTI oil price averaging US\$55/bbl in 2017-18, US\$59 in 2018-19 and US\$68 in 2019-20. Other factors affecting oil royalty revenue are the light-heavy oil price differential, the US-Canadian dollar exchange rate, actual Alberta production and producer costs:

- ◆ The Western Canadian Select price (WCS), a benchmark price for heavy oil (blended bitumen), is determined by the WTI US dollar price less a “light-heavy differential,” that is largely linked to costs of transporting Alberta production to Gulf Coast refineries or coastal ports for export. Sufficient

*Resource revenue in 2017-18 is estimated at \$3.8 billion, 58% lower than in 2014-15.*

*Increasing supply, slowing demand growth and OPEC’s decision not to cut production resulted in oil price decline.*

*Revenue forecast based on US\$55 oil price in 2017-18, and US\$68 by 2019-20.*

*Cost-effective transportation for Alberta production increases value to Albertans.*

pipeline capacity lowers costs and the differential, increasing prices Alberta producers can achieve; moving product by rail increases costs and the differential, lowering WCS. With Alberta production ramping up as more projects come on stream, pipeline access is expected to be insufficient by 2018, elevating the 2017-18 differential to US\$16.00/bbl, up from \$14.20 in 2016-17. The differential is forecast to reach US\$18.60 by 2019-20. The Enbridge Line 3 replacement would add sufficient pipeline capacity by 2020, and the Trans Mountain Expansion even more by 2021, decreasing the differential significantly.

- ◆ A lower US-Canadian dollar exchange rate also supports royalty revenue. The bitumen royalty rate is based on the WTI price expressed in Canadian dollars, so the royalty rate is higher with a lower Canadian dollar. A lower dollar also increases oil prices when they are converted from US dollars into Canadian dollars, elevating producers' revenue and incomes in Canadian dollars. The exchange rate is expected to strengthen over the forecast period.
- ◆ Bitumen production continues to grow, and is estimated to increase 32.5% between 2016-17 and 2019-20 as projects currently under construction are completed. Conventional crude oil production is expected to decline.
- ◆ Several years of low oil prices have required producers to seek efficiencies and cut costs, including for labour. Prices for condensate used to dilute bitumen for transportation have also declined, as condensate prices follow oil prices. Natural gas is a significant input for certain oil sands operations and gas prices are forecast to remain weak. Since costs are part of royalty calculations, these support royalty revenue, though it is also the case that royalty rates are sensitive to prices, so that rates are lower with lower prices.

*Bitumen royalties estimated at \$2.5 billion in 2017-18, twice as much as in 2016-17, but still only half as much as in 2014-15.*

**Bitumen royalties** are estimated at \$2.5 billion in 2017-18, \$1.3 billion higher than in 2016-17, but still about half the revenue reported in 2014-15. They are forecast to increase to \$5.3 billion by 2019-20, with an average annual growth rate of 44% between 2017-18 and 2019-20. The main drivers are increasing oil prices, higher production and significantly lower operating costs and reduced capital spending.

The government will supply bitumen to the North West Upgrader, tentatively scheduled to begin operations January 1, 2018, which will upgrade bitumen into higher-valued products such as ultra-low sulphur diesel. The Province will receive a portion of the revenue from the sale of the upgraded product, but is also responsible to pay monthly cost of service tolls for the 30-year term of the contract. The financial return from the project is heavily dependent on the costs of constructing and operating the facility, as well as the price differential between bitumen and upgraded products over the term of the contract.

**Conventional oil royalties** are estimated at \$476 million in 2017-18, \$124 million or 21% lower than in 2016-17, and \$1.8 billion or 79% lower than in 2014-15. While they are anticipated to increase to \$589 million by 2019-20, reduced drilling over the last several years has lowered forecast production and in turn royalty revenue.

