

**01/26/16**

**PRESENTATION**

**FALL 2015**

**REVENUE**

**FORECAST**

<TARGET><BILL></BILL><SUBJECT>01-26-16 PRESENTATION  
FALL 2015 REVENUE  
FORECAST</SUBJECT><COMM>HFIN29</COMM></TARGET>



ALASKA STATE LEGISLATURE  
HOUSE FINANCE COMMITTEE

State Capitol, Room 519

Rep. Mark Neuman, Co-Chair

Rep. Steve Thompson, Co-Chair

Tuesday, January 26, 2016

1:30 PM

Agenda:

Fall 2015 Revenue Forecast

Commissioner Randall Hoffbeck and Chief Economist John Tichotsky

FY17 Budget Overview:

Department of Revenue

Presenters:

Commissioner Randall Hoffbeck, Department of Revenue

Dan DeBartolo, Administrative Services Director, Department of Revenue

RH  
JT  
DD

Hoffbeck

John Tichotsky

Dan DeBartolo



# Alaska Department of Revenue



## Fall 2015 Revenue Forecast Presentation

January 26, 2016

Randall Hoffbeck, Commissioner  
Alaska Department of Revenue

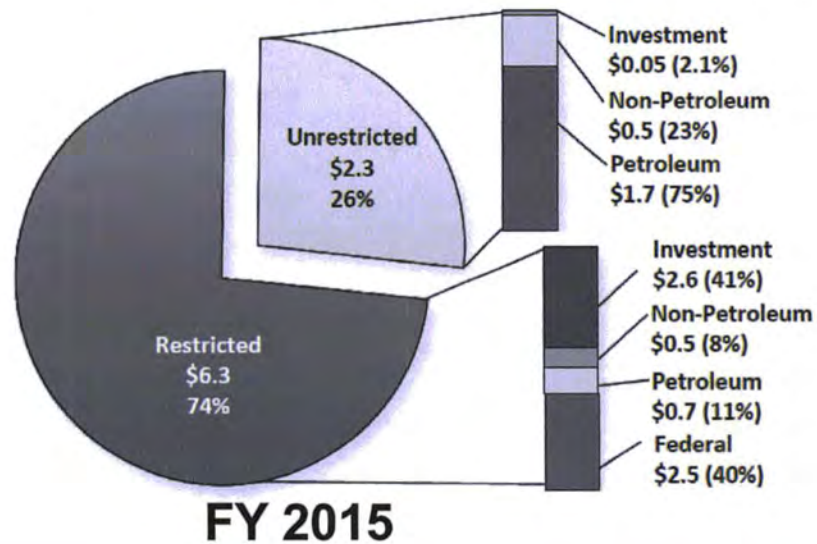
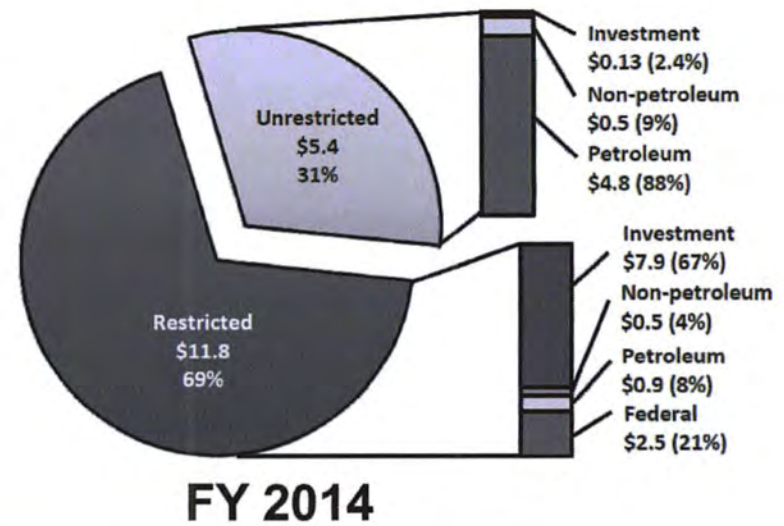
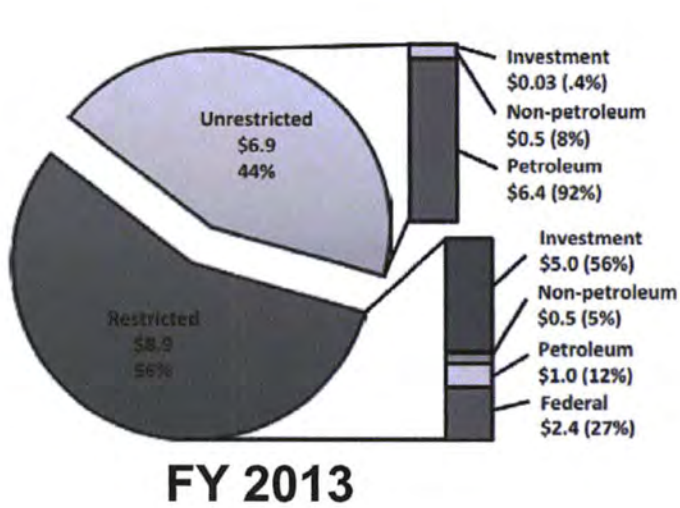


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## Forward Looking Statements

- All data is based on the DOR Fall 2015 Forecast.
- This is a forecast. All figures and narratives in this document that are not based on events that have already occurred, constitute forecasts or “forward-looking statements.” These numbers are projections based on assumptions regarding uncertain future events and the responses to those events. Such figures are, therefore, subject to uncertainties and actual results will differ, potentially materially, from those anticipated. The Department of Revenue attempts to capture these uncertainties in order to provide policymakers and the general public with a general understanding of the scale and scope of future revenue streams. The official forecast process takes into account many possible outcomes and attempts to minimize deviations from what is likely to happen. Readers are cautioned to take uncertainty into account when considering forward-looking statements in making decisions. This forecast supersedes all prior estimates or forecasts as the official forecast of the department. Therefore, all prior forecasts should be used only for comparison purposes.

# Structure of Revenue FY 2013, FY 2014, FY 2015



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# FALL 2015

# Revenue Forecast



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## Methods: What Do We Forecast at DOR?

### Mostly Petroleum and Non-petroleum Revenue

- We directly forecast **Petroleum Revenue**
  - the largest component, accounting for **75%** of state unrestricted revenue in FY 2015
  - “Petroleum Revenue” includes severance taxes, royalties, corporate income tax, and all other revenue from oil companies
- We directly forecast **Non-petroleum Revenue**
- We use someone else’s forecast for **Investment Revenue**
- We use the Federal Revenue authorized for spending as the forecast
  - It is typically 20%-30% more than actually gets spent.
- DOR compiles all different revenue streams and compiles them in the annual Revenue Sources Book

## Oil Revenue Forecasting

### Three Factors for Production Tax Revenue Forecast

$REVENUE = (\text{Net value} * \text{Tax Rate}) - \text{Credits}$   
taken against liability<sup>1</sup>

$\text{Net value} = (\text{Price} * \text{Production}) - \text{Costs}$

1. Price
2. Production
3. Costs
  1. Capital expenditures
  2. Operating expenditures
  3. Transportation cost



<sup>1</sup> DOR also forecasts refundable credits, but these are paid out of the General Fund and do not appear in the revenue forecast.

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## FALL 2015 HIGHLIGHTS

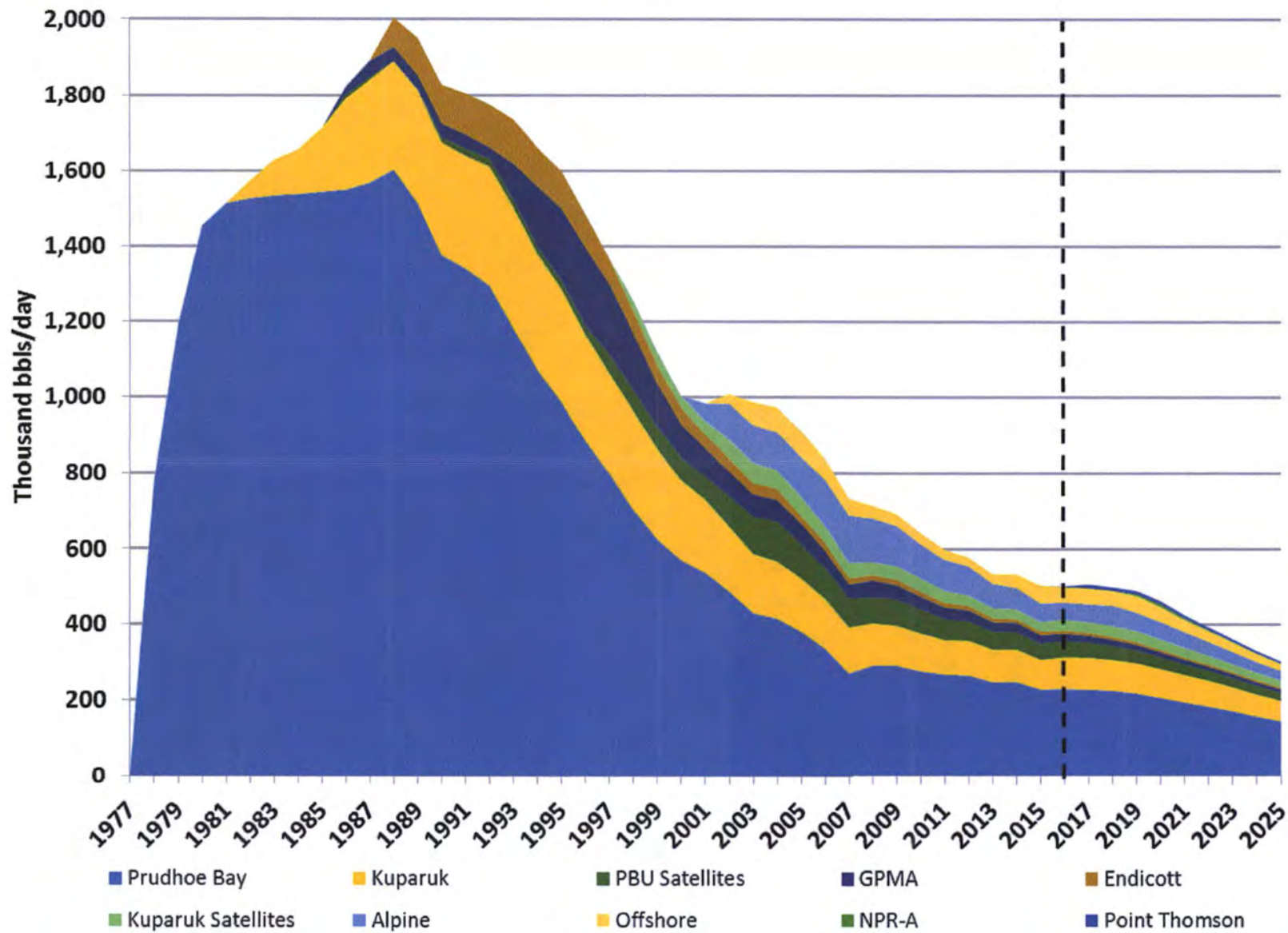
- Input changes relative to the 2015 Spring Forecast.
  - Oil price forecasts have been reduced for all years in the forecast.
    - Long term prices now expected to settle around \$50 - \$70 real.
  - Capital expenditures forecasts have been reduced for all years in the forecast.
  - Oil production forecasts have been reduced for all years in the forecast.
  - Correspondingly, unrestricted revenues have been revised downward.
- Revenue impacts largely due to change in oil price assumptions.
- Lease expenditure (or investment) in the oil fields expected to decline, which will lead to less expected “new” production in the future.
  - Many projects have been deferred until oil prices improve.

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# Fall 2015 Production Forecast

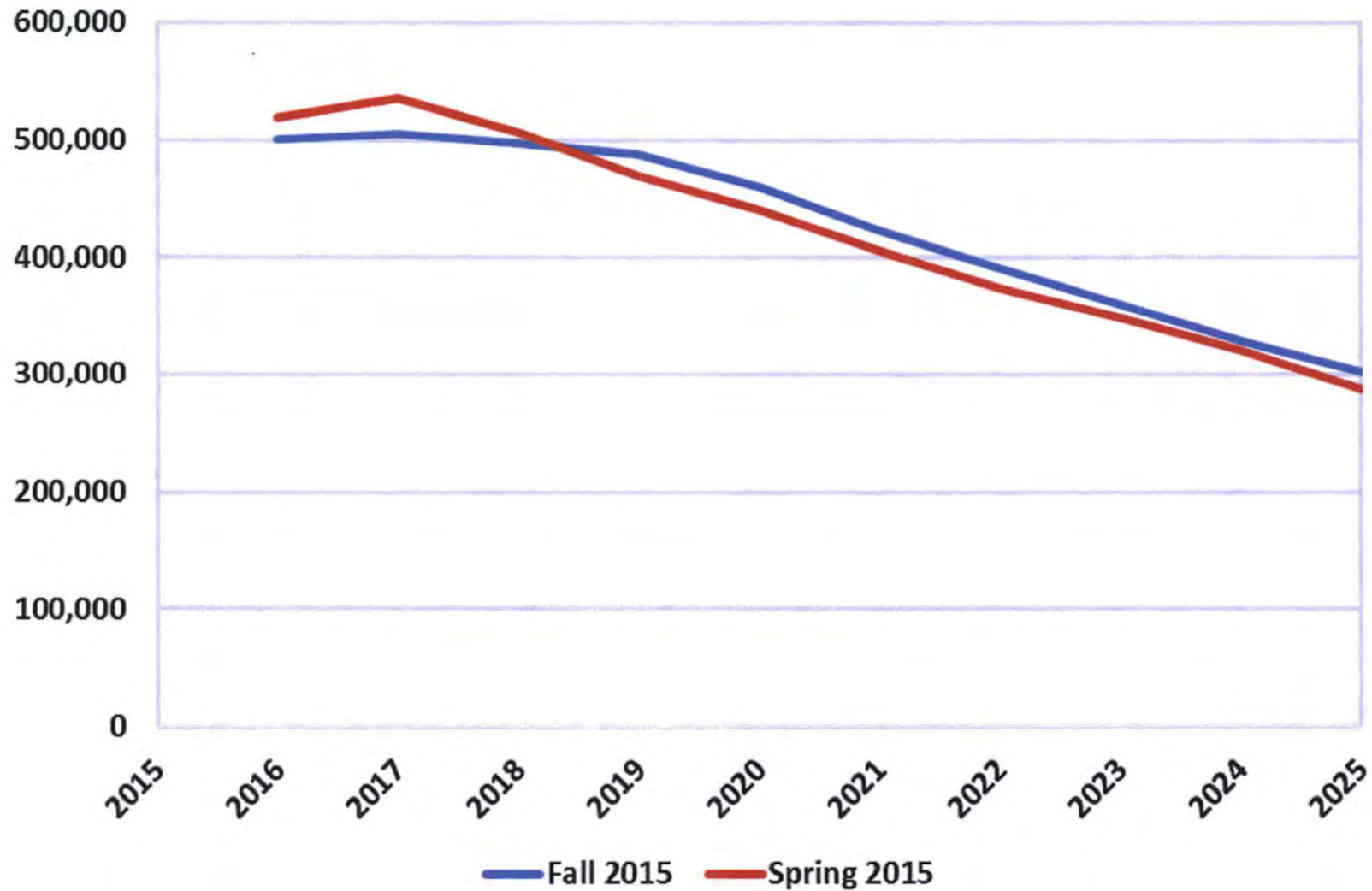


# Production History and Forecast



Source: Department of Revenue - Revenue Sources Book Fall 2015

## ANS Production Forecast Comparison



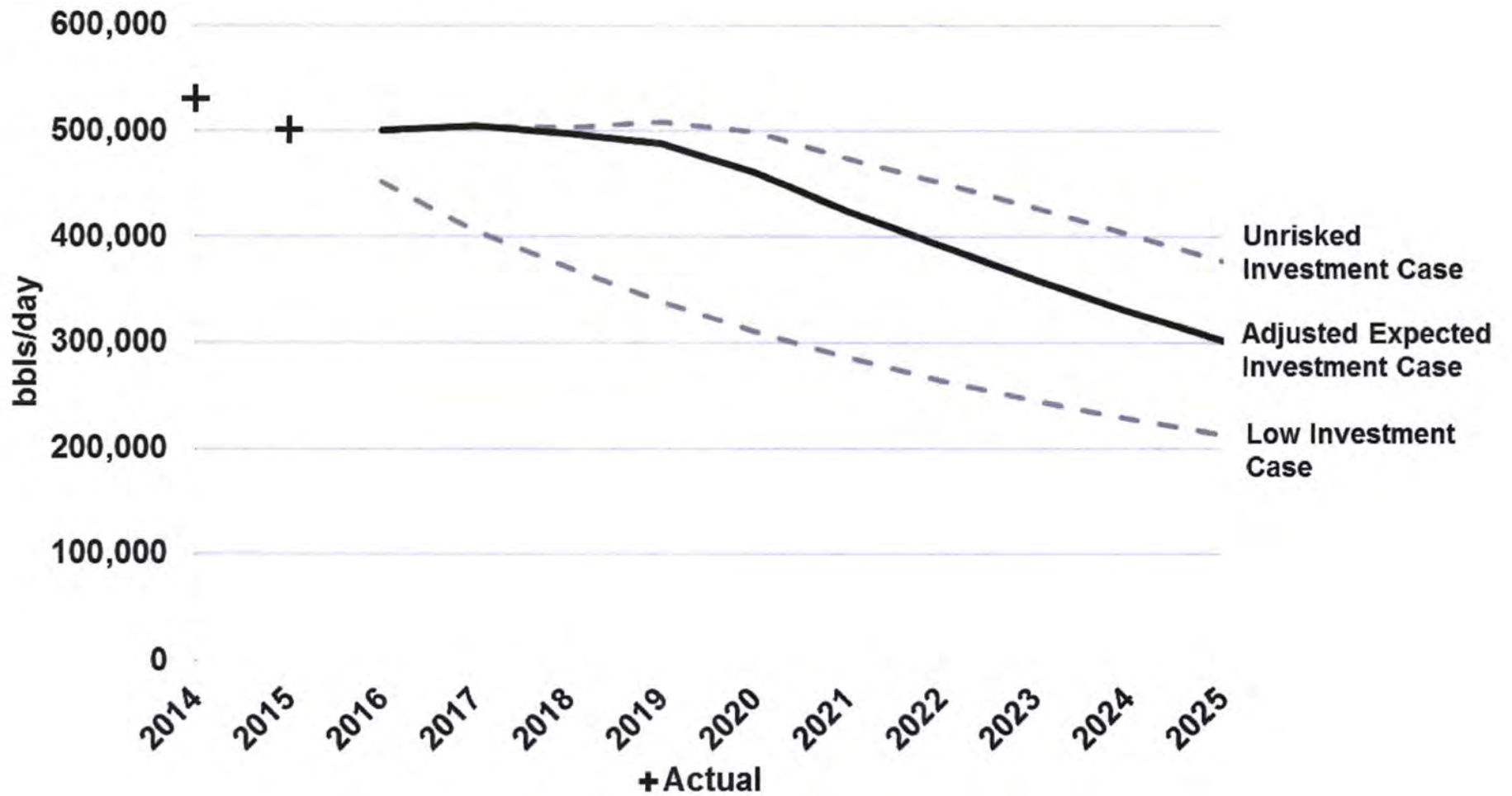
Source: Department of Revenue - Revenue Sources Book Spring 2015 and Fall 2015

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## ANS Oil Production Forecast

- **Volumes from Developed Reserves (Currently Producing):**
  - Oil from wells that are in production and following typical reservoir engineering optimization without major investment.
  - These volumes are from projects already in place and thus remain unadjusted for risk.
- **Volumes from Undeveloped Reserves and additional/accelerated Developed Reserves:**
  - Oil from projects that will add incremental oil to existing fields or will bring new fields into production.
  - Must have senior management approval and be allocated funds in the company's budget.
  - These volumes are risk-adjusted for commercial uncertainty.
- **Volumes from Contingent Resources:**
  - Oil from projects that are likely to occur in the future, but have not met the requirements of the previous category.
  - Oil reserves must be known and recovery is technically possible with current technology.
  - These volumes are more strongly risk-adjusted due to the commercial uncertainty and other risks.
- **DR + UDR + CR = Unrisked Investment Case**