## Oil Assumptions

	2015-16		2016-17		2017-18	2018-19	2019-20
	Actual	Budget	Forecast	Estimate	Target	Target	
<b>Revenue (\$ millions)</b>							
Bitumen royalty	1,223	656	1,263	<b>2,546</b>	3,198	5,269	
Crude oil royalty	689	333	600	<b>476</b>	460	589	
<b>Prices</b>							
West Texas Intermediate (US\$/bbl)	45.00	42.00	48.00	<b>55.00</b>	59.00	68.00	
WCS @ Hardisty (Cdn\$/bbl)	40.86	36.40	44.50	<b>51.30</b>	53.00	63.40	
Differential (US\$/bbl)	(13.40)	(15.20)	(14.20)	<b>(16.00)</b>	(18.00)	(18.60)	
<b>Production (thousands of barrels / day)</b>							
Conventional	508	524	436	<b>416</b>	403	394	
Raw bitumen	2,489	2,668	2,488	<b>2,906</b>	3,195	3,296	
<b>Exchange rate</b>							
(US¢/Cdn\$)	76.3	73.5	76.0	<b>76.0</b>	77.5	78.0	

**Natural gas and by-product royalties** are estimated at \$455 million in 2017-18, \$236 million higher than in 2016-17, but still less than half of the \$989 million reported in 2014-15. The increase is due to lower plant operating costs and costs per well, an estimated increase in natural gas prices, and to the higher oil price, as prices and associated revenue from natural gas by-products, such as propane, butane and pentane, more closely follow oil prices. Royalties are forecast at \$523 million in 2019-20.

The immediate outlook for natural gas prices continues to be mixed, with abundant natural gas supplies keeping prices low. North American natural gas storage is high, after weather in both the summer and winter was mild. While the low oil prices over the last several years reduced oil drilling, and therefore reduced “wet” natural gas production from associated wet plays (which account for about 35% of US gas production), US shale gas production is expected to more than keep pace with demand growth arising from US liquid natural gas exports and retirement of coal-fired electricity plants over the medium term.

*Immediate outlook for natural gas prices and royalties remains weak.*

The Alberta Reference Price (ARP) in 2017-18 is estimated at Cdn\$2.90/GJ, 75 cents higher than 2016-17, and is forecast to remain around there for the following two years, reaching \$3.00/GJ by 2019-20. The ARP is buoyed by increasing demand from expanding oil sands operations, and petrochemical and electricity-generation developments. Natural gas production trends down due to lower drilling and as exports are impacted by expanding US production.

The Petrochemicals Diversification Program provides up to \$500 million in royalty credits for investment in facilities to upgrade methane and propane to higher-value products such as propylene and polypropylene. Three facilities, with estimated costs of \$5.6-\$6 billion, have been approved. The royalty credits will be provided for the three years following completion in 2021. In addition to ongoing economic diversification benefits, about 4,000 construction jobs are estimated, and 245 positions will be required to operate the facilities.

*Petrochemicals Diversification Program supports \$6 billion in private sector investments, 4,000 construction jobs and 245 permanent positions.*

## Natural Gas Assumptions

	2015-16		2016-17		2017-18	2018-19	2019-20
	Actual	Budget	Forecast	Estimate	Target	Target	
Revenue (\$ millions)	493	151	219	<b>455</b>	304	523	
Price (Cdn\$/GJ)	2.21	2.40	2.15	<b>2.90</b>	2.90	3.00	
Production (billions of cubic feet)	4,255	4,765	4,188	<b>4,094</b>	4,026	3,966	

**Bonuses and sales of Crown land leases** revenue in 2017-18 is estimated at \$148 million, and is forecast to be relatively flat for the next two years, with \$134 million forecast for 2019-20. With the recent low oil prices, weak natural gas price prospects, industry cost reductions and restraint, and significant global economic uncertainty, Alberta business investment has declined. In 2016, bonuses and total hectares sold were the lowest in 24 years. The forecast is for fewer hectares to be sold in 2017-18, but at higher prices per hectare.

### Non-Renewable Resource Revenue

(millions of dollars)

	2015-16	2016-17		2017-18	2018-19	2019-20
	Actual	Budget	Forecast	Estimate	Target	Target
Bitumen royalty	1,223	656	1,263	<b>2,546</b>	3,198	5,269
Crude oil royalty	689	333	600	<b>476</b>	460	589
Natural gas & by-products royalty	493	151	219	<b>455</b>	304	523
Bonuses & sales of Crown leases	203	95	191	<b>148</b>	144	134
Rentals and fees	167	118	144	<b>117</b>	109	103
Coal royalty	14	11	13	<b>12</b>	11	10
<b>Total Resource Revenue</b>	<b>2,789</b>	<b>1,364</b>	<b>2,430</b>	<b>3,754</b>	<b>4,226</b>	<b>6,628</b>

## TAX REVENUE

*Tax revenue of \$21.8 billion in 2017-18 is about half of total revenue.*

**Tax revenue** is forecast at \$21.8 billion in 2017-18, 48% of total revenue.

This is an increase of \$1.2 billion, or 5.9% from 2016-17, mainly as the Climate Leadership Plan carbon levy applies for the full fiscal year. Tax revenue is forecast to grow by an average of 6.5% per year between 2017-18 and 2019-20, reaching \$24.7 billion, with much of this \$2.9 billion increase due to income taxes recovering from current weakness.

*Personal income tax revenue is \$11.2 billion in 2017-18, 25% of total revenue.*

**Personal income tax** revenue is estimated at \$11.2 billion in 2017-18, a decrease of \$282 million from 2016-17. However, 2016-17 revenue included a \$510 million positive prior-years' adjustment from updated 2015 assessments that indicate 2014-15 and 2015-16 reported revenue was too low. Removing this adjustment, 2016-17 revenue would be under \$11 billion, reflecting an estimated 3.5% decline in primary household income in 2016. Without the prior-years' adjustment, base personal income tax revenue is estimated to increase by \$228 million, or 2.1% in 2017-18 from 2016-17. This relatively sluggish growth, compared to rates experienced before the recession, reflects the modest recovery forecast for Alberta employment, wages and primary household income. Personal income tax revenue is then forecast to increase by an average of 4.3% per year between 2017-18 and 2019-20, as the economic recovery strengthens, but this is still below the pace experienced in recent years.

**Corporate income tax** is forecast at \$3.9 billion in 2017-18, \$574 million or 17.2% higher than 2016-17, but \$1.9 billion or 32% lower than it was in 2014-15. The net corporate operating surplus (corporate profits) in 2015 was much weaker than estimated in *Budget 2016*, and this lowers the base used to forecast revenue for future years. In addition, the actual decline in 2016 corporate profits has been worse than expected, in part due to the Wood Buffalo wildfire, which reduced revenue by about \$200 million. The decline in the net corporate operating surplus is now estimated to have been 69% in 2015 and 35% in 2016. Corporate profits are forecast to rebound in 2017 with 66%

growth, due to higher oil prices, reduced costs, and strong export growth. In addition to higher oil-related exports from expanding production, increasing exports of machinery and equipment, food manufacturing, petrochemical products and engineering and technical services are anticipated, assisted by a lower Canadian-US dollar exchange rate. Since corporate profits dropped so severely, they are not expected to reach pre-recession levels until after 2019-20, and the impact on corporate income tax revenue is expected to be delayed, in part as losses are carried forward. Corporate income tax revenue increases by \$1.2 billion between 2017-18 and 2019-20, an average of 13.8% per year, due mainly to higher forecast oil prices.

Corporate profits to rebound in 2017-18.

The Capital Investment Tax Credit for spending on property or other capital in eligible industries introduced as part of the Jobs Plan is being extended for a year, with revenue reduced by \$42 million in 2017-18 and \$21 million in 2018-19. Another \$5 million of the original budget is now being reported as expense in order to provide flexibility for businesses to access the program.

The small business corporate income tax rate was reduced from 3% to 2%, effective January 1, 2017, to help small businesses deal with higher costs resulting from the carbon levy. The revenue foregone, estimated at \$40 million in 2016-17, \$175 million in 2017-18, \$190 million in 2018-19, and then \$200 million by 2019-20, is being offset by Climate Leadership Plan revenue.