# ANS Production Forecast



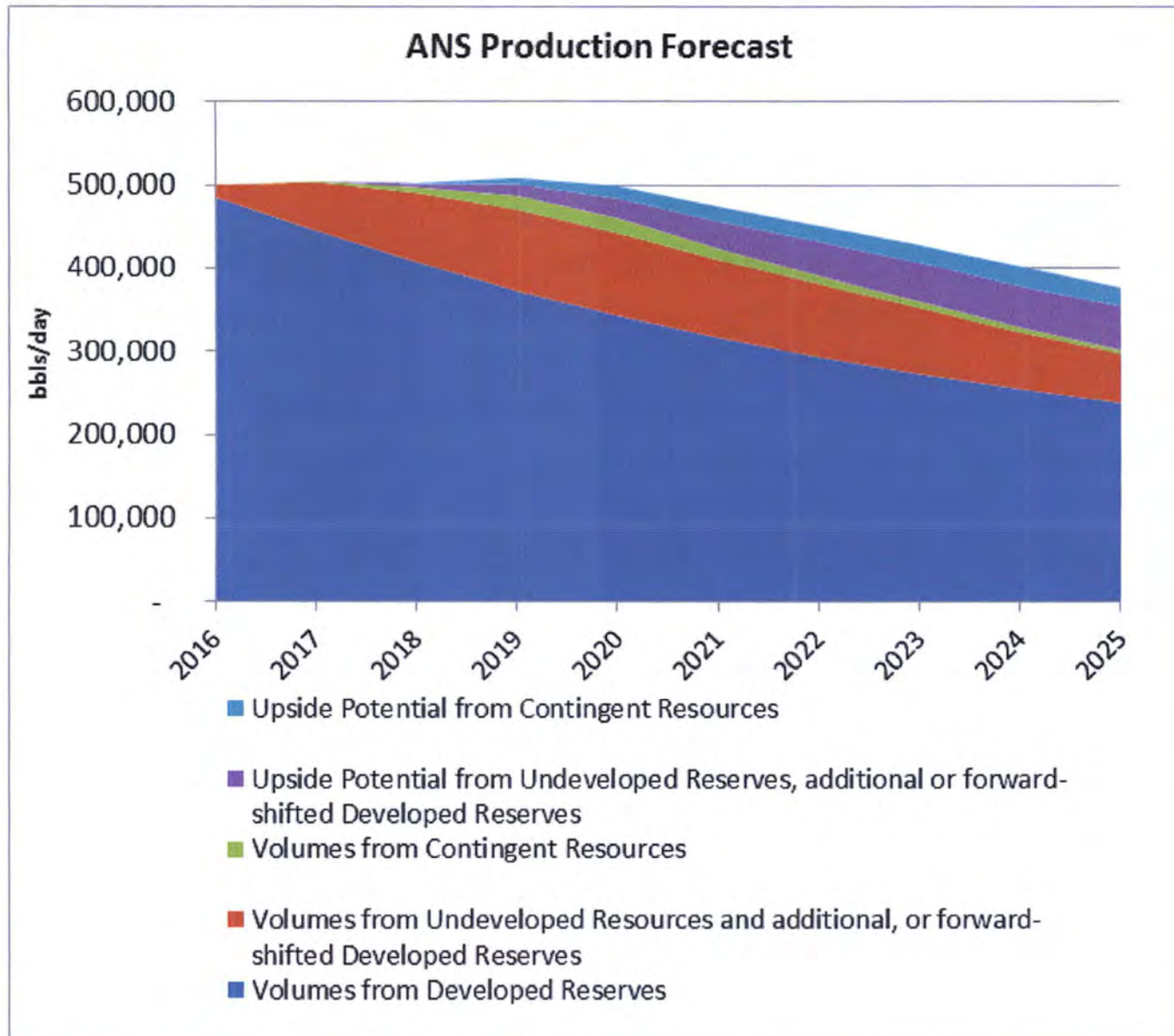
Source: Department of Revenue - Revenue Sources Book Fall 2015

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## Dept. of Revenue Investment Cases

- **Unrisked Investment Case:**
  - This is a technical forecast provided by a DOR consulting petroleum engineering service.
  - It is based upon the expectations and best estimates of oil companies.
  - It includes forecasts from the production from developed, undeveloped oil reserves and contingent resources
- **Adjusted Expected Investment Case:**
  - This is the official revenue forecast.
  - Unrisked investment case adjusted for risks and uncertainties.
  - It is used for forecasting revenue beyond two years.
  - All developed reserves remain un-risked, but less certain projects are weighted over time.
- **Low Investment Case:**
  - This includes forecasts strictly from projects and wells that are already developed. This is risk weighted only at the technical level.
  - If no new projects came to fruition, this is what we would expect the future to look like.

# ANS Production Forecast



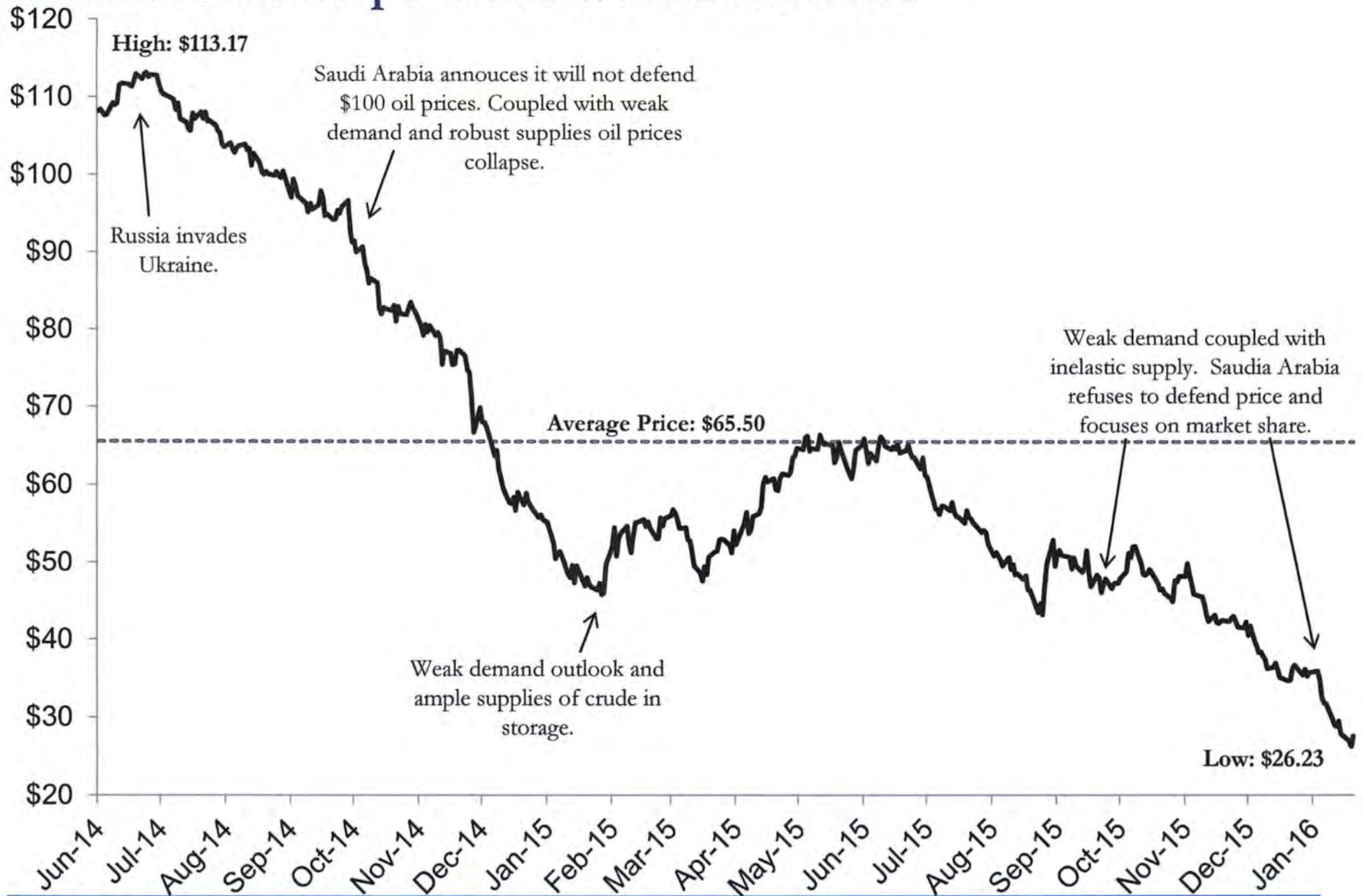
Source: Department of Revenue - Revenue Sources Book Fall 2015

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# Fall 2015 Price Forecast

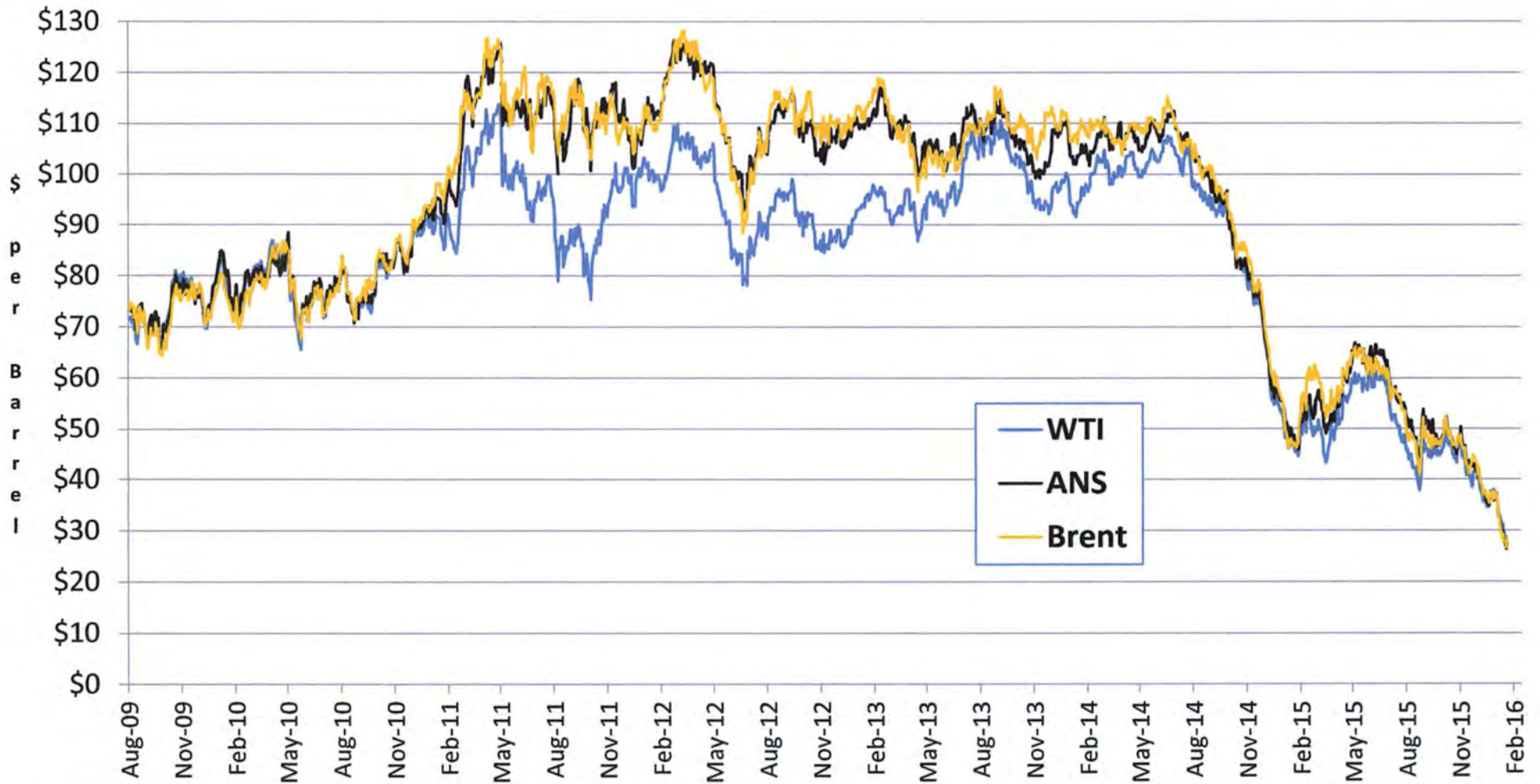


# Alaska North Slope Crude West Coast Price



Source: Department of Revenue – Economic Research

# Alaska North Slope West Coast, West Texas Intermediate and Brent Crude Prices 2009 through 2016



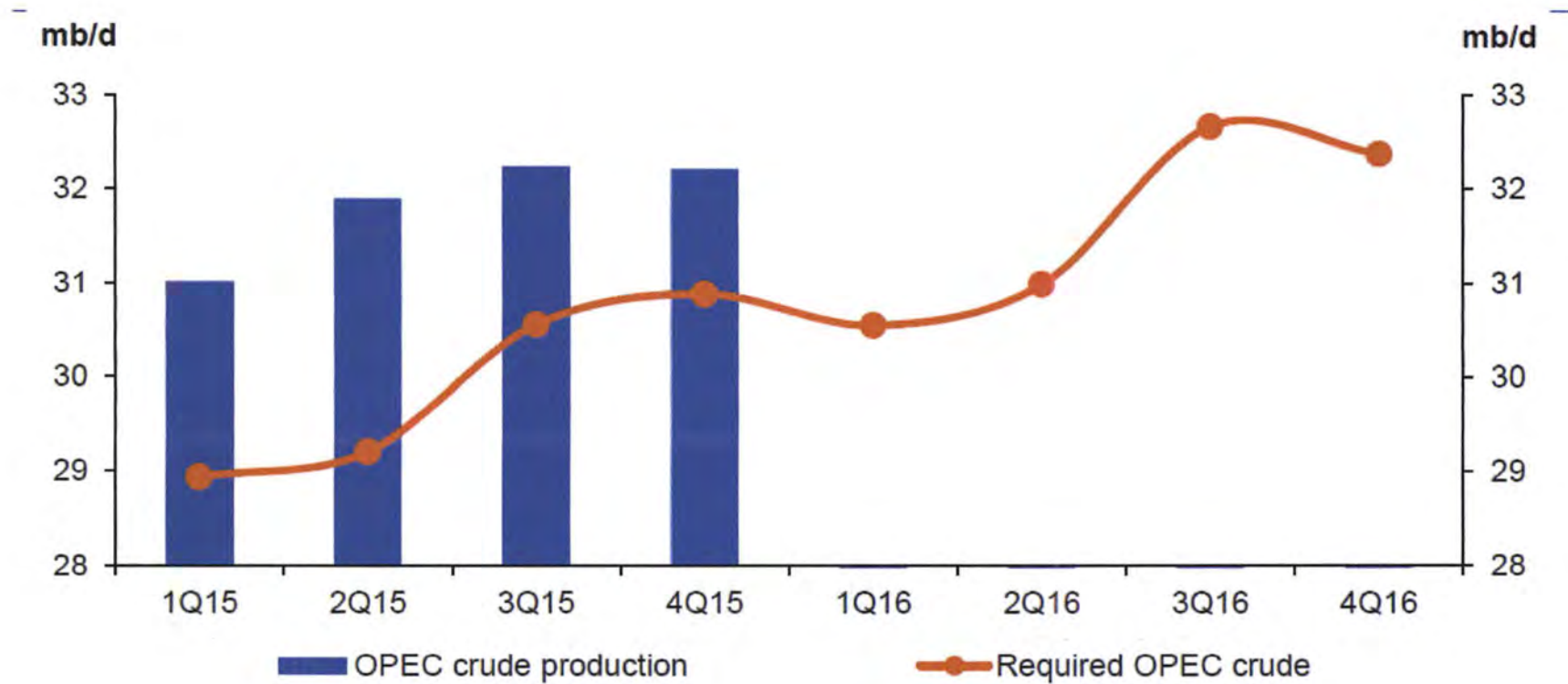
Source: Platts

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## Key Oil Price Drivers

- **Supply & Demand**
  - There are two main factors to monitor
    - Global spare capacity, since it is both a reflection of supply and demand. In other words, the Organization of Petroleum Exporting Countries (OPEC) spare capacity (flipping a switch) is key.
    - Cost of developing new oil supply.
- **Current Events**
  - Weak global demand.
  - Cost of supplying the marginal barrel has decreased dramatically.
  - OPEC (Saudi Arabia) maintains market share and accepts lower prices.
  - Cost of supply has fallen as new sources have been defined and developed.
    - Oil shale is a prime example.

## OPEC's view of supply and demand...

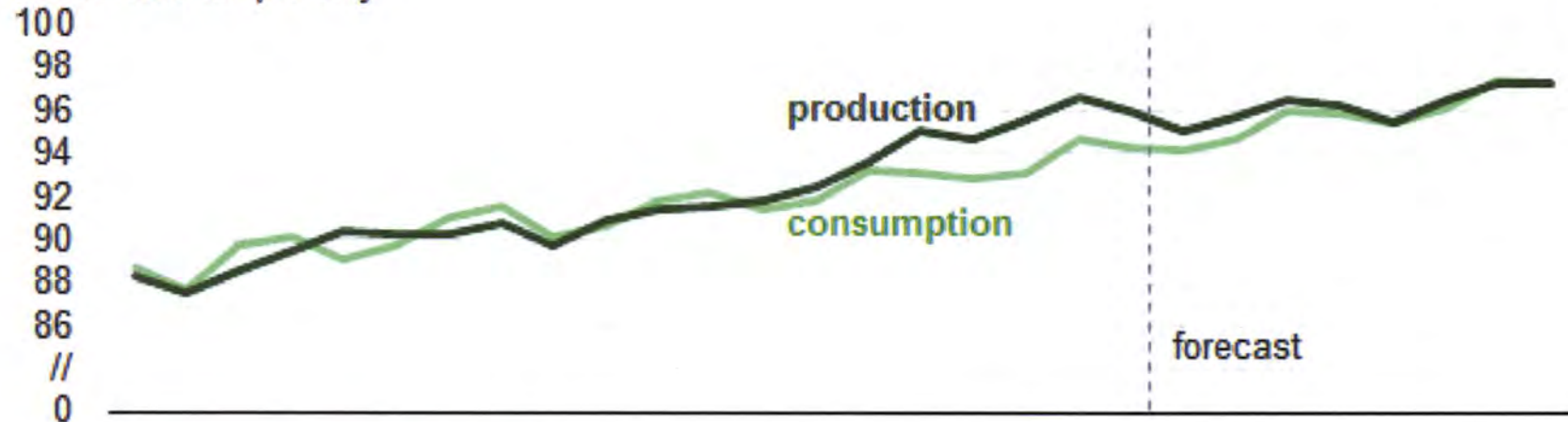


## It's about spare capacity....

Global production and consumption of crude oil and other liquids (2011-17)

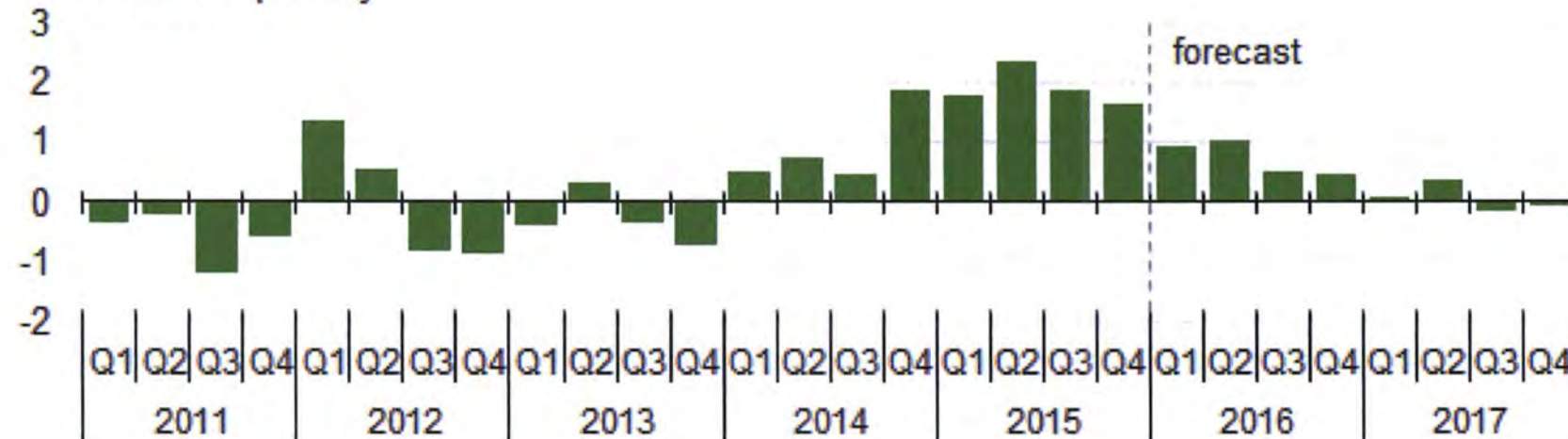


million barrels per day



Implied stock change (2011-17)

million barrels per day



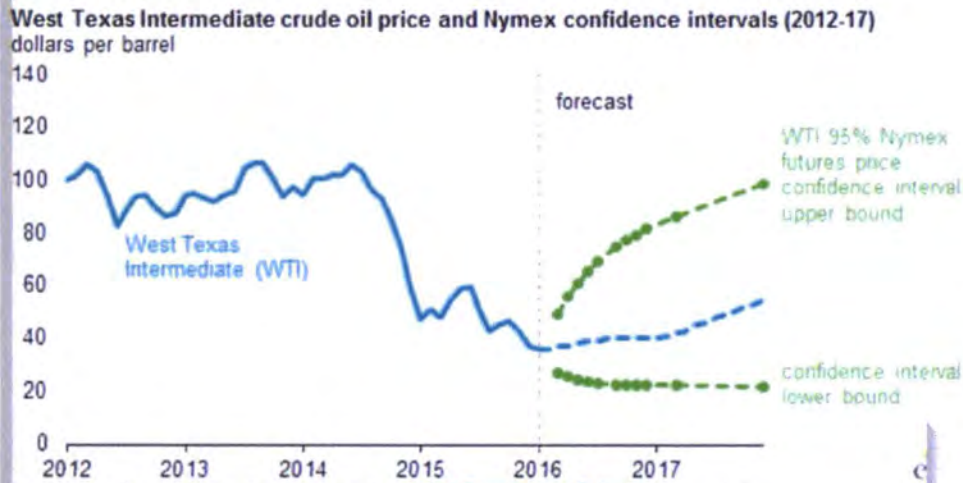
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## Base Price Forecast Methodology

- **Price Forecasting Session**
  - Held a day long oil price forecasting session on October 6, 2015.
  - Speakers provided insight into oil markets, probability and analysis, modeling, and financial aspects of commodity markets.
  - 37 participants from state government, academia and the private sector.
    - DOR, DNR, DOL, OMB, University, Legislative Finance and outside participants.
  - Participants were asked to forecast P10, mean, and P90 real ANS prices out to FY 2025.
    - Real prices were converted to nominal using a 2.25% inflation assumption.
    - Official forecast is based on probabilistic outcomes the price forecast session.

# Consensus view that the distribution is wide

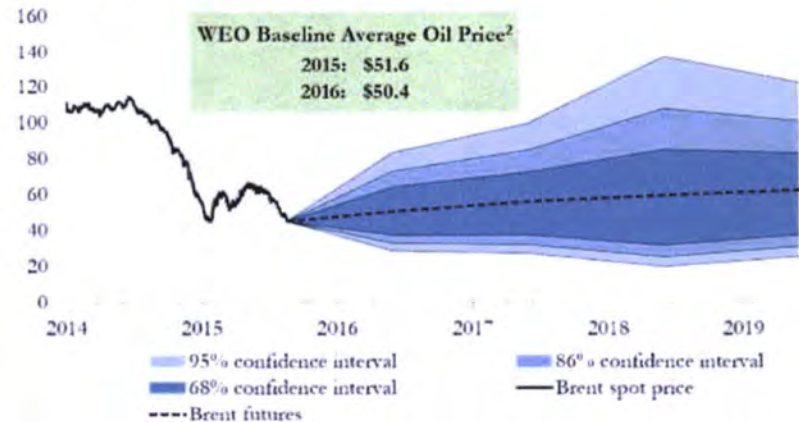
## Crude oil prices to remain relatively low through 2016 and 2017



Source: U.S. Energy Information Administration, *Short-Term Energy Outlook* (January 2015).  
Note: Confidence interval derived from futures options prices for the five trading days ending Jan. 7, 2016. Interval calculated for months with sparse trading in near-the-money options contracts.

<http://www.eia.gov/todayinenergy/detail.cfm?id=24532&src=email>

## Brent Crude Oil Price<sup>1</sup> (U.S. dollars per barrel)



Sources: Bloomberg, and IMF staff calculations.

<sup>1</sup> As of August 20, 2015.

<sup>2</sup> Average of WTI, Brent, and the Dubai Fateh prices.

Source: IMF

## Fall 2015 ANS Revenue Forecast Prices

Percentile	FY 2016				FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
	Q1	Q2	Q3	Q4										
90%		64.99	65.00	70.00	62.77	86.89	96.17	106.88	109.30	122.92	135.40	140.18	143.36	154.51
80%		58.85	60.05	63.68	58.42	76.61	84.80	94.28	96.37	107.34	115.99	119.49	122.80	130.19
70%		54.42	56.17	58.69	55.09	68.89	76.37	84.75	86.73	95.93	101.98	104.69	107.93	113.13
60%		50.76	52.74	54.24	52.21	62.28	69.22	76.53	78.53	86.33	90.36	92.55	95.57	99.35
50%	51.09	47.50	49.50	50.00	49.52	56.24	62.73	68.95	71.05	77.68	80.00	81.80	84.53	87.35
40%		44.45	46.27	45.76	46.89	50.40	56.52	61.59	63.86	69.47	70.28	71.81	74.19	76.39
30%		41.47	42.91	41.30	44.19	44.50	50.31	54.11	56.63	61.34	60.77	62.15	64.05	65.98
20%		38.42	39.18	36.31	41.25	38.18	43.74	46.04	48.95	52.83	50.99	52.33	53.59	55.62
10%		34.99	34.49	29.99	37.64	30.67	36.06	36.33	39.88	43.02	40.00	41.47	41.79	44.59

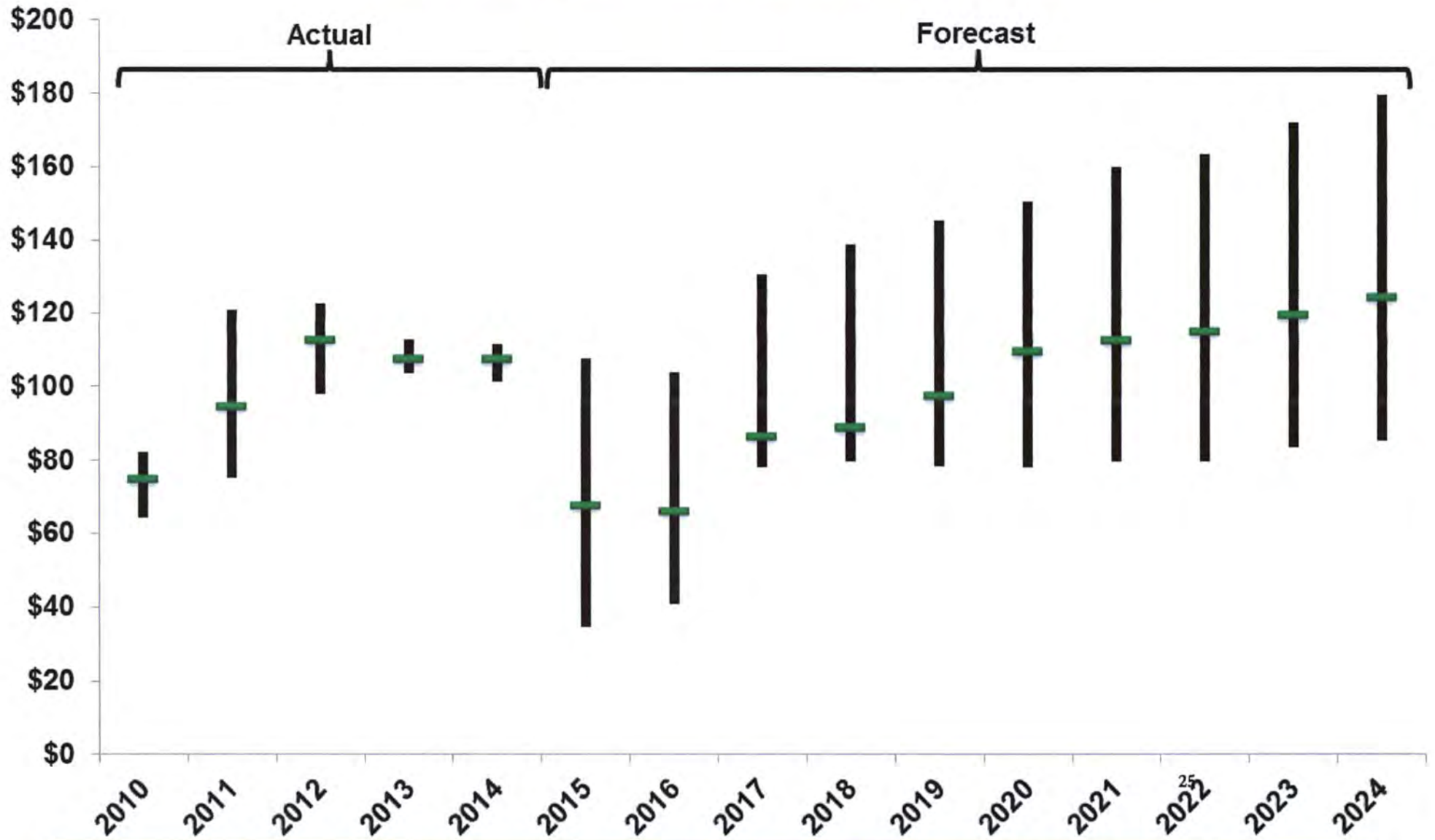
- Official forecast is one value within a range of possible outcomes
- Forecasts for FY 2016 and beyond are from the Fall 2015 price forecast session held on October 6, 2015
- Probabilistic analyses produced the percentile ranges above

## “What if the oil price is...” for the remainder of FY 2016

		ANS Price Sensitivity								
<i>"What if price is..."</i>	\$	60 \$	55 \$	50 \$	45 \$	40 \$	35 \$	30 \$	25 \$	20
7/1/2015	56.20	56.20	56.20	56.20	56.20	56.20	56.20	56.20	56.20	56.20
8/1/2015	48.26	48.26	48.26	48.26	48.26	48.26	48.26	48.26	48.26	48.26
9/1/2015	48.83	48.83	48.83	48.83	48.83	48.83	48.83	48.83	48.83	48.83
10/1/2015	48.20	48.20	48.20	48.20	48.20	48.20	48.20	48.20	48.20	48.20
11/1/2015	44.24	44.24	44.24	44.24	44.24	44.24	44.24	44.24	44.24	44.24
12/1/2015	37.15	37.15	37.15	37.15	37.15	37.15	37.15	37.15	37.15	37.15
1/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00	20.00
2/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00	20.00
3/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00	20.00
4/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00	20.00
5/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00	20.00
6/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00	20.00
<b>Forecast Price</b>	<b>\$ 53.57</b>	<b>\$ 51.07</b>	<b>\$ 48.57</b>	<b>\$ 46.07</b>	<b>\$ 43.57</b>	<b>\$ 41.07</b>	<b>\$ 38.57</b>	<b>\$ 36.07</b>	<b>\$ 33.57</b>	

Source for actuals: Prevailing Values, DOR Tax Division website

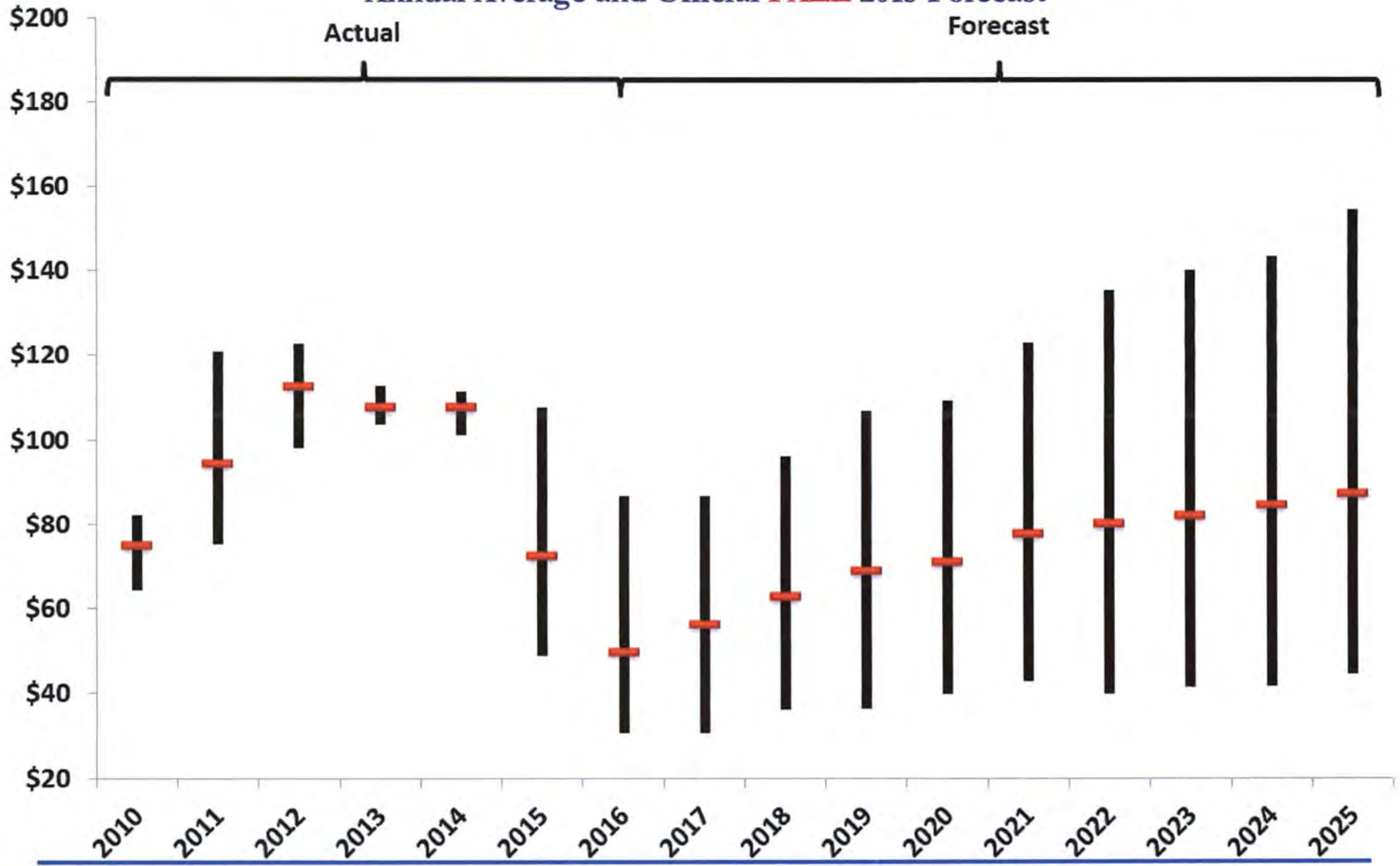
# Historical ANS West Coast FY Oil Price Bands: Annual Average and Official **SPRING** 2015 Forecast



Source: Department of Revenue – Revenue Sources Book Spring 2015

# Historical ANS West Coast FY Oil Price Bands:

Annual Average and Official **FALL** 2015 Forecast



Source: Department of Revenue - Revenue Sources Book Fall 2015

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# Changes from Spring 2015 Forecast



## COMPARISON – SPRING 2015 vs. FALL 2015 FORECASTS

<b>FY 2016</b>	<b>Spring 2015 Forecast</b>	<b>Fall 2015 Forecast</b>	<b>Difference</b>	<b>Change</b>
<b>Oil Price (ANS West Coast per barrel)</b>	\$66.03	\$49.58	-\$16.45	-25%
<b>ANS Oil Production (THSbbls/day)</b>	519.5	500.2	-19.3	-4%
<b>GFUR (\$ millions)</b>	\$2,198.2	\$1,593.0	-\$605	-28%

<b>FY 2017</b>	<b>Spring 2015 Forecast</b>	<b>Fall 2015 Forecast</b>	<b>Difference</b>	<b>Change</b>
<b>Oil Price (ANS West Coast per barrel)</b>	\$86.66	\$56.24	-\$30.42	-35%
<b>ANS Oil Production (THSbbls/day)</b>	535.5	504.9	-30.6	-6%
<b>GFUR (\$ millions)</b>	\$3,179.7	\$1,796.4	-\$1,383	-44%

Source: Department of Revenue - Revenue Sources Book Spring 2015 and Fall 2015

## CONTRIBUTORS OF CHANGE IN FY2016 REVENUE FORECAST

Component	Spring 2015 Forecast	Fall 2015 Forecast	Difference
ANS Production (THSbbls/day)	519.5	500.2	(19.3)
ANS Price	\$66.03	\$49.58	(\$16.45)
ANS Deductible Lease Expenditures (\$ millions)	\$6,788	\$5,782	(\$1,005)
Transportation Costs (\$/barrel)	\$9.28	\$10.56	\$1.28

**Average Production Tax Value per barrel is reduced by \$13.**

**Simplified calculation, does not represent any specific company value.**

**Assumes 12.5% royalty.**

## CONTRIBUTORS OF CHANGE IN FY2017 REVENUE FORECAST

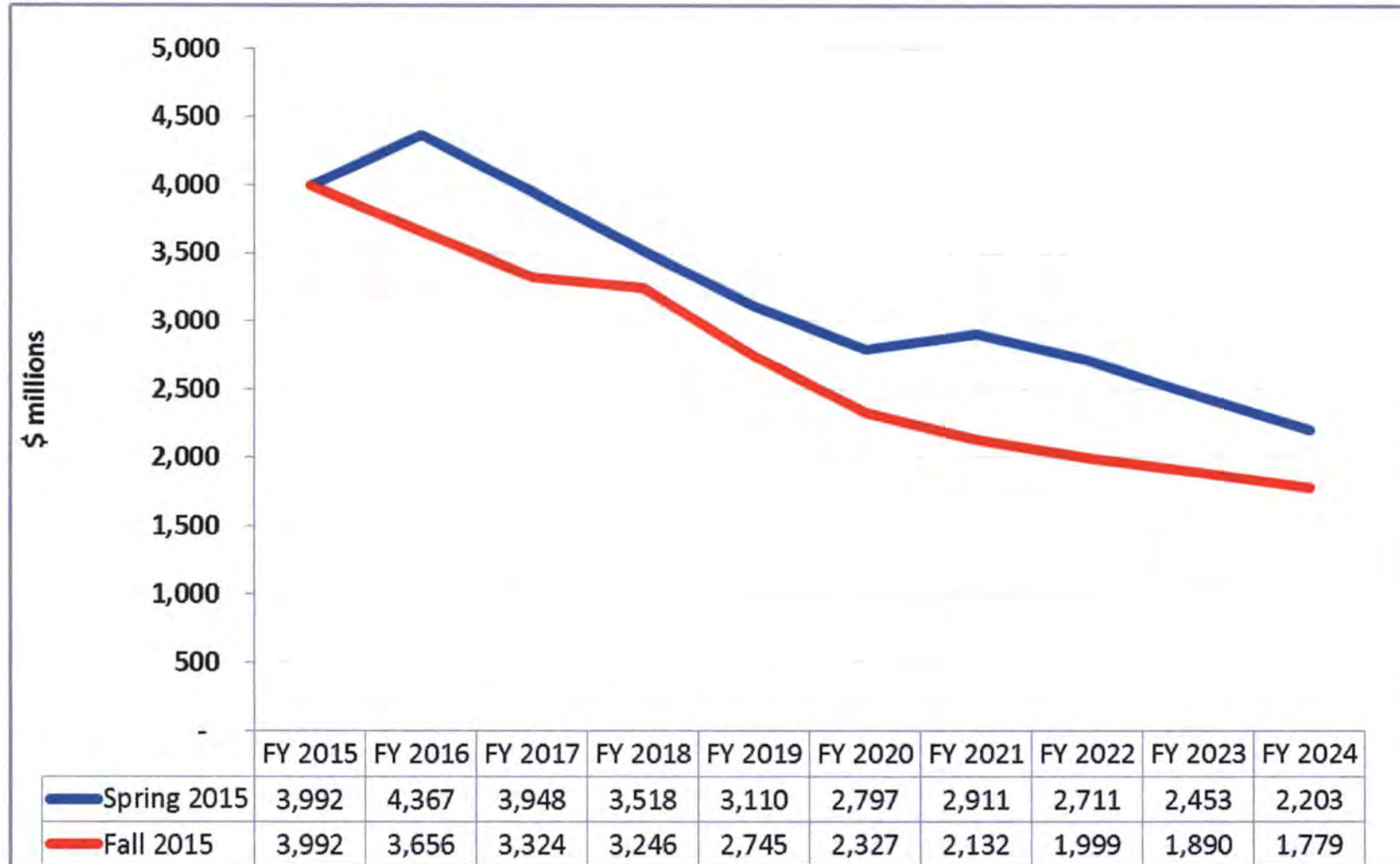
Component	Spring 2015 Forecast	Fall 2015 Forecast	Difference
ANS Production (THSbbls/day)	535.5	504.9	(30.6)
ANS Price	\$86.66	\$56.24	(\$30.42)
ANS Deductible Lease Expenditures (\$ millions)	\$6,847	\$5,828	(\$1,020)
Transportation Costs (\$/barrel)	\$9.82	11.16	1.34

Average Production Tax Value per barrel is reduced by \$28.

Simplified calculation, does not represent any specific company value.

Assumes 12.5% royalty.