Climate Leadership Plan includes reducing the small business tax rate by 33%.

**Education property tax revenue** is forecast at \$2.4 billion in 2017-18, an increase of \$32 million, or 1.3% from 2016-17. Instead of setting the fiscal year requisition amounts based on 32% of the total education system operating expense target, which would have resulted in a large jump, the government has chosen to freeze mill rates and collect less revenue. The residential/farm rate remains at \$2.48 per \$1,000 of equalized assessment, and the non-residential rate remains at \$3.64 per \$1,000 of equalized assessment. Education property tax revenue is forecast to increase \$208 million by 2019-20, an average of 4.2% per year between 2017-18 and 2019-20, based on returning to the 32% methodology of calculating the requisition. However, the government will determine the approach for setting the requisition amount as part of each annual budget process, providing flexibility with respect to property tax policy.

Education property tax revenue growth contained at 1.3%, with mill rates frozen.

**Other tax revenue** is forecast at \$4.2 billion in 2017-18, an increase of \$892 million from 2016-17, with \$808 million of this increase due to the full-year application of the carbon levy, implemented January 1, 2017. Other tax revenue is anticipated to grow \$556 million to \$4.8 billion, an average rate of 6.4% per year between 2017-18 and 2019-20, with the carbon levy accounting for \$378 million of the increase.

## Tax Revenue

(millions of dollars)

	2015-16		2016-17		2017-18	2018-19	2019-20
	Actual	Budget	Forecast	Estimate	Target	Target	
Personal income tax	11,357	11,405	11,459	11,177	11,609	12,159	
Corporate income tax	4,195	4,325	3,344	3,918	4,464	5,072	
Education property tax	2,255	2,414	2,414	2,446	2,585	2,654	
Carbon levy	-	274	230	1,038	1,396	1,416	
Other taxes	2,913	3,349	3,099	3,183	3,269	3,361	
<b>Total</b>	<b>20,720</b>	<b>21,767</b>	<b>20,546</b>	<b>21,762</b>	<b>23,323</b>	<b>24,662</b>	

## FEDERAL TRANSFERS

*Federal transfers include wildfire assistance in 2016-17, and increased infrastructure support in 2017-18.*

**Federal transfers** are forecast at \$8 billion in 2017-18, about 18% of total revenue. This is an increase of \$45 million or 0.6% from 2016-17, though 2016-17 revenue includes assistance for the 2016 Wood Buffalo wildfire of \$509 million. Removing this, 2017-18 revenue is up \$554 million or 7.5% from 2016-17, due mainly to a \$419 million net increase in infrastructure support almost entirely for the new programs for public transit and clean water and wastewater projects.

The Canada Social Transfer (CST) and Canada Health Transfer (CHT) grow in line with the federal annual escalators and changes to Alberta's share of the national population. For CST, the escalator is 3%. As previously scheduled, the escalator for the CHT is being changed this year. It will now be based on the higher of the three-year average of national nominal GDP growth, or 3%. For 2017-18, the escalator is 3% as nominal GDP has averaged less than 3% over the past three years.

*Forecast includes targeted funding for home care and mental health care pursuant to proposed 10-year agreement.*

The forecast includes estimated funding targeted for home care and mental health care as part of a ten-year agreement with the federal government, although the agreement has not been finalized. Other federal transfers thus include an additional \$35 million in 2017-18, \$100 million in 2018-19 and \$130 million in 2019-20.

Federal transfers are forecast to grow by an average of 0.6% between 2017-18 and 2019-20, reaching \$8.1 billion, with expected, normal increases in CHT, CST and other federal transfers partly offset by the decrease associated with the ending of the two time-sensitive federal infrastructure programs.