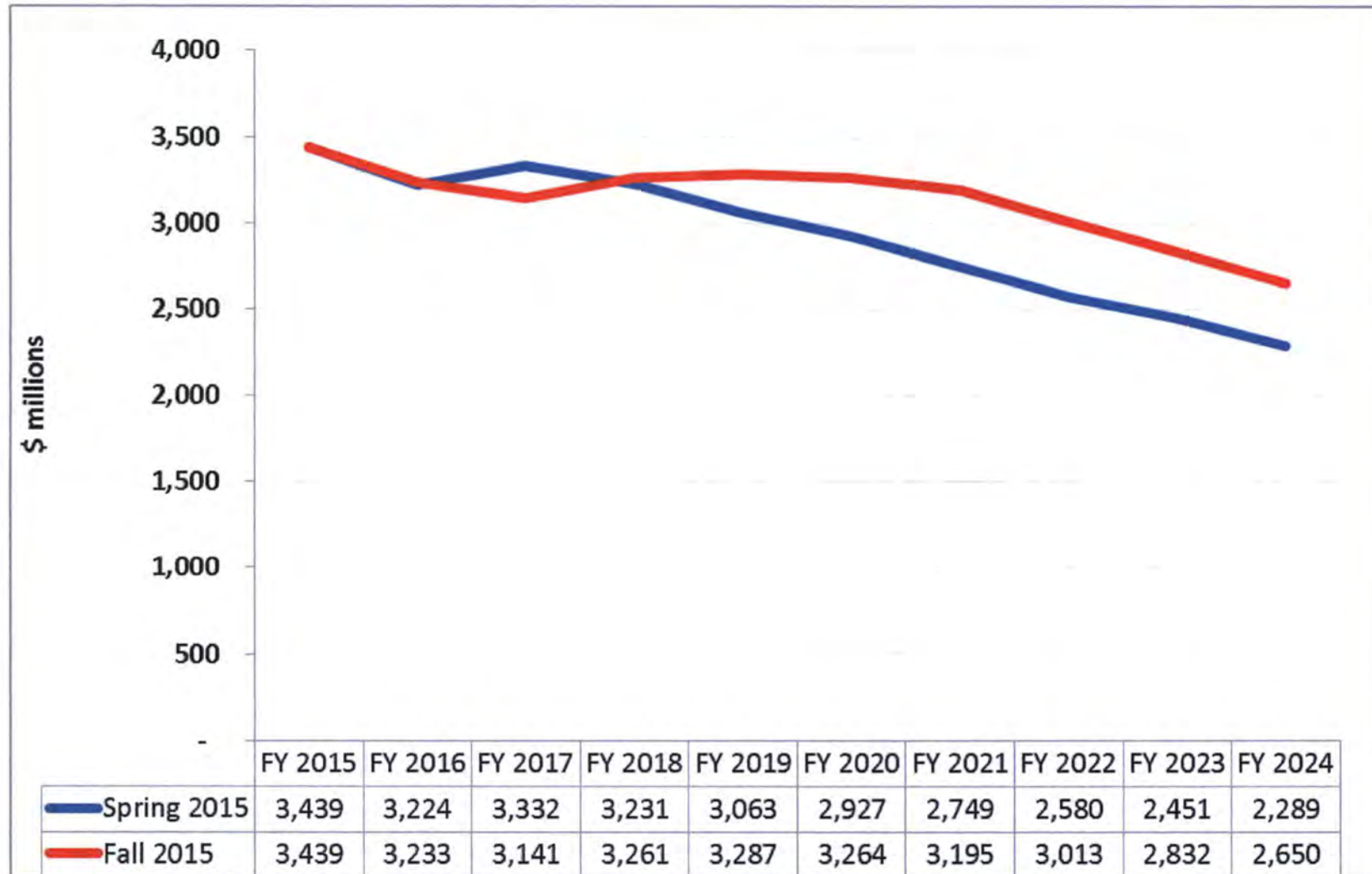
# NORTH SLOPE CAPITAL EXPENDITURE FORECAST CHANGE



Note: These estimates include lease expenditures by companies that are not expected to have a tax liability.

Source: Department of Revenue - Revenue Sources Book Spring 2015 forecast and Fall 2015 forecast

# NORTH SLOPE OPERATING EXPENDITURE FORECAST CHANGE



Note: These estimates include lease expenditures by companies that are not expected to have a tax liability.

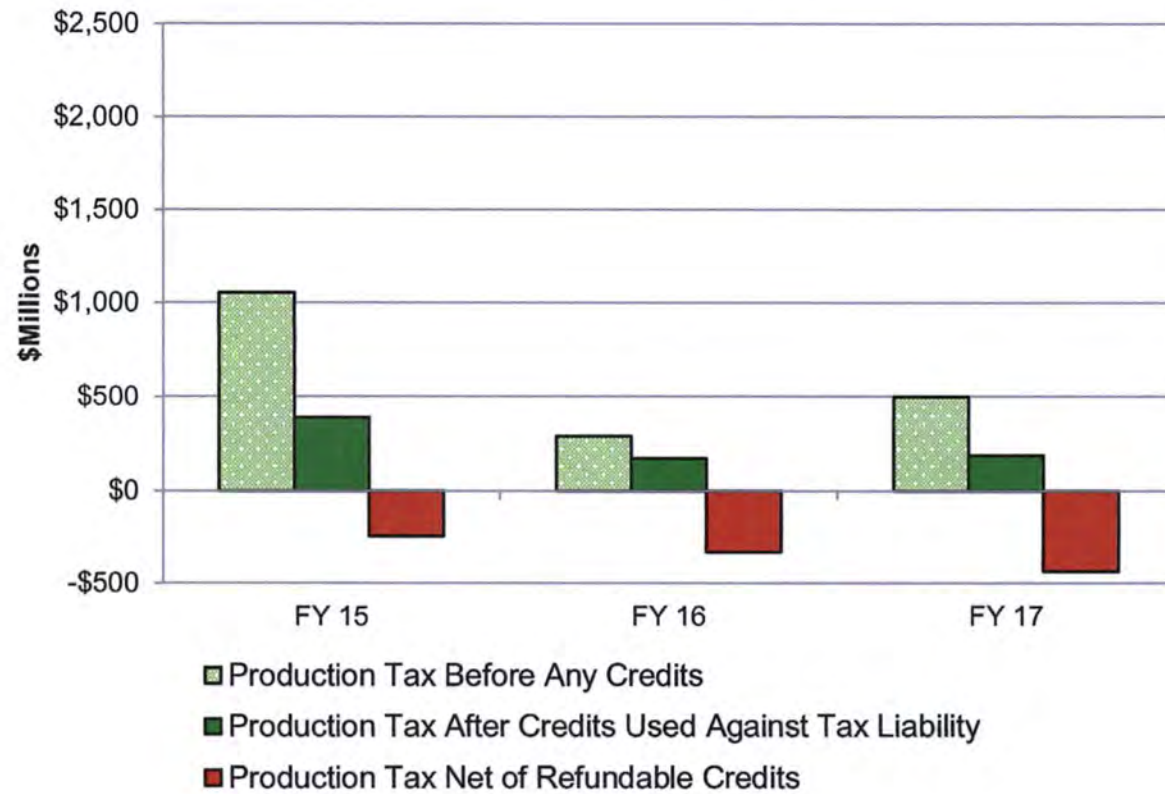
Source: Department of Revenue - Revenue Sources Book Spring 2015 forecast and Fall 2015 forecast

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# Fall 2015 Credits Forecast

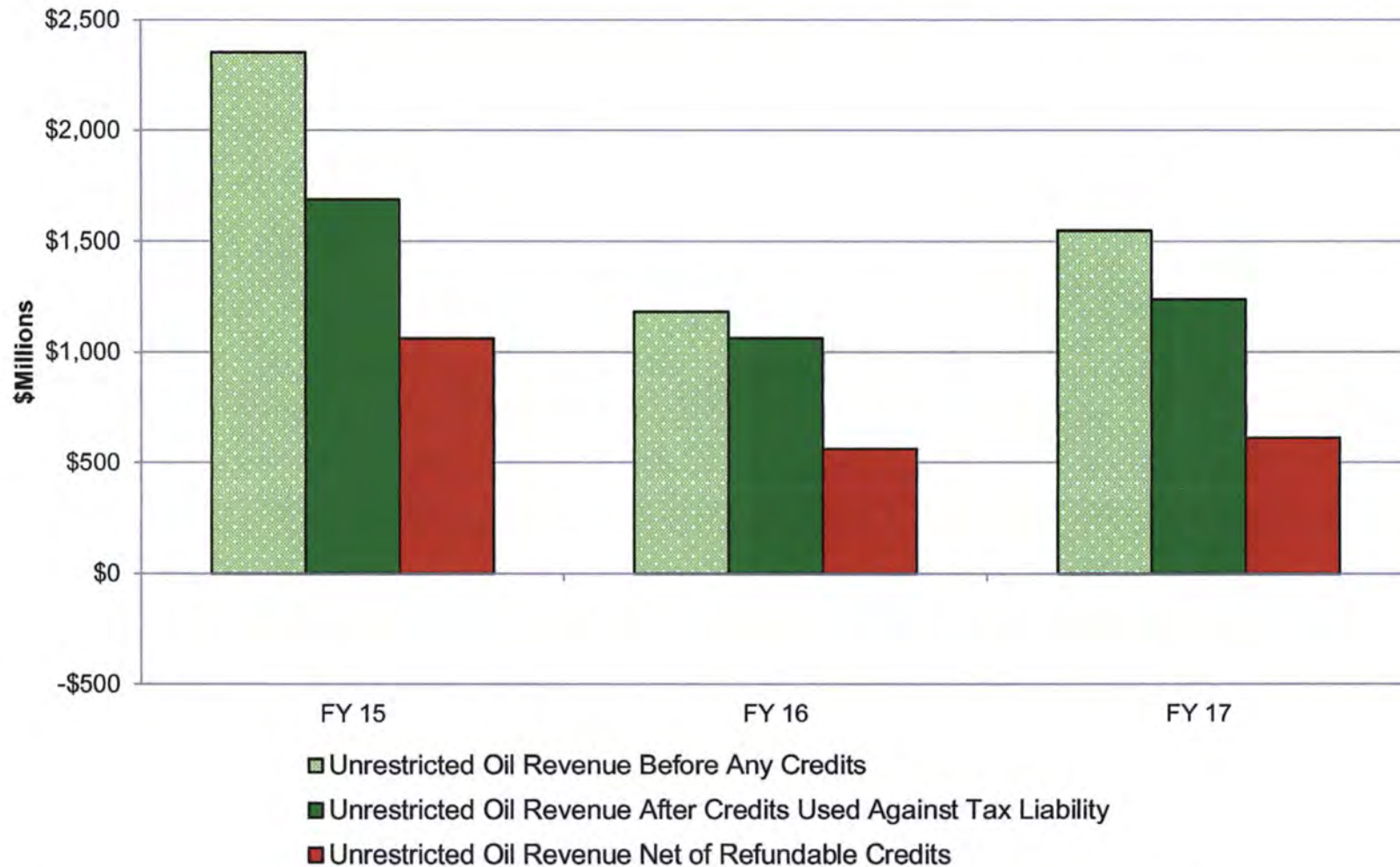


## Net Tax Credits vs. Production Tax



Source: Department of Revenue - Revenue Sources Book Fall 2015

## Unrestricted Oil Revenue\* and Tax Credits



\*This graph shows net tax credits versus unrestricted oil revenue, which includes the petroleum property tax, petroleum CIT, production tax, oil and gas hazardous release, oil and gas conservation, rents, and royalties.

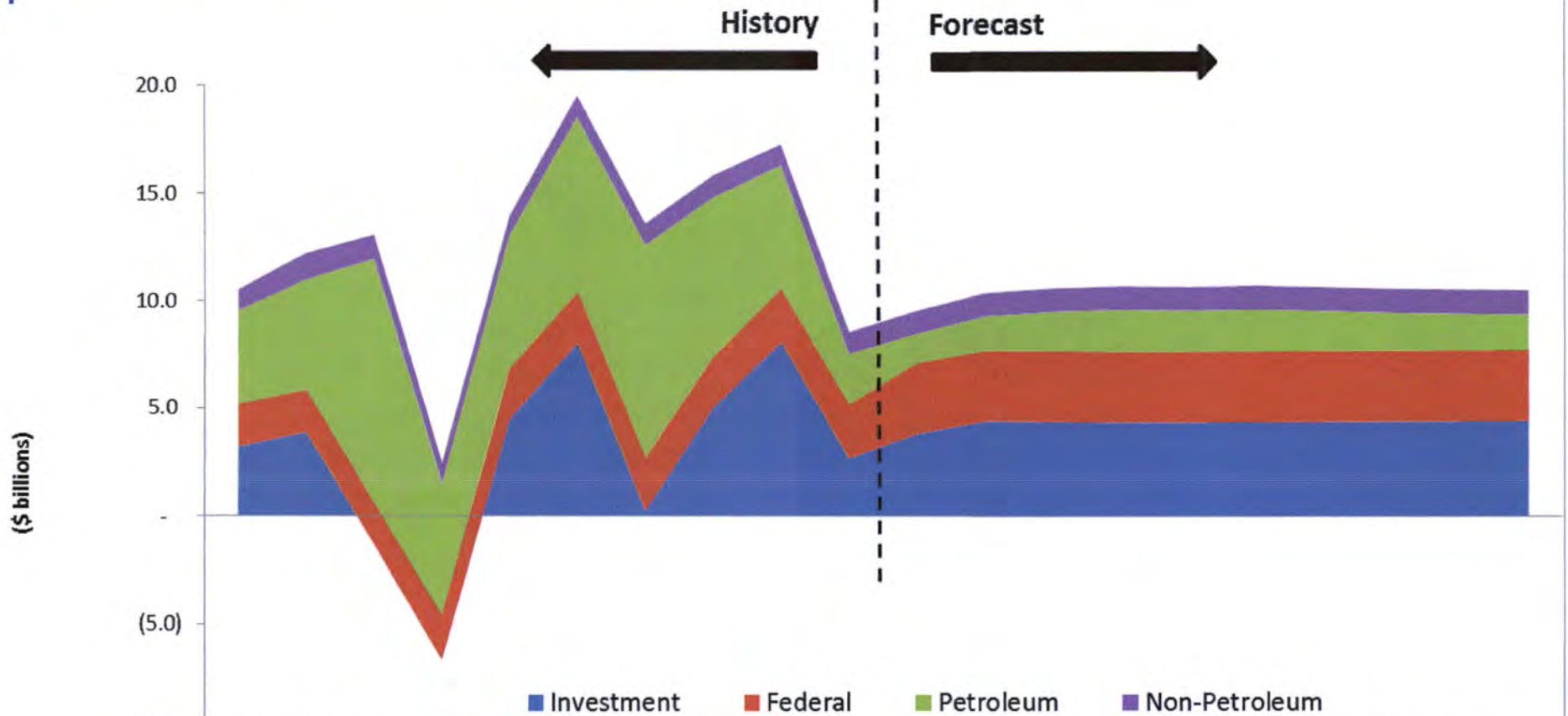
Source : Department of Revenue - Revenue Sources Book Fall 2015

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# Total Revenue Forecast



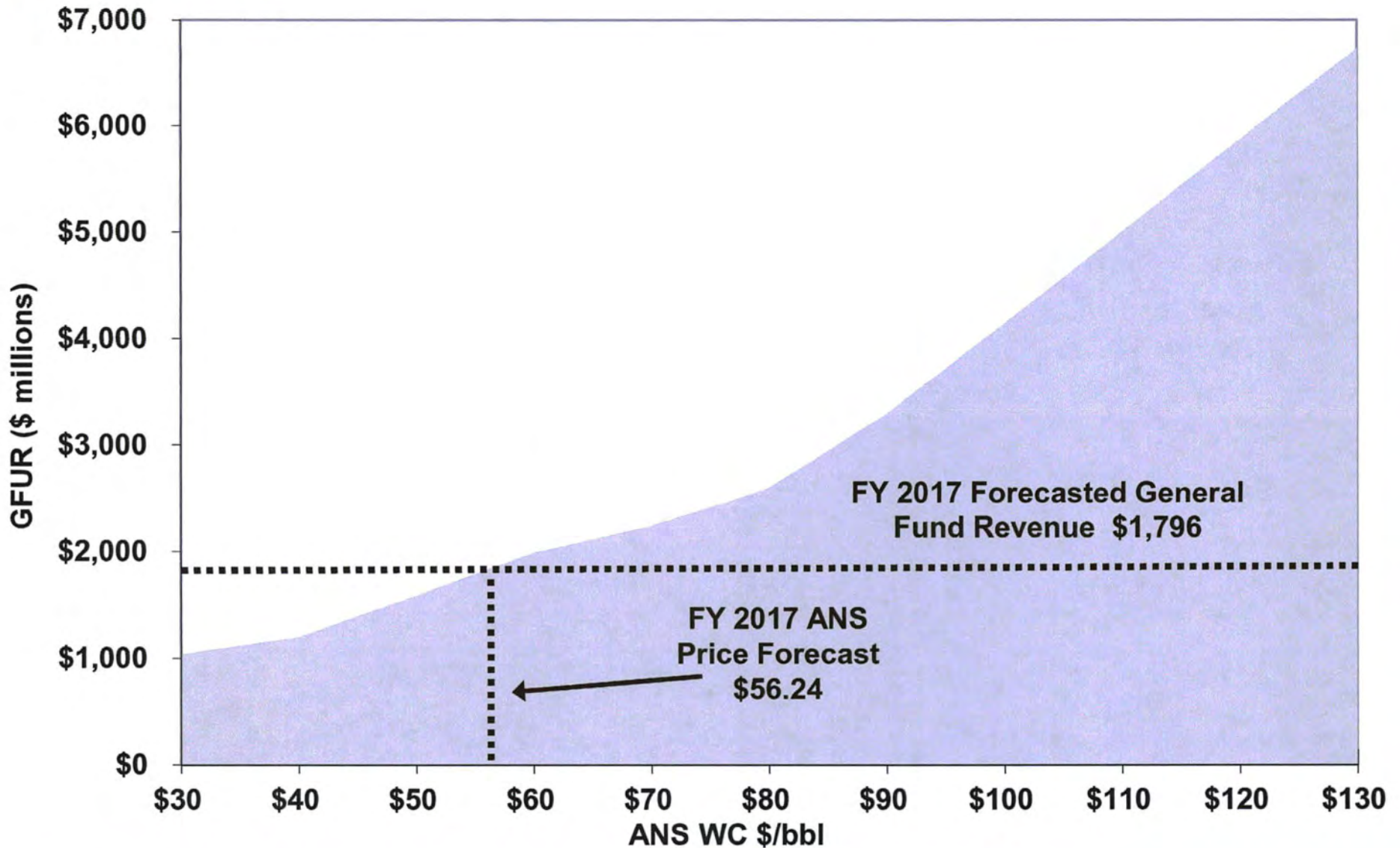
# Fall 2015 Total Revenue Forecast



	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
■ Non-Petroleum	1.0	1.2	1.1	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
■ Petroleum	4.4	5.1	11.3	6.1	6.2	8.1	9.9	7.4	5.7	2.4	1.4	1.6	1.8	2.0	1.9	1.9	1.9	1.8	1.7	1.6
■ Federal	2.0	2.0	1.9	2.1	2.4	2.4	2.5	2.4	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
■ Investment	3.2	3.9	-1.3	-6.6	4.5	8.0	0.3	5.0	8.1	2.7	3.8	4.4	4.4	4.3	4.3	4.3	4.4	4.4	4.4	4.4

Source: Department of Revenue –Fall 2015 forecast

# FY 2017 General Fund Unrestricted Revenue, with Price Sensitivity



Source: Department of Revenue - preliminary Fall 2015 forecast

## Total Revenue Forecast – FY 2015 & 2016

Revenue Type	(\$ millions)		
	Actual	Forecast	
	FY 2015	FY 2016	FY 2017
<b>Unrestricted General Fund</b>			
Oil Revenue	1,687.9	1,061.5	1,237.3
Non-Oil Revenue*	521.5	510.1	521.0
Investment Revenue	47.9	21.3	38.1
<b>Total Unrestricted Revenue</b>	<b>2,257.3</b>	<b>1,593.0</b>	<b>1,796.4</b>
<b>Designated General Fund</b>			
Non-Oil Revenue*	313.3	348.2	338.7
Investment Revenue	17.7	6.8	37.8
<b>Subtotal</b>	<b>331.0</b>	<b>355.0</b>	<b>376.5</b>
<b>Other Restricted Revenue</b>			
Oil Revenue	667.3	307.7	351.8
Non-Oil Revenue*	183.9	219.7	220.5
Investment Revenue	2,585.7	3,773.4	4,309.0
<b>Subtotal</b>	<b>3,436.9</b>	<b>4,300.8</b>	<b>4,881.3</b>
<b>Federal Revenue</b>			
Oil Revenue	3.2	4.3	4.3
Federal Receipts	2,512.7	3,290.2	3,290.2
<b>Subtotal</b>	<b>2,515.9</b>	<b>3,294.5</b>	<b>3,294.5</b>
<b>Total State Revenue</b>	<b>8,541.1</b>	<b>9,543.3</b>	<b>10,348.7</b>

\*Except Federal and Investment

Source: Department of Revenue - Revenue Sources Book Fall 2015

# A New View of Revenue

Revenue Type	(\$ millions)		
	Actual	Forecast	
	FY 2015	FY 2016	FY 2017
<b>Petroleum Revenue</b>			
Unrestricted General Fund	1,687.9	1,061.5	1,237.3
Royalties to Alaska Permanent Fund beyond 25% dedication <sup>(2)</sup>	111.3	48.4	53.9
Tax and Royalty Settlements to CBRF	149.0	20.0	20.0
<b>Subtotal Petroleum Revenues</b>	<b>1,948.2</b>	<b>1,130.0</b>	<b>1,311.2</b>
<b>Non-Petroleum Revenue</b>			
Unrestricted General Fund	521.5	510.1	521.0
Designated General Fund	313.3	348.2	338.7
Royalties to Alaska Permanent Fund beyond 25% dedication <sup>(2)</sup>	0.2	1.1	1.1
Tax and Royalty Settlements to CBRF	0.1	0.1	0.1
<b>Subtotal Non-Petroleum Revenues</b>	<b>835.1</b>	<b>859.5</b>	<b>860.9</b>
<b>Investment Revenue</b>			
Unrestricted General Fund	47.9	21.3	38.1
Designated General Fund	17.7	6.8	37.8
Constitutional Budget Reserve Fund	197.7	65.5	95.8
Alaska Permanent Fund - Realized Earnings	2,931.4	3,354.4	3,403.5
<b>Subtotal Investment Revenues</b>	<b>3,194.7</b>	<b>3,448.0</b>	<b>3,575.2</b>
<b>Total Revenue Subject to Appropriation</b>	<b>5,977.9</b>	<b>5,437.5</b>	<b>5,747.3</b>

(1) This figure presents only the largest known categories of current year funds subject to appropriation. A comprehensive review of all accounts in the state accounting system would likely reveal additional revenues subject to appropriation beyond those identified here.

(2) Estimated based on deposit to Permanent Fund minus 25% of total royalties.