### Transfers from Government of Canada

(millions of dollars)

	2015-16	2016-17		2017-18	2018-19	2019-20
	Actual	Budget	Forecast	Estimate	Target	Target
Canada Health Transfer	4,014	4,223	4,201	<b>4,360</b>	4,515	4,711
Canada Social Transfer	1,516	1,563	1,558	<b>1,614</b>	1,667	1,723
Transfers to SUCH sector	404	500	504	<b>479</b>	497	511
Agriculture support programs	308	300	377	<b>293</b>	305	308
Infrastructure support	267	282	322	<b>741</b>	353	269
2016 Wood Buffalo wildfire assistance	-	-	509	-	-	-
Other transfers	633	410	472	<b>501</b>	533	557
<b>Total</b>	<b>7,142</b>	<b>7,278</b>	<b>7,943</b>	<b>7,988</b>	<b>7,870</b>	<b>8,079</b>

## INVESTMENT INCOME

**Investment income** is forecast at \$2.2 billion in 2017-18, a \$693 million or 24% decrease from 2016-17. Investment income in 2017-18 accounts for 5% of government revenue. The decline in investment income is mainly due to significant gains from strong equity markets over the last several years, and income from those gains being realized in subsequent years as the assets are sold. The investment income forecast typically assumes that market returns will move back to “normal” rates, and as a result, investment income tends to decrease in years following significantly strong income, and as accumulated embedded gains are realized.

Investment income is estimated to increase by an average of 2.7% per year between 2017-18 and 2019-20, as income realized by the Heritage and endowment funds, and overall financial market returns, reset to normal levels. Income now includes about \$250 million from the SUCH sector, primarily reflecting reserves and post-secondary institution endowments.

Investment income from Alberta Capital Finance Authority (ACFA) is forecast to increase by an average of 5.5% per year between 2017-18 and 2019-20. ACFA accesses the government’s strong credit rating to borrow and then transfers that advantage to municipalities and other local authorities by on-lending the proceeds. A portion of the government’s general debt servicing costs reflect this activity, and ACFA’s investment income is approximately offset by the related debt servicing costs. The Agriculture Financial Services Corporation (AFSC) performs the same role for Alberta’s agriculture sector, borrowing at the government rate and lending the proceeds, with associated debt servicing costs offset by income from the loans. AFSC also acts as an insurer, and has additional funds and investment income from this activity.

*Investment income decreasing as forecast assumes normal returns following strong returns in prior years.*

*ACFA and AFSC provide government borrowing rate benefits to municipalities and farmers and make life more affordable for Albertans.*

### Fund Assets / Investment Income

(millions of dollars)

	Assets as at Mar. 31, 2016	2015-16 Actual	2016-17 Forecast	2017-18 Estimate	2018-19 Target	2019-20 Target
Heritage Savings Trust Fund	15,170	1,388	1,876	<b>1,290</b>	1,286	1,332
Endowment Funds <sup>a</sup>	3,499	347	350	<b>251</b>	273	289
Contingency Account	3,625	128	18	<b>10</b>	-	-
Alberta Capital Finance Authority	15,584	184	185	<b>178</b>	191	198
Agriculture Financial Services Corp.	4,620	132	132	<b>142</b>	145	152
SUCH sector	n.a.	297	263	<b>250</b>	257	263
Other <sup>b</sup>	593	68	62	<b>72</b>	79	81
<b>Total</b>	<b>43,091</b>	<b>2,544</b>	<b>2,886</b>	<b>2,193</b>	<b>2,231</b>	<b>2,315</b>

<sup>a</sup> Includes Alberta Heritage Foundation for Medical Research Endowment Fund, Alberta Heritage Scholarship Fund and Alberta Heritage Science and Engineering Research Fund.

<sup>b</sup> Assets include the Cancer Prevention Legacy Fund and Alberta Enterprise Corporation; investment income includes income from these sources and other investment income from a variety of smaller funds and accounts.

## OTHER REVENUE

**Other revenue** is forecast at \$9.3 billion in 2017-18, about 21% of total revenue. This is an increase of \$185 million, or 2%, from 2016-17. With moderate growth forecast for wages, population, household income, and in turn consumer spending, volume-driven revenue sources, such as gaming and liquor sales, land titles, motor vehicle licenses or other premiums and fees, are exhibiting moderate growth as well.