## General Fund Unrestricted Revenues Non-petroleum

Revenue Type	Actual		Forecast			
	2015	Percent	2016	Percent	2017	Percent
<b>Taxes</b>						
Non-petroleum Corporate Income	\$136	23.9%	\$105	19.7%	\$105	18.8%
Mining License Tax	\$39	6.8%	\$24	4.6%	\$21	3.8%
Insurance Premium	\$59	10.4%	\$59	11.1%	\$58	10.4%
Tobacco	\$41	7.0%	\$42	8.0%	\$42	7.5%
Motor Fuel	\$42	7.3%	\$51	9.6%	\$51	9.1%
Other Taxes	<u>\$65</u>	11.4%	<u>\$65</u>	12.3%	<u>\$75</u>	13.5%
<b>Subtotal Taxes</b>	<b>\$381</b>	<b>66.9%</b>	<b>\$347</b>	<b>65.3%</b>	<b>\$354</b>	<b>63.2%</b>
<b>Investments</b>	<b>\$48</b>	<b>8.4%</b>	<b>\$21</b>	<b>4.0%</b>	<b>\$38</b>	<b>6.8%</b>
<b>Other</b>	<b>\$141</b>	<b>24.7%</b>	<b>\$163</b>	<b>30.7%</b>	<b>\$168</b>	<b>30.0%</b>
<b>Total Non-Oil</b>	<b>\$569</b>	<b>100.0%</b>	<b>\$531</b>	<b>100.0%</b>	<b>\$559</b>	<b>100.0%</b>

Source: Department of Revenue - Revenue Sources Book Fall 2015

# THANK YOU

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# RatingsDirect®

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## Summary:

# Alaska; Appropriations; General Obligation; Moral Obligation

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Rationale

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## Summary:

# Alaska; Appropriations; General Obligation; Moral Obligation

## Credit Profile

### Alaska GO

*Unenhanced Rating*

AA+(SPUR)/Negative

Downgraded

### Alaska Mun Bnd Bank, Alaska

Alaska

### Alaska Mun Bnd Bank GO

*Unenhanced Rating*

AA(SPUR)/Negative

Downgraded

## Rationale

Standard & Poor's Ratings Services lowered its rating to 'AA+' from 'AAA' on Alaska's general obligation (GO) debt, and its ratings to 'AA' from 'AA+' on the state's appropriation-backed debt. We also lowered our rating to 'A+' from 'AA' on some bonds that were issued by the Alaska Energy Authority and are backed by a moral obligation pledge from the state. The outlook on all debt ratings is negative.

The rating actions reflect our view of the state's credit quality as oil prices have continued to slide, falling below forecasts from earlier this year, causing an already large structural gulf between unrestricted general fund revenues and expenditures to widen further. The negative outlook continues to reflect our opinion that if lawmakers do not enact significant fiscal reforms to reduce the state's fiscal imbalance during its 2016 legislative session, Alaska's downward rating transition will likely persist. Furthermore, it's possible that the downward rating migration could accelerate if lawmakers continue to fail to act as the state's budget reserves (not including the permanent fund) approach depletion. On the other hand, the state's large reservoir of financial assets provides it with options that we believe have the potential to stabilize its credit quality. Governor Bill Walker's fiscal 2017 budget proposal illustrates one approach to potentially reducing the effect of oil price volatility on state finances. However, the politics of enacting what amounts to an austerity-based overhaul of state finances render its prospects uncertain. And even this would leave the state with a structural gap, estimated at \$427 million, or almost 9% of proposed appropriations in fiscal 2017 (although the shortfall would shrink to just \$28.2 million in fiscal 2018 under the governor's plan). But until its budgetary trajectory is brought closer to alignment, the state's credit quality is under negative pressure, in our view. The state's credit quality nevertheless continues to benefit from several strong features:

- Budget reserves that, despite not representing a permanent solution to the state's unrestricted general fund deficit problem, remain large, equal to 312% of annual appropriations (as of Aug. 31, 2015);
- Potential to resolve much of the general fund gap by overhauling the flow and customary treatment of various legally unrestricted state revenues; and
- Moderate debt burden and closed defined-benefit retirement system that should benefit actuarially from a recent

large asset infusion.

Much about Alaska's recent economic and fiscal experience is summed up by collapsing oil prices on the global markets and declining production on Alaska's North Slope. Reflecting its linkage to the commodity markets, Alaska's economy has begun to contract and is out of step with the U.S. economy, which continues to expand. For much of the past 40 years, taxes and royalties on oil production have been sufficient to pay for a majority of the state's general fund expenses. For instance, in fiscal 2012 when Alaska North Slope (ANS) west coast spot prices averaged \$112.65 per barrel, the state brought in nearly \$9.5 billion in total unrestricted revenue. But by the spring of 2015, the state's ANS oil price forecast -- \$66.03 per barrel in fiscal 2016 -- was projected to produce just \$2.2 billion in unrestricted general fund revenue. Consequently, despite having cut spending by 16% relative to the prior year, the state's fiscal 2016 budgeted appropriations still exceeded anticipated revenues by \$2.7 billion, a shortfall equal to 54% of budgeted expenditures. Lawmakers covered the gap in the budget by authorizing a transfer from the state's Constitutional Budget Reserve (CBR), albeit only after first getting hung up in the negotiating process.

Even this would prove optimistic, however, and as the year progressed, the slump in oil prices persisted. In its fall revenue forecast update, the state revised its fiscal 2016 ANS average spot price forecast lower, to \$49.58 per barrel, translating to a downward revenue adjustment of about \$600 million. With just \$1.6 billion in unrestricted revenue for the year, the state's updated fiscal gap has ballooned to an estimated \$3.55 billion. More recent spot price trends have fallen even further, to below \$40 per barrel as of mid-December, implying an even larger fiscal gap.

Alaska's still sizable budget reserves enable it to endure large operating deficits for several years, but ultimately the fiscal trajectory sketched out above is unsustainable. Apart from the effect of falling commodity prices, declining oil production is putting a strain on state finances. ANS oil production peaked in 1988 at 2 million barrels per day, but has been in gradual decline since. The state anticipates 504,900 barrels of production in fiscal 2017, falling to less than 400,000 barrels per day by 2022. Following a months-long campaign to highlight these facts, Governor Bill Walker put forward a plan to overhaul, or "re-plumb," state finances as part of his fiscal 2017 budget proposal.

### **Governor's proposal to reform state finances**

The main thrust of the governor's financial reform proposal involves Alaska's transitioning away from relying on volatile oil revenues to fund state government. Under the governor's plan, Alaska would instead finance most of its general fund expenditures from investment earnings on its asset holdings, in a variant of what state officials refer to as the sovereign wealth fund model. The state estimates that, in order to sustainably support both general fund and the permanent fund dividend program at present levels, roughly \$100 billion in total assets is necessary. However, the value of Alaska's combined assets -- prodigious as they are -- fall short of this, at about \$56 billion. The governor's proposal represents, therefore, a partial sovereign wealth fund model, supplemented by several other more conventional fiscal reforms that result in additional revenue and lower spending.

In our view, the governor's various reform proposals fall into one of the following three categories:

- 1. Adopt a partial sovereign wealth fund model highlighted by two fundamental changes to the design of Alaska's finances:
  - --a. Redirect all oil production tax revenue and 50% of oil royalty revenue away from the general fund to the state's permanent fund earnings reserve. The oil-related revenues make up \$946 million of \$1.8 billion in total projected

unrestricted revenue for fiscal 2017. The remaining \$851 million in nonpetroleum related unrestricted revenues would continue flowing into the general fund as it does now;

- –b. Establish an annual draw from the permanent fund earnings reserve (PFER) to the general fund, used to pay for a majority of governmental operations. The draw amount (proposed at \$3.2 billion for fiscal 2017) would be set according to formula and designed to preserve the real value of Alaska's invested assets.
- 2. Implement an additional \$114 million (2.8%) in cuts to state agency operations following \$400 million in reductions in fiscal 2016. Additional future spending reductions would come from the governor's proposal to transform its oil and gas tax credit program into a loan program intended to spur development activity while lowering expenses.
- 3. Generate additional tax revenue from a new personal income tax as well as increases to the state's mining, fishing, motor vehicle, alcohol, and tobacco taxes. New revenue from these changes would sum to a projected \$350 million in fiscal 2017 but up to \$460 million in future fiscal years once annualized.

### **Governor's proposal would link permanent fund dividends to Alaska's natural resources**

Central to the governor's reform proposal is the capacity of the state's financial assets to sustainably support an annual transfer of investment earnings to the state's general fund. Traditionally the state has used half of the investment earnings from the Alaska permanent fund to pay an annual dividend to state residents. As part of repurposing these revenues, the governor has recommended changing the method for funding the annual dividend program, tying it to the state's receipt of oil royalties rather than to investment returns. This adjustment -- which is integral to the sovereign wealth fund model -- would reduce the cost of the dividend program to about \$700 million in fiscal 2017 from \$1.4 billion in fiscal 2016. While there is a philosophical consistency to the governor's approach in that the dividend program was meant to recognize Alaskans as resident-owners of its natural resources more than beneficiaries of its investment gains, the bottom-line result is a smaller dividend check.

### **Assessing the financial reform proposal from a credit perspective**

The governor's proposal illustrates how it's possible that Alaska's fiscal flexibility could extend well beyond that which is provided by its traditional definition of unrestricted general fund revenue. By redirecting oil-related revenue to its PFER, future windfall-like revenues from oil price spikes would be retained in the permanent fund, allowing the state's asset base to grow. Conversely, when oil prices fall to low levels, the resulting decline in oil-related revenue would be absorbed by the state's permanent fund rather than its general fund. Insofar as the sovereign wealth fund model would transfer the volatility of the oil-related revenue away from the general fund to the state's permanent fund, it could have a stabilizing effect on the state's budget performance. It could help lawmakers be less inclined to engage in yo-yo budgeting. We have observed that lawmakers in Alaska have a history of allowing appropriations to swell during years when oil prices are high, only to be forced to make steep cutbacks when they fall.

Stabilizing the state budget in the manner proposed by the governor involves a wholesale redesign of the state's financial architecture, however. Not surprisingly, some of the individual components of the proposal have already been met with resistance by some members of the legislature and other stakeholders. And if the politics of enacting a fiscal overhaul prove too politically difficult, resulting in inaction this year, the state's options will narrow. On a combined basis, Alaska's various budget reserves currently total about \$15.7 billion (PFER, CBR, and statutory budget reserve). While reserves at that level remain comparatively strong, it's unlikely they can be sustained, considering the state is operating with a \$3.5 billion structural deficit this year.

Even assuming no budget reform and an unrestricted general fund structural deficit of about \$3 billion, the projected date-to-depletion of the state's reserves is unclear. That's because a significant share of permanent fund investment earnings are retained and allowed to accumulate in the PFER. In fiscal 2017, for example, the state forecasts investment earnings of \$3.4 billion, approximately \$1.4 billion of which would be spent on dividends under the existing methodology. The remaining \$2 billion in investment earnings would bolster and extend the life of the state's budget reserves even if they were simultaneously being drawn upon to fund the budget gap.

Nevertheless, Alaska's lawmakers confront a relatively urgent situation if they hope to move the state away from its budgetary dependence on the volatile oil-related revenues. In order for the annual draw from state savings to be sustainable, officials estimate that Alaska's invested assets need to generate a 6.5% average annual rate of return. According to the governor's proposal, the state's asset base currently could sustainably support a \$3.2 billion transfer to the general fund. But if lawmakers defer taking action, allowing PFER balances to be drawn down, the assets would support only a smaller annual transfer.

In our view, Alaska has sufficient financial resources to stabilize general fund operations if it can assemble the necessary political will to adopt the necessary changes. We expect this will require asking residents to accept reduced state spending, higher taxes, and, if it is to use investment earnings, a reconstituted -- and lower -- dividend payment. Although from a constitutional and statutory standpoint, the investment earnings are unrestricted revenues, using them to fund general fund expenses represents a politically difficult tradeoff. Given that lawmakers have yet to coalesce around either the governor's proposal or some alternative, we therefore continue to evaluate the state's creditworthiness largely according to its existing budgetary framework. Through this lens, and in light of the unrelenting oil price declines, the state's fiscal structure is deeply misaligned and its reserves, while still significant, are declining at a fast rate.

The stakes are high for the state to enact a package of fiscal reforms that would help stabilize the state's credit quality at a high rating level. Part of the administration's medium term fiscal strategy involves using pension obligation bonds in an effort to drive down the budgetary cost of funding actuarially sound annual contributions. On the economic development front over the longer term, we understand the state is interested in seeing its estimated 30 trillion cubic feet in natural gas reserves get developed. And lacking a mechanism for delivering the gas to market, state officials are contemplating partially debt-financing a natural gas pipeline. Both propositions make less economic sense, however, in a scenario where the state's credit rating is significantly lower and its cost of capital materially higher.

Based on the analytic factors we evaluate for states, on a four-point scale in which '1' is the strongest, Standard & Poor's has revised its composite score to '1.8' from '1.7.' (The changed composite score is the result of the state's fiscal imbalance, which caused us to revise to '1.7' from '1.3' the state's budgetary performance score. In addition, we revised the state's economic score to '1.5' from '1.4'.)

Composite scores ranging from 1.6 to 1.8 correspond with a 'AA+' rating under our criteria. Although previously we have employed a one-notch upward adjustment as allowed under our criteria to account for what we viewed as uncommonly high budget reserve levels, we view the current trajectory of the reserves and fiscal condition as no longer warranting this adjustment.

## Outlook

The negative outlook reflects the large structural budget deficit in Alaska's unrestricted general fund. Currently, the state is able to finance its operating deficits by withdrawing funds from its budgetary reserves. Alaska had built up large budget reserves that thus far have shielded the state's credit quality from the degradation that the large deficits would inflict on most states' credit quality. But the magnitude of the fiscal deficits makes the arrangement unsustainable and, unless corrected, inconsistent with the current rating. Therefore, we will likely again lower the state's rating -- possibly by more than one notch -- if state lawmakers do not enact measures to begin correcting the state's fiscal imbalance during its 2016 legislative session.

The typical lag that exists between the enactment of fiscal policy adjustments and when they yield results implies the need for lawmakers to act soon. Therefore, even with its reserve balances at still-strong levels, we would likely lower the state's rating even within the next year if lawmakers defer enacting corrective fiscal policy adjustments.

In the event policymakers continued to take no action, the current initial rating change most likely represents the first step in a downward migration that would likely accelerate as the state's reserve balances approached depletion. If lawmakers succeed in putting the state on what we view as a glide path to a sustainable fiscal structure, with its strong reserve balances still intact, we could revise the outlook to stable.

## Related Criteria And Research

### Related Criteria

- USPF Criteria: State Ratings Methodology, Jan. 3, 2011
- USPF Criteria: Financial Management Assessment, June 27, 2006
- USPF Criteria: Debt Statement Analysis, Aug. 22, 2006
- USPF Criteria: Appropriation-Backed Obligations, June 13, 2007
- USPF Criteria: U.S. Public Finance Long-Term Municipal Pools, March 19, 2012
- USPF Criteria: Methodology: Definitions And Related Analytic Practices For Covenant And Payment Provisions In U.S. Public Finance Revenue Obligations, Nov. 29, 2011
- USPF Criteria: Methodology: Rating Approach To Obligations With Multiple Revenue Streams, Nov. 29, 2011
- USPF Criteria: Assigning Issue Credit Ratings Of Operating Entities, May 20, 2015
- Criteria: Use of CreditWatch And Outlooks, Sept. 14, 2009

### Ratings Detail (As Of January 5, 2016)

Alaska GO		
<i>Long Term Rating</i>	AA+/Negative	Downgraded
Alaska APPROP		
<i>Long Term Rating</i>	AA/Negative	Downgraded
Alaska GO		
<i>Long Term Rating</i>	AA+/Negative	Downgraded
<b>Alaska Energy Auth, Alaska</b>		
Alaska		

**Ratings Detail (As Of January 5, 2016) (cont.)**

Alaska Energy Auth (Alaska) pwr rev (Bradley Lake Hydroelectric Proj)		
<i>Long Term Rating</i>	A+/Negative	Downgraded
<b>Alaska Mun Bnd Bank, Alaska</b>		
Alaska		
Alaska Mun Bnd Bank (Alaska) GO		
<i>Long Term Rating</i>	AA/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) GO and rfdg bnds (Alaska) ser 2015 THREE due 10/01/2044		
<i>Long Term Rating</i>	AA/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) GO moral oblig (MBIA) (National)		
<i>Unenhanced Rating</i>	AA(SPUR)/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) GO (AMBAC)		
<i>Unenhanced Rating</i>	AA(SPUR)/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) GO (Moral Ob)		
<i>Long Term Rating</i>	AA/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) Moral Ob 2015A-B TWO		
<i>Long Term Rating</i>	AA/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) MORALOBLIG		
<i>Long Term Rating</i>	AA/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) MORALOBLIG		
<i>Long Term Rating</i>	AA/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) MORALOBLIG		
<i>Long Term Rating</i>	AA/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) MORALOBLIG		
<i>Long Term Rating</i>	AA/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) MORALOBLIG		
<i>Long Term Rating</i>	AA/Negative	Downgraded
<b>Alaska Mun Bnd Bank GO</b>		
<i>Unenhanced Rating</i>	AA(SPUR)/Negative	Downgraded
<b>Alaska Mun Bnd Bank (Alaska) GO</b>		
<i>Unenhanced Rating</i>	AA(SPUR)/Negative	Downgraded
<b>Matanuska-Susitna Boro, Alaska</b>		
Alaska		
Matanuska-Susitna Boro (Alaska) lse rev rfdg bnds (Alaska) (Goose Creek Correctional Ctr Proj)		
<i>Long Term Rating</i>	AA/Negative NR(prelim)	Downgraded
Matanuska-Susitna Boro (Alaska) lse rev (Goose Creek Correctional Facs) (ASSURED GTY)		
<i>Unenhanced Rating</i>	AA(SPUR)/Negative	Downgraded

Many issues are enhanced by bond insurance.

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*Summary: Alaska; Appropriations; General Obligation; Moral Obligation*

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# Working Together to Close the Gap

**Revenue  
Sources Book**  
Fall 2015

**Tax Division**  
**Alaska Department of Revenue**  
[www.tax.alaska.gov](http://www.tax.alaska.gov)

# Revenue Sources Book Fall 2015

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THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

Department of Revenue

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December 30, 2015

The Honorable Bill Walker, Governor of Alaska  
P.O. Box 110001  
Juneau, Alaska 99811-0001

Dear Governor Walker,

I am pleased to present to you the Department of Revenue's Fall 2015 *Revenue Sources Book*.

The *Revenue Sources Book* is the annual publication that provides a history and projection of state revenues. This publication is a collaborative effort among the Department of Revenue, the Permanent Fund Corporation, and the Office of Management and Budget.

Briefly, total state revenue was \$8.5 billion in FY 2015 from all sources, a more than 50% drop in total revenue from FY 2014. Of this total, general fund unrestricted revenues totaled \$2.3 billion, with oil and gas revenues accounting for approximately 75% of all unrestricted revenue. Unrestricted revenues have also collapsed by over 50%. The department forecasts total revenue as \$9.5 billion in FY 2016 and \$10.3 billion in FY 2017. For comparison, in FY 2014, total state revenues were \$17.2 billion and general fund revenue totaled \$5.4 billion.

The FY 2016 revenue forecast is based on an annual average Alaska North Slope (ANS) oil price of about \$50 per barrel for FY 2016 and for FY 2017 about \$56 per barrel. Actual ANS oil prices averaged \$72.58 in FY 2015. The Department of Revenue projects that annual average prices will increase over \$80 nominal price within the ten year forecast period, based on fundamental analysis of the structure of oil markets.

For FY 2015, total crude oil production in the State of Alaska for the North Slope and Cook Inlet areas averaged 519,500 barrels per day. This is 27,400 barrels per day less than in FY 2014. North Slope production decreased from 531,100 in FY 2014 to 501,500 in FY 2015. While there was a 13.9% increase in production in Cook Inlet, this was not sufficient to offset a 5.6% decrease on the North Slope. Total Alaska oil production decreased by 5.0%.

Chapter Three, the specialty chapter of the *Revenue Sources Book*, is entitled *Bridging the Gap Toward a Sustainable Fiscal Future*.

We hope you find the information provided in the Fall 2015 *Revenue Sources Book* to be interesting and useful. The department will provide a forecast update in the spring of 2016.

Sincerely,

A handwritten signature in black ink, appearing to read 'Randall J. Hoffbeck'.

Randall J. Hoffbeck  
Commissioner



## In Memoriam Michael J. Burns

The Fall 2015 *Revenue Sources Book* is dedicated to Michael J. Burns, the longest-serving executive director of the Alaska Permanent Fund Corporation, and a dedicated servant to the state of Alaska.

Mike joined the APFC in 2004, as the corporation's chief executive officer, a position he held until his retirement on June 1, 2015. During his tenure, he worked with the Board of Trustees, the corporation's staff and the Legislature to increase the sophistication of the Fund's investments and bring more direct investment oversight in-house.

One of his first accomplishments was gaining passage of two important pieces of legislation that helped preserve the board's institutional knowledge and gave the board greater investment flexibility to respond to changing market conditions. Under his guidance, the APFC created new programs, such as the infrastructure portfolio. Mike worked directly on the Permanent Fund's first direct private equity investment, which was in a company that owns and manages single-family homes for rent. He also encouraged the board to undertake the Fund's first construction project, the recently completed expansion at Tysons Corner Center outside Washington, D.C.

Mike was also involved in the formation of the International Forum of Sovereign Wealth Funds, and helped draft the Forum's Santiago Principles, which promote openness and transparency.