*School fees reduced and tuition freeze extended, helping Alberta families and students.*

To make Albertans' lives more affordable, the two-year freeze on post-secondary tuition fees is being extended another year, saving students \$16 million in 2017-18. Similarly, *Bill 1: An Act to Reduce School Fees*, will end school board charges for instructional supplies or materials, and fees for eligible students taking the bus to their designated school, savings families about \$54 million.

Other revenue is estimated to grow by \$780 million, or an average of 4.1% per year, between 2017-18 and 2019-20, reaching \$10.1 billion, mainly due to a forecast recovery in net income of Alberta Treasury Branches and increasing compliance payments to the Climate Change and Emissions Management Fund from large emitters who exceed their emissions targets, as part of the Climate Leadership Plan. Compliance payments are estimated to increase by \$401 million in 2018-19, with deeper emissions reduction targets, before declining \$78 million in 2019-20 with coal phase-out and as industry adjusts.

### Revenue from Other Sources

(millions of dollars)

	2015-16		2016-17		2017-18	2018-19	2019-20
	Actual	Budget	Forecast	Estimate	Target	Target	
AGLC - Gaming / lottery	1,553	1,451	1,428	<b>1,445</b>	1,446	1,476	
AGLC - Liquor	856	868	864	<b>876</b>	873	874	
Alberta Treasury Branches	108	27	54	<b>93</b>	180	229	
Post-secondary tuition fees	1,158	1,157	1,157	<b>1,223</b>	1,252	1,280	
Health / school board fees	702	711	695	<b>655</b>	637	641	
Other premiums, fees and licences	1,714	1,781	1,794	<b>1,805</b>	1,881	1,942	
SUCH sales, rentals, services	971	950	1,046	<b>1,033</b>	1,054	1,065	
SUCH fundraising, donations, gifts	738	627	621	<b>627</b>	640	646	
Climate Change and Emissions Management Fund	200	101	200	<b>196</b>	597	519	
Other	1,305	1,238	1,274	<b>1,365</b>	1,433	1,426	
<b>Total</b>	<b>9,305</b>	<b>8,911</b>	<b>9,133</b>	<b>9,318</b>	<b>9,993</b>	<b>10,098</b>	

## RISKS

*Alberta fiscal planning complicated by volatility in revenue, but stability in government programs is considered essential.*

Alberta relies heavily on revenue sources that are volatile and unpredictable, including non-renewable resources, corporate income tax and investment income. Since 2004-05, these revenue sources have accounted for up to 55% of total revenue, but in 2017-18 they are estimated at 22%. This revenue is linked to factors such as energy prices, equity markets, exchange rates, geopolitical events and global economic swings. These are all unpredictable, can fluctuate rapidly, and are largely outside Alberta's influence. The drop in resource revenue and corporate income tax relative to 2014-15 is directly tied to the precipitous drop in oil prices.

The degree of revenue uncertainty exposes the Alberta government uniquely relative to other governments. Like energy companies, banks and other investors, Alberta must assess the degree of risk it is willing to take associated

with its revenue outlook and spending decisions. The government decided in *Budget 2016* to build in an annual risk adjustment that reduces the bottom line, as a way to signal the possible extent of a revenue shortfall. The adjustment is \$500 million in the 2017-18 fiscal year, \$700 million in 2018-19 and then \$1 billion in 2018-19.

*Budget 2017 contains risk adjustments to bottom lines, to signal possible revenue shortfalls.*

## GLOBAL AND US ECONOMIES

- ◆ *Budget 2017* assumes global economic growth of 3.5% in 2017, based on steady growth in the US and China, and recovery from recession in Russia and several Latin American economies. Substantial risks remain.
- ◆ Weaker-than-forecast global growth would harm Alberta's revenue forecast, as oil prices would remain lower for longer.

*New US administration adds uncertainty.*

## ENERGY PRICES

- ◆ Oil prices began recovering in mid-2016. WTI is forecast to average US\$48/bbl in 2016-17, US\$55 in 2017-18, and then to slowly ascend towards US\$68 by 2019-20. The rise in the oil price is now expected to take longer, but energy analysts continue to vary on the speed of recovery and the level prices will recover to, although most expect long-term prices to reach \$70 sometime within the next five years.
- ◆ Price forecasts depend on an array of assumptions about demand and supply. Factors influencing demand include economic growth in disparate regions around the world, from the US to China to Europe, pipeline or refinery outages, and storage and speculative market activities by traders. On the supply side, the level and duration of compliance with the agreement to cut production in 2017 by OPEC and several non-OPEC members is critical, as will be the response to higher prices by the US industry. Other factors include investment and drilling decisions by other producers, geopolitical events, civil unrest or terrorist strikes, economic sanctions, or simple weather-related production disruptions.
- ◆ Without sufficient pipeline capacity, Alberta's growing bitumen production will be transported by more costly rail, increasing the light-heavy differential and lowering prices for Alberta producers and revenue for government.
- ◆ Natural gas prices remain weak due mainly to increasing production of US shale gas that has outstripped demand growth.

*Opinions on speed and level of recovery in oil prices varies among experts.*

## INTEREST RATES

- ◆ Interest rates are forecast to remain low, as global inflationary pressures remain modest. Lower rates generally help government investment income. While short-term investments perform poorly, the market value of bonds with higher rates held in endowment portfolios increase.
- ◆ Lower rates also typically encourage business investment, economic activity and consumer spending, all providing economic support to Alberta's resource-based economy harmed by the oil price weakness.
- ◆ Rates eventually will rise, posing a risk for indebted households, consumer spending and the government as substantial borrowing is planned, and higher rates make borrowing or refinancing of debt more expensive.

## EXCHANGE RATES

- ◆ The US-Canadian dollar exchange rate is forecast to average 76US¢/Cdn\$ in 2017-18, and to rise with oil prices to 78US¢/Cdn\$ by 2019-20.
- ◆ A weaker Canadian dollar increases the value of oil exports and the demand for exports priced in Canadian dollars, helping Alberta's economic growth. Changes in the exchange rate affect the profitability of energy producers, which can affect investment and government resource revenue as energy prices and contracts are mainly in US dollars. Investment income is also impacted due to significant foreign holdings in the Heritage Savings Trust Fund and endowment funds.

## EQUITY MARKETS

- ◆ While equity markets have performed well for the last several years, and government investment income has benefited, markets can be affected by a wide range of factors, such as the strength of the US economy, uncertainty regarding the European and developing economies, or fluctuations in commodity prices and interest rates.
- ◆ Alberta has significant assets invested globally in a variety of asset classes. The investment income forecast is based on long-term expected rates of return. Annual market performance and, in turn, investment income, could vary considerably from the average.

## NET CORPORATE OPERATING SURPLUS

*Corporate profits and corporate income tax difficult to forecast.*

- ◆ Corporate profits in Alberta were hit hard in 2015 and 2016 and are expected to take about half a decade to recover from low oil prices. Partly offsetting this are easing of labour and other costs, the positive impact of the low Canadian dollar on exports, and some strength in non-energy sectors. Energy investment has also declined dramatically in response to the oil price decline and as energy projects transition from the construction to production phase. However, it can be difficult to predict how forecast net corporate operating surplus translates to corporate income tax revenue, as taxable income can differ significantly from corporate profits, due to tax changes or discretionary deductions such as depreciation or prior-year losses which can be carried forward or back and affect corporate income tax revenue for years.

### Sensitivities to Fiscal Year Assumptions, 2017–18<sup>a</sup>

(millions of dollars)

	Change	Net Impact
Oil price (WTI US\$/bbl)	-\$1	-310
Light-heavy oil price differential (US\$/bb)	+\$1	-285
Natural gas price (Cdn\$/GJ)	-10¢	-45
Exchange rate (US¢/Cdn\$)	+ 1¢	-215
Interest rates	+1%	-230
Primary household income	-1%	-160

<sup>a</sup> Sensitivities are based on current assumptions of prices and rates and show the effect for a full 12 month period. Sensitivities can vary significantly at different price and rate levels. The energy price sensitivities do not include the potential impact of price changes on the revenue from land lease sales.