Although Mike was dedicated to Alaska, his roots were in Galesburg, Illinois, where he was born in 1946. He received a Bachelor of Arts degree in political science from Knox College in Galesburg, Illinois, and obtained his law degree from the University of Denver. Mike was admitted to the practice of law in Colorado, Missouri and Illinois. He worked for First Midwest Bancorp of Illinois from 1973 to 1985, becoming senior vice president of Corporate Banking.

In 1985, Mike and his family moved to Alaska so that he could accept the position of president of Alaska Pacific Bank, which he held until October 1987. At that time, Alaska Pacific Bank and its sister bank, First National Bank of Fairbanks, combined to form KeyBank of Alaska and Mike assumed the role of president of the merged bank. In his role as president and chief executive officer of KeyBank of Alaska, Burns directed its growth from eight to more than 20 branches and moved the bank into position as the third-largest bank in the state. He retired from KeyBank in 2002.

Mike's service to Alaska went well beyond his work in Alaska's banking and finance industries. In 2004, he chaired the Conference of Alaskans in Fairbanks, designed as a reflection of the 1956 Alaska Constitutional Convention, where 55 delegates met over three days on the University of Alaska Fairbanks campus to discuss Alaska's fiscal challenges and proposed solutions.

In addition to the Conference of Alaskans, Mike served on many boards and commissions in Alaska, including the University of Alaska Foundation Board of Trustees, The Nature Conservancy of Alaska Board of Trustees, Boys and Girls Clubs of Anchorage, Alaska Children's Trust, Alaskan Command Civilian Advisory Board, and the Alaska Community Foundation. He was also elected to three terms as chairman of the University of Alaska Board of Regents, and seven terms as chairman of the Anchorage Telephone Utility.

Throughout his 30 years in Alaska, Mike contributed in many ways to the state's public and private sectors, and to the educational and nonprofit communities as well. The results of his considerable efforts will benefit present and future generations of Alaskans in the years to come.

# Revenue Sources Book Fall 2015



Alaska Department of Revenue • Tax Division • [www.tax.alaska.gov](http://www.tax.alaska.gov)

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# Chapter 1

## Introduction

### Purpose

The *Revenue Sources Book* (RSB) is intended to provide Alaskans with a report of historical, current, and estimated future state revenue. The Governor uses the information in this publication to formulate his comprehensive financial plan before presenting it to the Alaska State Legislature. Over the years, the RSB has become an educational tool to inform the general public of how the state's revenues are structured. The RSB also provides in-depth coverage on a topic relevant to current or future state revenues each year in Chapter 3. This year's chapter is entitled, "Bridging the Gap Toward a Sustainable Fiscal Future."

This publication is prepared primarily by the Economic Research Group, a part of the Tax Division in the Department of Revenue, in accordance with AS 37.07.060 (b)(4). Forecasts of state revenue are made using models developed by the department's Economic Research Group and other state agencies. The department expresses its gratitude to those state agencies and the individuals in those agencies who have provided information, assistance, and analysis for this RSB.

### Forward-Looking Statements

All figures and narratives in this document that are not based on events that have already occurred constitute forecasts or "forward-looking statements." These numbers are projections based on assumptions regarding uncertain future events and the responses to those events. Such figures are, therefore, subject to uncertainties and actual results will differ, potentially materially, from those anticipated. The department attempts to capture these uncertainties in order to provide policymakers and the general public with a general understanding of the scale and scope of future revenue streams. These figures do not necessarily represent a single scenario of a future path. The official forecast process takes into account many possible outcomes and attempts to minimize deviations from what is likely to happen.

Readers are cautioned to take uncertainty into account when considering forward-looking statements in making decisions. The department will update the

estimates in this RSB in the spring of 2016, as more information is received. This forecast supersedes all prior estimates or forecasts as the official forecast of the department. Therefore, all prior forecasts should be used only for comparison purposes.

### QR Codes

As with the Fall 2014 RSB, quick response (QR) codes are again included on the first page of each chapter so that the data tables are accessible online in Microsoft Excel format. To access them, use a QR code recognition application with your mobile phone, smart phone, or tablet to take a picture of the QR code, which looks similar to Figure 1-A. The Figure 1-A QR code will take you to the *Revenue Sources Book* directory on the Tax Division website. The device will display a website with the link to download the Microsoft Excel workbook containing the tables found in the corresponding chapter. If you are reading the RSB in PDF form, the QR code images are hyperlinked to their corresponding Web addresses.

### Changes

Additional tables have been added to Chapter 2 and Chapter 8. In Chapter 2, two tables have been added: Table 2-5 to provide additional context to the state's restricted revenue, and Table 2-6 to include the numeric data previously only shown in Figure 2-B detailing historical total state revenue. The one table that was added in Chapter 8, Table 8-4, includes the maximum level of detail releasable for historical and forecasted oil and gas production tax credits, a subject of substantial ongoing discussion throughout the state. This table divides oil and gas credits between those that are refundable and those used against tax liability, and by geographic location where the credit was claimed. This table includes historical data back to FY 2007 and the credits forecast out to 2020. This data set was first put together and released to the public earlier in 2015.

### Defining Revenue Categories

Throughout the RSB, revenues are divided into categories in two ways: by revenue source (where the revenue comes from), and spending restriction or designation

(how the revenue may be used). There are three basic revenue sources: 1) funds collected from in-state activities, 2) funds received from the federal government, and 3) earnings from investments (interest and payments earned on assets owned by the state). Due to the importance of revenues from oil production, in-state activities are further divided into a) petroleum revenue and b) non-petroleum revenue. A graphic depiction of how the revenues are categorized by revenue collection type is shown in Figure 1-B.

Chapter 1

A

## QR Codes

To access data tables online



Revenue is also categorized by the level of restrictions regarding its use. Those categories are “unrestricted” (available to fund general state activities and capital projects) or “restricted” (historically used or required to be used for a specific purpose).

Any revenue that is not restricted by the Alaska Constitution, state or federal law, trust or debt restrictions, or customary practice is considered “General Fund Unrestricted Revenue” or simply “unrestricted revenue.”

Most legislative and public discussion centers on the unrestricted category of revenue, and it is the figure most commonly referenced in budget discussions.

Restricted revenues are divided into three types: “Designated General Fund,” “Other Restricted Revenue,” and “Federal Revenue” to aid in the budget process.

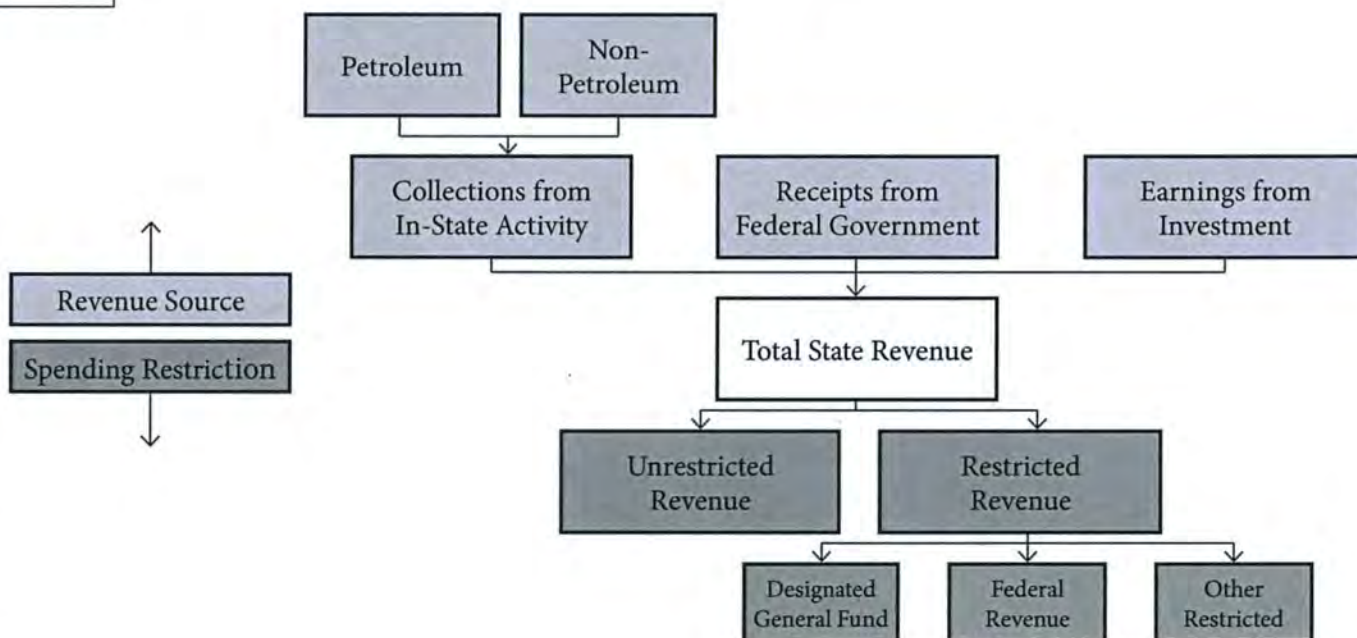
This year the department is presenting additional context on how the “restricted” revenues are categorized. Figure 2-5 as part of the Executive Summary details this context. The new presentation shows all revenue that is available for current-year appropriation, regardless of customary uses or restrictions. Revenue available for current-year appropriation includes unrestricted revenue, but also certain customarily restricted revenues, such as revenue that flows into the Constitutional Budget Reserve Fund, and realized earnings of the Permanent Fund. Discussion of this concept can be found in Chapter 2. Presentation of unrestricted and restricted revenues is otherwise unchanged in this RSB.

Chapter 1

B

## Revenue Categories

The sources and restrictions on spending



# Chapter 2

## Executive Summary



### Introduction

The State of Alaska received a total \$8.5 billion in FY 2015 from all sources, more than a 50% drop in total revenue from FY 2014. Of this total, general fund unrestricted revenues (GFUR) totaled \$2.3 billion, with oil and gas revenues accounting for approximately 75% of all unrestricted revenue. Unrestricted revenues have also collapsed by over 50%. For comparison, in FY 2014, total state revenues were \$17.2 billion and GFUR totaled \$5.4 billion. The Department of Revenue forecasts total revenue as \$9.5 billion in FY 2016 and \$10.3 billion in FY 2017.

Utilizing the new convention for the *Revenue Sources Book* that takes into account what is available for appropriation, there is expected to be about \$5.4 billion in current-year revenue available for appropriation for FY 2016. For comparison, the state had \$6.0 billion in current-year revenue available for appropriation in FY 2015. In addition to unrestricted revenue, "current-year revenue available for appropriation" also includes designated general fund revenue, as well as realized earnings of the Permanent Fund accounted

for in the Earnings Reserve, earnings of the Constitutional Budget Reserve Fund, various royalty and tax deposits to the Constitutional Budget Reserve, and various royalty and tax deposits in excess of the constitutional minimum into the Permanent Fund.

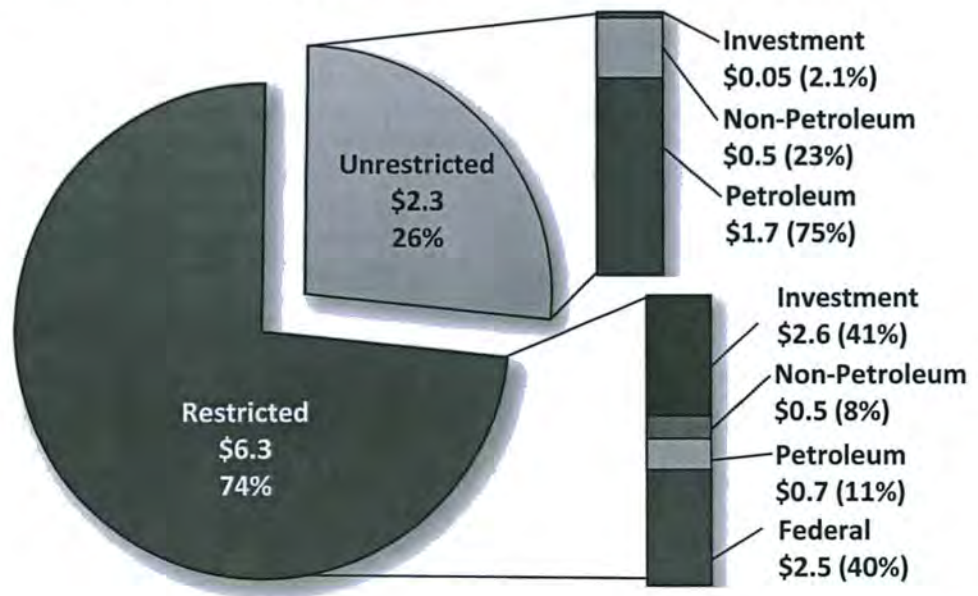
Figure 2-A graphically illustrates the composition of total revenue by restriction and type. As depicted in Table 2-1, the department is forecasting unrestricted revenue (not the new convention) of \$1.6 billion and \$1.8 billion for FY 2016 and FY 2017, respectively. This is a revision to the department's forecast of unrestricted revenue from the previous forecast. The single-most influential contributor to the revision is a reduced oil price expectation.

The FY 2016 revenue forecast is based on an annual average Alaska North Slope (ANS) oil price of about \$50 per barrel for FY 2016 and about \$56 per barrel for FY 2017. The oil price forecast is considerably less than the last several years. Actual ANS oil prices averaged \$72.58 in FY 2015. For FY 2016, the ANS West Coast average oil price forecast declined to below \$50 per barrel in this forecast from about \$66 in the spring 2015 forecast, a

Chapter 2  
**A**

### FY 2015 Total State Revenue

By restriction and type, in billions of dollars



# Total State Revenue

By restriction and source

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b>Unrestricted Revenue Sources</b>			
<b>Unrestricted General Fund Revenue</b>			
Petroleum Revenue	1,687.9	1,061.5	1,237.3
Non-Petroleum Revenue	521.5	510.1	521.0
Investment Revenue	47.9	21.3	38.1
Federal Revenue	0.0	0.0	0.0
<b>Total Unrestricted Revenue</b>	<b>2,257.3</b>	<b>1,593.0</b>	<b>1,796.4</b>
<b>Restricted Revenue Sources</b>			
<b>Designated General Fund Revenue</b>			
Non-Petroleum Revenue	313.3	348.2	338.7
Investment Revenue	17.7	6.8	37.8
<b>Subtotal Designated General Fund Revenue</b>	<b>331.0</b>	<b>355.0</b>	<b>376.5</b>
<b>Other Restricted Revenue</b>			
Petroleum Revenue	667.3	307.7	351.8
Non-Petroleum Revenue	183.9	219.7	220.5
Investment Revenue	2,585.7	3,773.4	4,309.0
<b>Subtotal Other Restricted Revenue</b>	<b>3,436.9</b>	<b>4,300.8</b>	<b>4,881.3</b>
<b>Federal Revenue</b>			
Petroleum Revenue <sup>1</sup>	3.2	4.3	4.3
Federal Receipts	2,512.7	3,290.2	3,290.2
<b>Subtotal Federal Revenue</b>	<b>2,515.9</b>	<b>3,294.5</b>	<b>3,294.5</b>
<b>Total Restricted Revenue</b>	<b>6,283.8</b>	<b>7,950.3</b>	<b>8,552.3</b>
<b>Total State Revenue</b>	<b>8,541.1</b>	<b>9,543.3</b>	<b>10,348.7</b>

<sup>1</sup>Petroleum revenue shown in the federal category includes the state share of rents, royalties, and bonuses received from the National Petroleum Reserve in Alaska.

decline of 25%. The department projects that annual average prices will increase over \$80 (nominal) within the 10-year forecast period, based on fundamental analysis of the structure of oil markets.

For FY 2015, total crude oil production in Alaska for the North Slope and Cook Inlet areas averaged 519,500 barrels per day. This is 27,400 barrels per day less than in FY 2014. North Slope production decreased from 531,100 in FY 2014 to 501,500 in FY 2015. While there was a 13.9% increase in production in Cook Inlet, this was not sufficient to offset a 5.6% decrease on the North Slope. Total statewide oil production decreased

by 5.0%. In general, this provides downward pressure on oil and gas revenues, although not on the same scale as the decrease in price.

Lease expenditures are expected to drop over the next two years. While decreases in lease expenditures result in higher near-term total revenue, they may mean lower long-term production rates.

## General Fund Unrestricted Revenue

General fund unrestricted revenue is not restricted by the Alaska Constitution, state or federal law, trust

## Unrestricted General Fund Revenue

By source and type

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b>Unrestricted Petroleum Revenue</b>			
<b>Petroleum Taxes</b>			
Petroleum Property Tax	125.2	133.9	131.7
Petroleum Corporate Income Tax	94.8	105.0	160.0
Oil & Gas Production Tax	389.7	172.1	187.8
<b>Subtotal Petroleum Taxes</b>	<b>609.7</b>	<b>411.0</b>	<b>479.5</b>
<b>Royalties (including Bonuses, Rents, and Interest)</b>			
Mineral Bonuses and Rents	22.4	8.7	8.7
Oil & Gas Royalties	1,052.1	637.6	745.0
Interest	3.7	4.2	4.2
<b>Subtotal Royalties</b>	<b>1,078.2</b>	<b>650.5</b>	<b>757.8</b>
<b>Total Unrestricted Petroleum Revenue</b>	<b>1,687.9</b>	<b>1,061.5</b>	<b>1,237.3</b>
<b>Unrestricted Non-Petroleum Revenue</b>			
<b>Non-Petroleum Taxes</b>			
<b>Excise Tax</b>			
Alcoholic Beverage	17.7	20.0	20.1
Tobacco Product – Cigarette	27.7	28.2	27.2
Tobacco Product – Other	12.8	14.2	14.9
Electric and Telephone Cooperative	0.2	0.2	0.2
Insurance Premium	59.1	58.9	58.3
Marijuana	0.0	0.0	12.0
Motor Fuel	41.8	51.2	51.0
Tire Fee	1.5	1.5	1.6
Vehicle Rental	9.7	9.5	9.6
<b>Subtotal Excise Tax</b>	<b>170.5</b>	<b>183.7</b>	<b>194.9</b>
<b>Corporate Income Tax</b>	<b>136.2</b>	<b>104.7</b>	<b>105.3</b>
<b>Fisheries Tax</b>			
Fisheries Business	21.3	19.5	17.2
Fishery Resource Landing	5.1	5.3	5.6
<b>Subtotal Fisheries Tax</b>	<b>26.4</b>	<b>24.8</b>	<b>22.8</b>
<b>Other Tax</b>			
Charitable Gaming	2.5	2.5	2.5
Estate	0.0	0.0	0.0
Large Passenger Vessel Gambling	6.6	6.7	6.7
Mining	38.6	24.4	21.3
<b>Subtotal Other Tax</b>	<b>47.7</b>	<b>33.6</b>	<b>30.5</b>
<b>Subtotal Non-Petroleum Taxes</b>	<b>380.8</b>	<b>346.8</b>	<b>353.5</b>

(Table continued, next page)

**Unrestricted General Fund Revenue**

By source and type (Continued)

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b>Unrestricted Non-Petroleum Revenue</b>			
<b>Charges for Services</b>			
General Government	13.9	12.8	12.8
Natural Resources <sup>1</sup>	-0.6	2.6	2.6
Other	6.8	7.3	7.3
<b>Subtotal Charges for Services</b>	<b>20.1</b>	<b>22.7</b>	<b>22.7</b>
<b>Fines and Forfeitures</b>	<b>12.4</b>	<b>11.4</b>	<b>11.4</b>
<b>Licenses and Permits</b>			
Alcoholic Beverage Licenses	1.3	1.3	1.3
Motor Vehicle	29.5	38.0	35.5
Other	3.6	3.2	3.2
<b>Subtotal Licenses and Permits</b>	<b>34.4</b>	<b>42.5</b>	<b>40.0</b>
<b>Rents and Royalties</b>			
Mining Rents and Royalties	17.0	15.8	15.8
Other Non-Petroleum Rents and Royalties	19.3	15.0	15.0
<b>Subtotal Rents and Royalties</b>	<b>36.3</b>	<b>30.8</b>	<b>30.8</b>
<b>Miscellaneous Revenues and Transfers</b>			
Miscellaneous	16.4	21.6	21.6
Alaska Housing Finance Corporation	3.1	8.7	13.4
Alaska Industrial Development & Export Authority <sup>2</sup>	10.2	17.7	17.7
Alaska Municipal Bond Bank Authority	0.0	0.9	0.9
Alaska Student Loan Corporation	0.6	0.0	0.0
Alaska Energy Authority	0.2	1.0	1.0
Alaska Natural Gas Development Authority	0.0	0.0	0.0
Mental Health Trust	0.0	0.0	0.0
Unclaimed Property	7.0	6.0	8.0
<b>Subtotal Miscellaneous Revenues and Transfers</b>	<b>37.5</b>	<b>55.9</b>	<b>62.6</b>
<b>Total Unrestricted Non-Petroleum Revenue</b>	<b>521.5</b>	<b>510.1</b>	<b>521.0</b>
<b>Unrestricted Investment Revenue</b>			
<b>Investment Revenue</b>			
Investments	46.3	19.7	36.5
Interest Paid by Others	1.6	1.6	1.6
<b>Subtotal Unrestricted Investment Revenue</b>	<b>47.9</b>	<b>21.3</b>	<b>38.1</b>
<b>Total Unrestricted Revenue</b>	<b>2,257.3</b>	<b>1,593.0</b>	<b>1,796.4</b>

<sup>1</sup> The Natural Resources category is reported as negative in FY 2015 because of a large year-to-year adjustment in the state accounting system.

<sup>2</sup> As of Dec. 8, 2015, the AIDEA dividend for FY 2017 is expected to be \$6.3 million. This information was received after compiling the fall 2015 revenue forecast, and will be incorporated into the spring 2016 update.

# Restricted Revenue

By source and type

Fiscal Year	Millions of Dollars		
	History 2015	Forecast 2016	2017
<b>Designated General Fund Revenue</b>			
<b>Non-Petroleum Revenue</b>			
Taxes	51.9	48.8	48.0
Charges for Services	227.4	267.1	258.5
Fines and Forfeitures	7.6	9.1	9.0
Licenses and Permits	0.1	0.2	0.2
Rents and Royalties	3.4	4.2	4.2
Other	22.9	18.8	18.8
<b>Subtotal Non-Petroleum Revenue</b>	<b>313.3</b>	<b>348.2</b>	<b>338.7</b>
<b>Investment Revenue</b>			
Investments – Designated General Fund	2.0	1.8	2.9
Other Treasury Managed Funds	15.7	5.0	34.9
<b>Subtotal Investment Revenue</b>	<b>17.7</b>	<b>6.8</b>	<b>37.8</b>
<b>Total Designated General Fund Revenue</b>	<b>331.0</b>	<b>355.0</b>	<b>376.5</b>
<b>Other Restricted Revenue</b>			
<b>Petroleum Revenue</b>			
Royalties to Alaska Permanent Fund and Public School Trust Fund (includes Bonuses and Rents)	518.3	287.7	331.8
Tax and Royalty Settlements to Constitutional Budget Reserve Fund	149.0	20.0	20.0
<b>Subtotal Petroleum Revenue</b>	<b>667.3</b>	<b>307.7</b>	<b>351.8</b>
<b>Non-Petroleum Revenue</b>			
Taxes	68.2	67.7	68.7
Charges for Services	45.3	82.4	82.4
Fines and Forfeitures	23.6	23.5	23.3
Licenses and Permits	33.9	32.4	32.4
Rents and Royalties	6.0	6.9	6.9
Other	6.9	6.8	6.8
<b>Subtotal Non-Petroleum Revenue</b>	<b>183.9</b>	<b>219.7</b>	<b>220.5</b>
<b>Investment Revenue</b>			
Investments – Other Restricted	4.1	3.7	5.9
Constitutional Budget Reserve Fund	197.7	65.5	95.8
Alaska Permanent Fund (realized earnings) <sup>1</sup>	2,931.4	3,354.4	3,403.5
Alaska Permanent Fund (unrealized earnings) <sup>1</sup>	-547.5	349.8	803.8
<b>Subtotal Investment Revenue</b>	<b>2,585.7</b>	<b>3,773.4</b>	<b>4,309.0</b>
<b>Total Other Restricted Revenue</b>	<b>3,436.9</b>	<b>4,300.8</b>	<b>4,881.3</b>

<sup>1</sup> While payouts are limited to realized revenues, both unrealized and realized are shown per Generally Accepted Accounting Principles (GAAP).

(Table continued, next page)

## Restricted Revenue

### By source and type *(Continued)*

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b>Restricted Federal Revenue</b>			
<b>Federal Receipts</b>	<b>2,512.7</b>	<b>3,290.2</b>	<b>3,290.2</b>
<b>Petroleum Revenue</b>			
NPR-A Royalties, Rents and Bonuses	3.2	4.3	4.3
<b>Total Restricted Federal Revenue</b>	<b>2,515.9</b>	<b>3,294.5</b>	<b>3,294.5</b>
<b>Total Restricted Revenue</b>	<b>6,283.8</b>	<b>7,950.3</b>	<b>8,552.3</b>

or debt restrictions, or customary practice. Table 2-2 provides an overview of the FY 2015 composition of general fund unrestricted revenue as well as forecasts for FY 2016 and FY 2017.

In FY 2015, the state received \$2.3 billion in revenue from unrestricted sources, \$1.7 billion of which came from petroleum-related activities. For FY 2016, the department is forecasting a further decrease in unrestricted general fund revenue to \$1.6 billion. This projection is the result of lower global oil prices because of ample supplies on the market, the unlikelihood of Saudi Arabia curtailing oil supply, and flat global demand.

### Petroleum Revenues

Petroleum revenue provided 75% of FY 2015 unrestricted revenues, and is not projected to provide more than 72% throughout the rest of the decade as shown in Table 2-4. The unrestricted petroleum revenues come from four components – production tax, royalties, corporate income tax, and petroleum property tax. In turn, four elements are critical to the determination of these revenues: price, production, lease expenditures, and transportation costs. These components are explained briefly below and in greater detail in Chapter 4. Details regarding the remaining petroleum revenue sources can also be found in Chapter 4.

### Crude Oil Price

By regulation, the department uses reporting and assessment services to estimate the “prevailing value” for ANS oil. Because there is no spot market for ANS

crude, and as it is not traded on an exchange, Alaska crude oil is assessed based on purchases of crude oil in the West Coast markets, where it is sold primarily to Washington state and California refiners. The average prevailing value of ANS in FY 2015 was \$72.58, a third less than the previous fiscal year’s \$107.57.

In the past, ANS crude was valued against the West Texas Intermediate (WTI) benchmark in the *Revenue Sources Book*. However, since the WTI benchmark has decoupled from ANS and other crude markers, assessment of ANS is now more comparable to other waterborne crude oils such as Brent. Since 2012, the department has forecasted ANS crude oil price directly, rather than forecasting WTI and creating an ANS-WTI differential.

The department considered various oil price forecasts of WTI and Brent oil in deriving the fall 2015 ANS oil price forecast and relied on a panel of experts in determining the price expectations for ANS. The department projects ANS oil prices will average around \$50 per barrel for FY 2016 and \$56 for FY 2017. In the longer-term, the department forecasts ANS to increase above \$80. It is likely that there may be significant oil price volatility within the decade. Details about oil price forecast methodology are provided in Chapter 4.

### Crude Oil Production

In the 38th full fiscal year of North Slope production, FY 2015 averaged 501,500 barrels of oil per day. Production in FY 2016 is forecast to be 500,200 barrels of oil per day; by FY 2017, production is forecast to remain relatively flat at around 504,900 barrels per day.

# Total Unrestricted General Fund Revenue

A 10-year forecast

Millions of Dollars

Fiscal Year	History		Forecast								
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Petroleum	1,687.9	1,061.5	1,237.3	1,443.0	1,532.5	1,493.9	1,535.1	1,476.1	1,399.4	1,361.7	1,325.6
Non-Petroleum	521.5	510.1	521.0	525.2	530.1	535.2	541.4	544.2	551.0	558.0	565.0
Investment	47.9	21.3	38.1	52.8	67.5	82.2	96.8	111.5	126.2	140.9	155.5
<b>Total</b>											
<b>Unrestricted Revenue</b>	<b>2,257.3</b>	<b>1,593.0</b>	<b>1,796.4</b>	<b>2,021.0</b>	<b>2,130.0</b>	<b>2,111.3</b>	<b>2,173.3</b>	<b>2,131.8</b>	<b>2,076.5</b>	<b>2,060.6</b>	<b>2,046.1</b>
Percent from Petroleum	75%	67%	69%	71%	72%	71%	71%	69%	67%	66%	65%

Annual average daily production is projected to drop below 500,000 barrels per day starting in FY 2018.

Cook Inlet, in its 57th fiscal year of production, saw a fifth consecutive increase in its annual oil production rate. At 18,000 barrels per day, a 14% increase in production rates over FY 2014, Cook Inlet is now producing more oil than its FY 2007 level. It is not clear what a low oil price environment will do to this production growth.

## Lease Expenditures

Under Alaska's net tax system, companies are allowed to deduct certain lease expenditures from the gross value of their production before applying the tax rate. Future tax collections, therefore, are dependent not only on the oil price and the level of production, but also on the cost of that production. Costs of production may include operating expenses, such as the costs of labor or the expense to run a facility, and they may include costs to acquire production equipment or to drill a well – usually deemed to be capital expenses.

North Slope lease expenditures totaled approximately \$7.4 billion in FY 2015. The department projects total North Slope spending to decrease to \$6.9 billion in FY 2016 and \$6.5 billion in FY 2017, and continue to taper off thereafter. Compared to the spring 2015 revenue forecast, this represents a decrease of about \$700 million for FY 2016 and a decrease of about \$800 million for FY 2017.

## Transportation Costs

As the volume of oil flowing through a pipeline decreases, the costs of maintaining that pipeline are spread over fewer barrels of oil. The result is that the average cost of delivery for each barrel of oil increases as production declines. Additionally, changes in marine shipping rates include changes in labor costs, capital investment, and cost of fuel. The department is now expecting an increase in costs compared to

the previous forecast. The average cost of delivering oil from Alaska's North Slope to the West Coast is forecast to be about \$10.56 per barrel in FY 2016 and to increase to \$18 per barrel by FY 2025.

## Non-Petroleum Revenue from In-State Activity

Other unrestricted revenue includes corporate income taxes from non-petroleum related businesses, excise taxes, consumption taxes, charges for services, fines, forfeitures, licenses, permits, rents, royalties, transfers, and other miscellaneous revenue. These revenues are referred to as "non-petroleum revenues from in-state activity," and do not include federal and investment revenues. Details regarding these revenue sources can be found in Chapter 5. Unrestricted non-petroleum revenues from in-state activities are expected to be over \$500 million in FY 2016, representing a third of all unrestricted revenues. By FY 2025, these revenues are projected to rise to about \$565 million.

## Unrestricted Investment Revenue

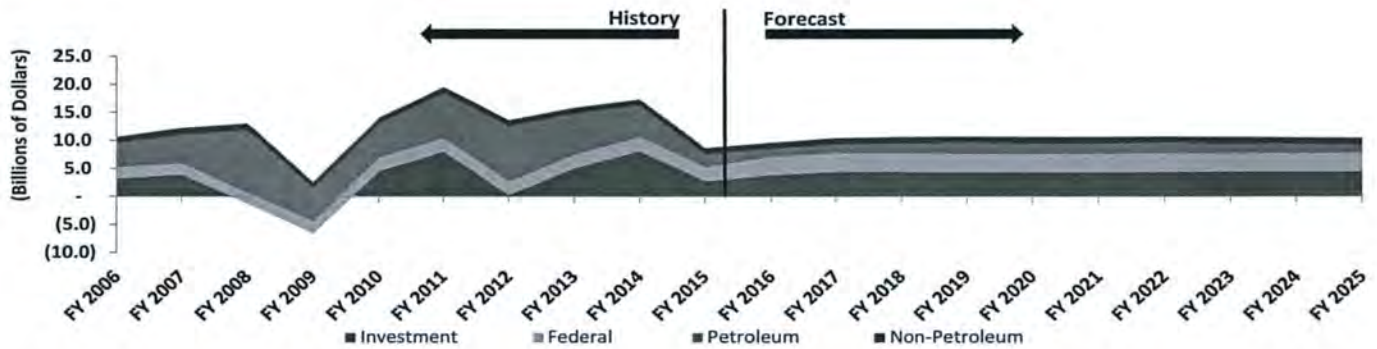
Unrestricted investment revenues are primarily earnings on the general fund. Unrestricted investment revenue is expected to be \$21 million in FY 2016. For comparison, in FY 2015 the unrestricted investment revenue was \$48 million. This represents only a small portion of total investment revenue. The majority of investment revenue is not considered unrestricted and is discussed below.

## Restricted Revenues

Restricted revenue includes revenue restricted by the constitution, state or federal law, trust or debt restrictions, customary practice, or other restriction. Table 2-3 shows the components of restricted revenue, which includes money deposited into the "restricted" com-

# Total State Revenue

A look back and a forecast



ponent of the general fund, with certain additions.<sup>1</sup> The largest sources of restricted revenue are royalty contributions to the Permanent Fund, receipts from the federal government, and earnings from investments, as well as other restricted non-petroleum revenues. FY 2015 brought \$6.3 billion in total restricted revenues to the state. The FY 2016 projection for total state restricted revenues is \$8.0 billion. Details regarding these sources can be found in chapters 4, 5, 6, and 7.

Some revenue that has historically been considered “restricted” revenue is technically available for current-year appropriation, and is only restricted through custom. This includes designated general fund revenue, as well as realized earnings of the Permanent Fund accounted for in the Earnings Reserve, earnings of the Constitutional Budget Reserve Fund, various royalty and tax deposits to the Constitutional Budget Reserve Fund, and various royalty and tax deposits in excess of the constitutional minimum into the Permanent Fund.

Despite being available for appropriation, both the Constitutional Budget Reserve Fund revenues described above would require a legislative supermajority to approve the appropriation. Table 2-5 presents all current-year revenues available for appropriation, regardless of whether they have traditionally been considered “unrestricted” or “restricted.”

## Restricted Royalties

The FY 2016 projection for royalty, bonus, rents, and interest to the Permanent Fund is \$283 million, while

<sup>1</sup>Additions might include: (a) receipts deposited in funds other than the general fund, and (b) receipts deposited in the general fund, but restricted by statute or customarily appropriated for a particular purpose or program, such as sharing of fish tax revenue with municipalities.

actual FY 2015 revenue for this category was \$510.4 million. This figure tracks expected changes in price, transportation costs, and production over time. By FY 2025, the department forecasts that Permanent Fund contributions will be \$289.8 million, as the impact on royalty revenue from lower oil production is roughly balanced by higher oil prices. In addition to Permanent Fund deposits, 0.5% of royalty revenue is deposited into the Public School Trust Fund. The latter deposits amounted to \$7.9 million in FY 2015.

## Total Investment Revenue

Investment income is the earnings generated from certain assets such as the Permanent Fund, the Constitutional Budget Reserve Fund, and other funds. In FY 2015, the state earned \$2.7 billion on total state assets of about \$67 billion. The department is forecasting \$3.8 billion in FY 2016 investment income from these assets. More information about investment revenue can be found in Chapter 7.

## Federal Revenue

All federal funds the state receives are considered restricted for purposes of this forecast. Federal funds include revenues for highways, medical care, education, and other designated purposes. Over recent years, this revenue source has contributed between \$2 billion and \$2.5 billion annually. The state received \$2.5 billion in FY 2015 and is forecasting \$3.3 billion in federal payments to the state for pre-determined uses in FY 2016. However, consistent with practice in prior years, the forecast represents the maximum possible federal revenue contribution, while actual revenues routinely come in below that forecast. More detail regarding federal revenue can be found in Chapter 6.

# Current-Year Revenue Subject to Appropriation<sup>1</sup>

By source

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b>Petroleum Revenue</b>			
Unrestricted General Fund	1,687.9	1,061.5	1,237.3
Royalties to Alaska Permanent Fund beyond 25% dedication <sup>2</sup>	111.3	48.4	53.9
Tax and Royalty Settlements to Constitutional Budget Reserve Fund	149.0	20.0	20.0
<b>Subtotal Petroleum Revenue</b>	<b>1,948.2</b>	<b>1,130.0</b>	<b>1,311.2</b>
<b>Non-Petroleum Revenue</b>			
Unrestricted General Fund	521.5	510.1	521.0
Designated General Fund	313.3	348.2	338.7
Royalties to Alaska Permanent Fund beyond 25% dedication <sup>2</sup>	0.2	1.1	1.1
Tax and Royalty Settlements to Constitutional Budget Reserve Fund	0.1	0.1	0.1
<b>Subtotal Non-Petroleum Revenue</b>	<b>835.1</b>	<b>859.5</b>	<b>860.9</b>
<b>Investment Revenue</b>			
Unrestricted General Fund	47.9	21.3	38.1
Designated General Fund	17.7	6.8	37.8
Constitutional Budget Reserve Fund	197.7	65.5	95.8
Alaska Permanent Fund – Realized Earnings <sup>3</sup>	2,931.4	3,354.4	3,403.5
<b>Subtotal Investment Revenue</b>	<b>3,194.7</b>	<b>3,448.0</b>	<b>3,575.2</b>
<b>Total Current-Year Revenue Subject to Appropriation<sup>1</sup></b>	<b>5,977.9</b>	<b>5,437.5</b>	<b>5,747.3</b>

<sup>1</sup> This represents only the largest known categories of current-year funds subject to appropriation. A comprehensive review of all accounts in the state accounting system would likely reveal additional revenues subject to appropriation beyond those identified here.

<sup>2</sup> Estimate based on deposit to Permanent Fund minus 25% of total royalties.

<sup>3</sup> Investment revenue from the Permanent Fund available for appropriation is based on realized gains, a portion of which has been used to inflation-proof the fund historically. In order to inflation-protect the fund in FY 2016, the appropriation is projected at \$892 million.

# Total State Revenue

A look back and a forecast

Billions of Dollars

Fiscal Year	History									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Petroleum	4.4	5.1	11.3	6.1	6.2	8.1	9.9	7.4	5.7	2.4
Non-Petroleum	1.0	1.2	1.1	0.9	0.9	1.0	1.0	1.0	1.0	1.0
Investment	3.2	3.9	-1.3	-6.6	4.5	8.0	0.2	5.0	8.1	2.7
Federal	2.0	2.0	1.9	2.1	2.4	2.4	2.5	2.4	2.5	2.5
<b>Total</b>	<b>10.5</b>	<b>12.2</b>	<b>13.1</b>	<b>2.5</b>	<b>13.9</b>	<b>19.5</b>	<b>13.6</b>	<b>15.8</b>	<b>17.2</b>	<b>8.5</b>

Billions of Dollars

Fiscal Year	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Petroleum	1.4	1.6	1.8	2.0	1.9	1.9	1.9	1.8	1.7	1.6
Non-Petroleum	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Investment	3.8	4.4	4.4	4.3	4.3	4.3	4.4	4.4	4.4	4.4
Federal	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
<b>Total</b>	<b>9.5</b>	<b>10.3</b>	<b>10.6</b>	<b>10.7</b>	<b>10.6</b>	<b>10.7</b>	<b>10.6</b>	<b>10.5</b>	<b>10.5</b>	<b>10.5</b>



## Chapter 3

# Bridging the Gap Toward a Sustainable Fiscal Future

### Introduction: Alaska's Fiscal Crisis

The state is facing a period of fiscal uncertainty unrivaled in Alaska's history. In the current fiscal year (FY 2016), unrestricted general fund revenue will cover only 40 percent of the budget, leaving more than a \$3 billion gap between spending and revenue – despite a 19% reduction in state spending this year. Alaska North Slope (ANS) oil prices have declined from over \$100 per barrel in August 2014 to under \$40 in December 2015. The result has been a significant reduction in the near- and mid-term revenue forecast for the state of Alaska.

If the status quo continues, savings from the state's Constitutional Budget Reserve (CBRF) will again be required to cover the gap, but at current and projected oil prices these savings will be depleted by the end of fiscal year 2018. Neither world oil price nor North Slope production are expected to increase sufficiently to make up for these large revenue shortfalls.

In the 2015 session, \$900 million in budget cuts were passed with no substantial revenue measures pursued. In the summer of 2015, the Department of Revenue was tasked with identifying potential short, medium and long-term revenue options in order to help transition Alaska out of its current fiscal situation. In an effort to identify as many options as possible, the department leadership and staff undertook a comprehensive inventory of ideas and concepts that have been proposed and in some cases considered in the past. In addition, the leadership encouraged a discussion of potential new ideas as well as an analysis of the range and type of solutions being discussed in the Alaska Legislature.

A document was produced as a first draft or "blueprint" of the myriad options to be considered in helping transition and guide Alaska in the direction of long-term fiscal stability. This white paper, *Poten-*

*tial Fiscal and Revenue Options for the Walker-Mallott Administration*, is available on the state's website.<sup>1</sup> In addition, the department's Tax Division developed an interactive fiscal model incorporating many of these ideas, in which individuals could experiment and develop their own potential budget and revenue solutions.<sup>2</sup>

The white paper and model were introduced and discussed in Fairbanks in a June 2015 weekend conference that included hundreds of participants. The conversation continued over the summer with senior members of the administration presenting the materials in many communities throughout the state.

A big part of the solution is identifying and understanding the problem, and then outlining the potential solutions with their pros and cons and how they interact. The current reality, borne out by the department's fiscal model as well as a model produced by the Legislative Finance Division, shows that there is no "magic solution" to solve Alaska's fiscal crisis. It is going to take several substantial changes working together to solve both the short- and long-term budget imbalance – a policy of shared responsibility built on a four-legged stool, with the four legs consisting of:

1. The government, through continued budgetary restraint and prudent use of savings;
2. The people, through broad-based taxes that also collect from a transient and seasonal workforce;
3. Business and industry, through a fair and stable tax and revenue structure; and
4. The Permanent Fund, through mechanisms that provide revenues for government services while preserving the value and continuing to build Alaska's sovereign wealth savings account.

<sup>1</sup> [http://gov.alaska.gov/Walker\\_media/documents/20150605\\_potential-fiscal-and-revenue-options.pdf](http://gov.alaska.gov/Walker_media/documents/20150605_potential-fiscal-and-revenue-options.pdf).

<sup>2</sup> [http://gov.alaska.gov/Walker\\_media/documents/revenue-and-expenditure-model.xlsm](http://gov.alaska.gov/Walker_media/documents/revenue-and-expenditure-model.xlsm).

# REVENUE SOURCES BOOK

## FORECAST & HISTORICAL DATA

FALL 1989



STATE OF ALASKA  
DEPARTMENT OF REVENUE

### “Free Rides Die Hard”

It is important to recognize that although Alaska’s current fiscal dilemma is severe, it is by no means unprecedented. For as long as our state has been dependent on oil for the bulk of unrestricted revenues, it has been subject to the wide swings of that market.

With the sustained low prices of the late 1980s, just as Alaska production was reaching its peak and beginning its gradual decline, there was a similarly intense need to respond.

The above image is the actual cover of the Department of Revenue’s *Revenue Sources Book* from 26 years ago. In the introductory letter from Commissioner Hugh Malone, he said, “The State of Alaska is standing on a precipice. Only a combination of budget cuts, more efficient programs, and new revenues will keep the State from falling a long way.”

Then, and again several more times during times of declining oil prices, Alaska has faced similar crises. In the past, prices recovered before any major policy changes were enacted, creating in many an expectation that this would always be the case.

This time is likely to be different. Oil production is one-fourth what it was in 1989, the population is larger, and an oil tax system based on net profits makes Alaska’s petroleum revenues even more volatile to price fluctuation. Most analysts believe that global market conditions will keep prices relatively low for years to come. However, Alaska also has many advantages that it did not have in 1989, including a far more diversified economy as well as accumulated savings that are many times what had been accrued.

In addition, discussions around the state have made it clear that the fiscal decisions Alaska’s leaders will be asked to make must address several other critical requirements:

- Actions must have positive impact on the state’s budget gap in the shortest time practicable;
- Actions must thoughtfully define the size and type of government Alaskans want;
- Actions must preserve the economy and keep business investments in-state;
- Actions must meet the test of fundamental fairness, ensuring that no Alaskan bears an undue or untenable burden in light of economic and regional disparities; and
- Alaskans must be included in the process of the far-reaching and consequential decisions required.

This chapter tells the story of how, by listening to Alaskans, a list of potential revenue solutions were considered and compiled. And it is with this spirit of collaboration that a set of options are presented in this chapter to assist in this critically important discussion on *Bridging the Gap Toward a Sustainable Fiscal Future*.

### Toward a Fiscal Strategy

Alaska receives most of its operating revenue from the development of its vast oil wealth. State budgets therefore have historically trended up or down in direct correlation to the global crude oil market. This considerable volatility to state revenues makes the consistent and efficient delivery of public services exceedingly problematic. Planning for responsible government, and simply living within our means,

becomes very difficult to achieve because the state’s means is in a constant state of flux and remains largely unpredictable. The inefficiencies of this boom and bust cycle reach far beyond the provision of public services, and can have a chilling effect on the state’s overall economy and its ability to attract necessary commercial investments over time.

However, due to the wisdom of Alaska’s leaders over the decades, portions of Alaska’s abundant resource wealth have been saved and managed so that today it has become a truly enviable, diversified and stable legacy asset. Alaskans have traditionally shared in the success of this strategic vision through the payment of annual dividend checks, funded by a portion of the income generated by investment earnings. Interestingly, one effect of this is that whereas government services are largely funded with unpredictable and highly volatile revenues, the share of resource wealth received by Alaskans each year comes from a comparatively stable and dependable source.

Because of Alaska’s unique connection to commodity markets and economic development, all Alaskans are invested in the future, since future events will affect all Alaskans. This chapter provides a comprehensive description of choices that are deserving of serious consideration and addresses six major areas integral to a sustainable approach to the fiscal challenge:

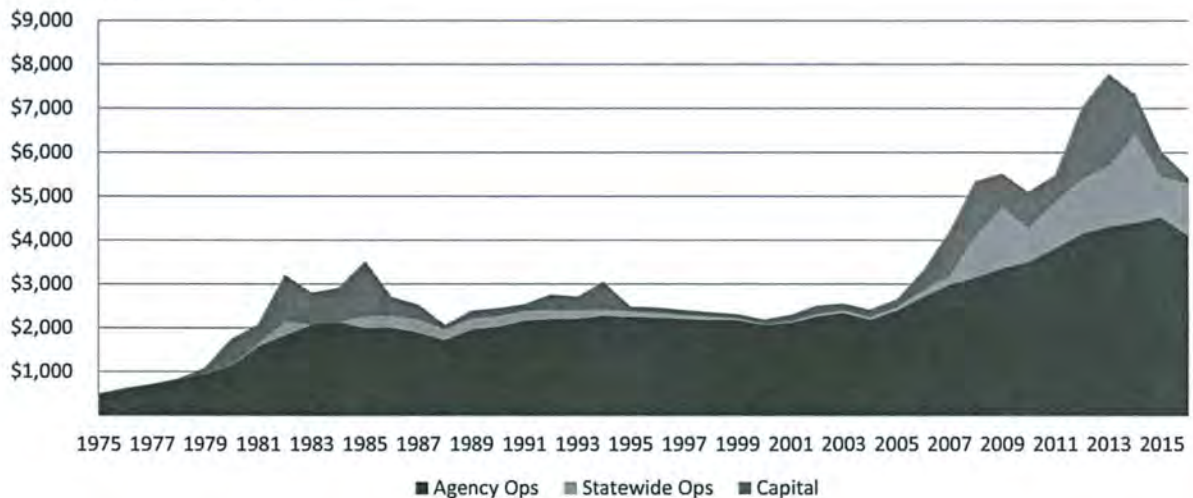
1. Continued Restraint on Spending
2. Options Involving Alaska’s Financial Assets
3. Oil and Gas Taxes
4. Non-Oil and Gas Taxes
5. New Statewide Taxes
6. Non-Tax Measures and Miscellaneous

Chapter 3

**B**

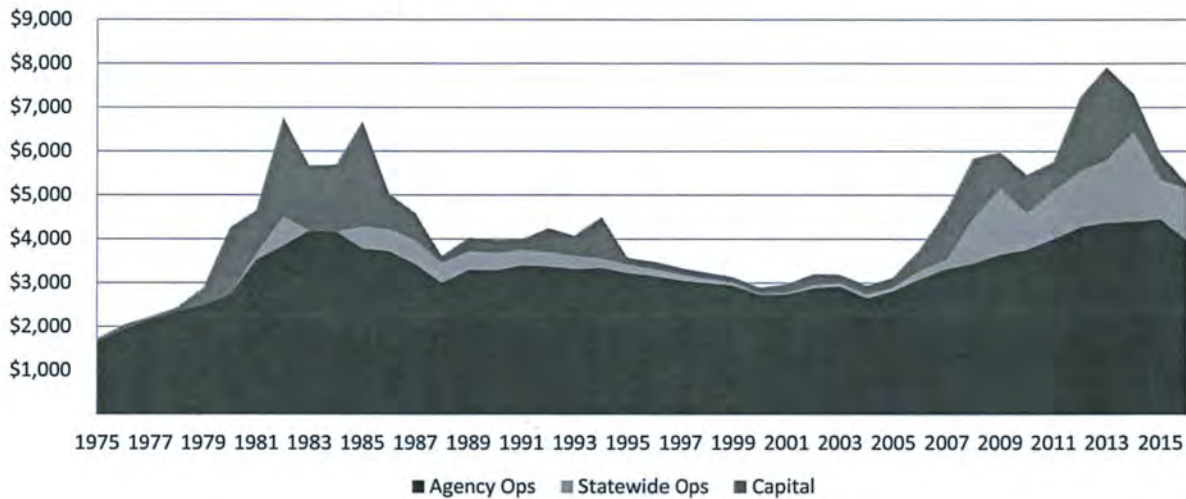
## Nominal State Budget

In millions of dollars



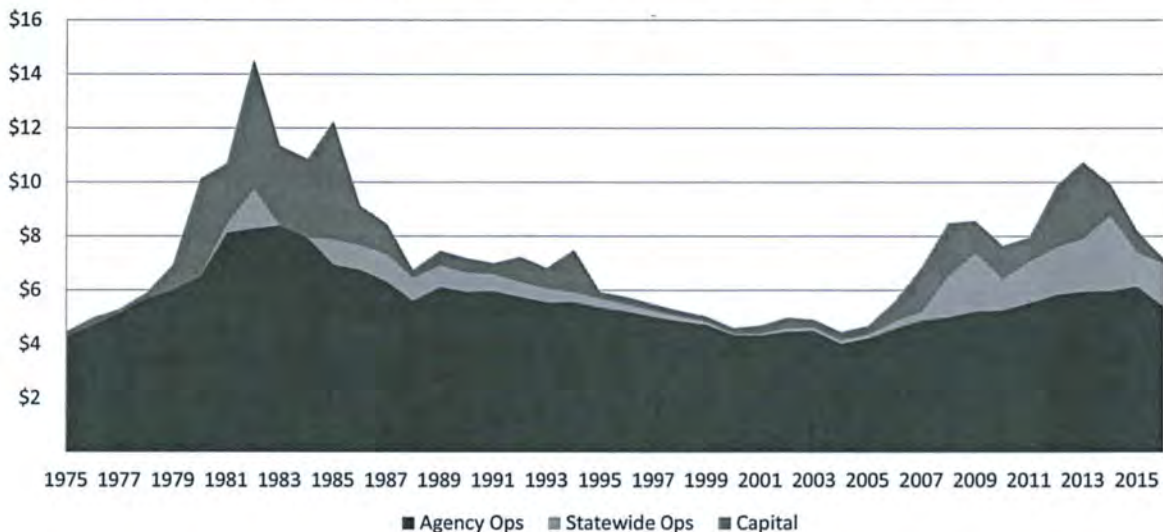
## Real State Budget

In millions of real FY 2014 dollars



## Real State Budget per Person

Adjusted for population, in thousands of real FY 2014 dollars



When the fiscal year (FY) 2015 budget passed in the spring of 2014, the deficit was projected at \$1.1 billion and state savings, traditionally understood as the Constitutional and Statutory Budget Reserves, were expected to be in the range of \$10.5-\$11 billion by the end of FY 2015. However, with the downturn in oil prices, the state faced a FY 2015 budget deficit of \$3.5 billion and state savings of less than \$10 billion with an anticipated FY 2016 deficit of another \$3.2 billion. The clear takeaway is that absent a rebound in oil prices or a restructuring of the state's fiscal regime, there are only three to four years of savings remaining to preserve government services at the current level as well as to finance and complete major projects.

Although reducing the size of government is part of the fiscal solution, the idea that the right size of government is purely a mathematical exercise is fraught with peril. Looking to make our savings last as long as possible is important, but it actually exposes a larger and more important issue: Are we going to remain primarily dependent on oil to fund our government, or are we going to make the transition to the mature and sustainable economy envisioned by visionaries such as Jay Hammond?

In one way or another, Alaska and Alaskans are entering the next era of our history. Oil revenue can no longer independently support the same level of state

government to which Alaskans have become accustomed. The question is, How will Alaska and Alaskans adapt to this new fiscal reality?

## Continued Restraint on Spending

First and foremost, Alaskans have made it clear that the Administration and Legislature must scrutinize all operations and programs necessary to deliver required public services as cost-effectively as possible, and establish a lean spending plan consistent with the desired level of government. To that end, the Administration is working to identify spending reductions along the entire spectrum from small efficiencies in existing operations, to performing the due diligence required for transformational change. Meaningful reductions have already occurred, but continuing this effort will require the time and collaboration necessary to minimize potential unintended consequences that rapid change might bring.

Alaska's budget is generally believed to be larger than it has ever been and is considered by many to be bloated. It is true that in nominal terms, the general fund budget has increased steadily over time and steeply since the mid-2000s.

Figure 3-B makes intuitive sense to people who are familiar with state government spending: the operating budget available to agencies has grown at a relatively even pace, showing a more rapid increase during the "boom" times when oil prices were higher and the state budget was in surplus. Conversely, spending was much flatter from year to year during times when oil prices were lower and the state budget was in deficit. In a similar although more volatile fashion, capital spending has tracked with available revenue, with large spikes during the periods of surplus and significant reductions during reduced revenue years. The third category, statewide operations, presents a different pattern due to its historic concentration in municipal revenue sharing, which was gradually eliminated during the 1990s. Since 2006, spending on statewide operations has grown to record levels due to the reintroduction of revenue sharing, large direct contributions to public retirement systems, and reimbursable tax credits designed to attract increased activity in the oil and gas industry.

Whatever the issues of boom and bust, the general trend in state budgets has been upward. However, present state spending looks somewhat less bloated when adjusted for inflation. As Figure 3-C demonstrates, when adjusted to real dollars the current operating budget only slightly exceeds 1984 levels, having mostly declined for 20 years and then risen again over the past decade. This is important to recognize, as

many believe that the post-2005 operating budget growth was in part making up for a generation of highly constrained public spending. It also reflects growth in the cost of certain core services like health care that have become substantially more expensive, even in real terms, over time.

In analyzing historical spending, it is also critical to understand that many essential government functions, such as education, transportation, and public safety, are influenced by the size of the community they serve. Alaska's population has grown steadily over the past 40 years. It is a testament to Alaska's success and quality of life that many individuals and families have chosen to become Alaskans and make their lives here. However, population growth inevitably increases the cost of providing many public services.

Adjusting for population growth, and presenting the cost of government in terms of inflation-adjusted per-capita spending rather than in terms of total nominal spending, the picture changes dramatically, as shown in Figure 3-D.

Everyone agrees that meaningful budget reductions are a requirement of fiscal sustainability and that reductions must include both targeted cuts as well as across the board spending restraint. Cuts must be sustainable, for example not burdening future budgets with deferred maintenance. In addition the level and timing of cuts must be sensitive to the fragile economic condition of the state and not become a catalyst to recession.

## Options Involving Alaska's Financial Assets

Alaska's options are unfortunately fewer than they were just a year ago. The drawdown of the Constitutional Budget Reserve Fund puts in place a cycle of annual "sweeps" that will, unless reversed by a three-quarters vote in both the House of Representatives and the Senate, move all sub-funds of the general fund into the CBRF until the debt is repaid. In addition, in March 2015 the Treasury Division liquidated the so-called "sub-account" of the CBRF that had been invested since 2007 in a more aggressive portfolio. Sub-account earnings approached \$1 billion in its best years, but fund managers are required under statute to maintain assets in a relatively risk-free portfolio in order to preserve value to meet the next five years of expected need. With expected large deficits depleting the CBRF in less than five years, it means that the entire CBRF, worth roughly \$10 billion at the beginning of FY 2016, is statutorily required to be held in relatively risk-free investments. This has

significantly reduced the potential state investment earnings from the CBRF.

### **Options Involving Pension Obligation Bonds, Public Employees' and Teachers' Retirement System (PERS/TRS)**

One significant component of the operating budget is the state's ongoing contributions to address unfunded liability in the Public Employees' and Teachers' retirement systems. Using existing statutory authority the state could issue pension obligation bonds, which involves borrowing money backed by legislative appropriation and depositing the money in the PERS and/or TRS trusts to reduce the unfunded liability. The theory is that earnings from the investments should be greater than the cost of the debt service, thereby reducing and stabilizing the long term annual cost to the state treasury.

Historically this represents something of a lost opportunity. Pension obligation bonds were authorized in 2008 by House Bill 13, but have never been used. At the time, the bill was considered a companion to Senate Bill 125, which set up the system by which Alaska contributes additional hundreds of millions to the statewide public employee pension system. Analysts believe that had Alaska gone through with the pension bonds, it could have achieved an additional several billion dollars in investment earnings thereby reducing the long-term shortfalls in the state pension accounts.

Unfortunately, implementing the strategy today may expose the funds to significant additional risk at a time when equity markets are near all-time highs and many observers are projecting that future market returns will be below historic norms.

### **Options Involving the Permanent Fund**

During the 2014 legislative budget debates, it was understood that Alaska would be facing moderate-sized budget deficits for the next several years. Modeling in early 2014 showed that the non-Permanent Fund savings could support the expected deficits until natural gas was expected to begin flowing through the Alaska LNG pipeline in approximately 2024. Those savings peaked in 2013 at around \$18 billion. At the same time, the mid-level estimate of the Alaska Permanent Fund Corporation projected the fund would be worth \$78 billion in 2024, a substantially greater increase in value than the cumulative budget shortfalls (i.e. reductions in savings) over that same time period. It was only later in 2014 when oil prices dropped dramatically that projected deficits exploded.

These facts looked at together lead to three conclusions. First, non-Permanent Fund savings are

expected to decline rapidly in the next several years. Second, the Permanent Fund is expected to continue to grow, possibly at a rate greater than the depletion rate of non-Permanent Fund savings. And third, even if the Alaska LNG project proceeds along at the planned schedule, the state will likely need some sort of additional funding source before the gas project is complete.

Alaska's Permanent Fund earns billions of dollars per year; often it is Alaska's single-largest source of revenue. The realized portion of this revenue, while available for appropriation per statute, has historically been considered untouchable. With oil prices projected to remain low over the next four years, it is clear that serious revenue discussions must consider the prudent use of Permanent Fund earnings as a part of any long-term fiscal planning.

The Permanent Fund has become in many ways the third rail of Alaska politics, in large part because Alaskans are accustomed to – and in some cases dependent on – the annual dividend program. Any effort to change the way the Permanent Fund is used will open a debate over its essential purpose and the original intent of its creators. Most simply put, the two primary schools of thought define the Permanent Fund as:

1. A sovereign wealth fund to create a sustainable source of public revenue for a time in the future when the oil is diminished or gone, or
2. A fund dedicated to the direct and immediate sharing of Alaska's common resource wealth with its people.

It is highly likely that the sides of this debate are irreconcilable, and it's possible that neither is entirely correct. The one thing that can be definitively taken from the early debates is that the fund was intended to be:

3. A mechanism to keep a portion of the state's current-year revenue out of the hands of the Legislature so that it wasn't spent as fast as it came in. Ultimately this delayed the conversation about the Permanent Fund's role in the state's long-term fiscal planning.

In considering the use of the Permanent Fund in helping to reduce the current fiscal gap, it is important to remember that today's Permanent Fund is substantially different, both in its actual size as well as its relative size compared to the rest of the economy. During the post-pipeline crash of 1986, the Permanent Fund was worth only about \$6 billion, not nearly enough to generate a sustainable, renewable source of income. In 1999, when the voters were asked to weigh in on the possibility of using it for government operations,

it was worth \$26 billion. As of November 2015, the fund is worth over \$52 billion.<sup>3</sup>

There are a number of potential options for use of the Permanent Fund in providing government funding:

#### Conversion of Permanent Fund to Endowment Model

The bigger the Permanent Fund becomes, the more unwieldy it becomes to manage the fund using the current “principal / earnings reserve” structure. Many have assumed that the Permanent Fund will eventually be converted to and managed as an endowment system similar to a private university. This model, with annual payments based on overall fund value rather than short-term performance, is considered a best practice for management of endowment funds and has been recommended by the Permanent Fund Board of Trustees. In this model, every year a specified percentage of the total fund value would be diverted for public purposes. The percentage could be directed to dividends, to support government operations, or some combination of the two.

The percentage withdrawn annually would be based on the expected long-term average annual earnings minus the amount needed to inflation-proof the principal. Managed in this way the Permanent Fund’s principal is protected and continues to grow through the addition of new deposits as well as investment earnings in excess of the withdrawal.

Most recent discussions have assumed an annual payout of about 5%, based on long-term earnings estimates of 8% minus 3% for inflation proofing. To further protect the principal, most proposed endowment models have used the average of the value for several prior years as the basis for calculating the allowable withdrawal.

As a simplified example, \$50 billion with 8% annual return would generate \$4 billion in annual income. But if inflation were 3%, then \$1.5 billion would be needed to inflation-proof the principal. Therefore the annual payout could be set at 5%, making \$2.5 billion available. If every Alaskan received a \$2,000 dividend, approximately \$1.4 billion would go to pay dividends leaving \$1.1 billion available for government operations. The next year, the fund would have \$51.5 billion to start with, in addition to all new deposits from royalty revenue.

#### Permanent Fund as a part of a Sovereign Wealth Plan

A Sovereign Wealth Plan introduced in October 2015 seeks to provide long-term fiscal stability and

<sup>3</sup> Source: Alaska Permanent Fund Corporation, <http://www.apfc.org/home/Content/home/index.cfm>.

spending discipline. This goal however, will require a fundamental shift in the way Alaskans think about the state’s fiscal structure. It will essentially require “re-plumbing” the flow of funds throughout the state’s fiscal structure. It will also require a shift in how the state thinks about the Alaska dividend program.

The current dividend program is largely seen as Alaskan’s share of the state’s resource wealth. Yet the existing dividend program is largely decoupled from actual resource development in the state, and is instead tied to the performance of global equity markets. This plan would shift the funding source for the dividend program to the state’s resource revenue by indexing it to annual receipts. If resource development and associated revenues to the state increase, dividends go up. If nothing is done to further develop the state’s resources and existing developments decline, dividends go down. This will directly engage Alaskans in the critical discussions necessary to the state’s future, while initially providing dividends in the range Alaskans have seen in the recent past.

Implementing this concept will involve statutory changes that redirect annual oil and gas revenues directly into the Permanent Fund, except for that portion needed to fund the dividend program. The Permanent Fund would then grow with the addition of this new capital to the corpus, in addition to the growth it would have otherwise experienced as a result of ongoing investment earnings. As in the past, the earnings of the Permanent Fund each year will flow into the Earnings Reserve. As a result of the Earnings Reserve being relieved of the requirement to fund the dividend program, a fixed and sustainable draw (adjusted for inflation) can be pulled from the Earnings Reserve and deposited into the unrestricted general fund to pay some of the cost of operating state government.

This switch in approach would transfer the volatility of annual revenue from the general fund to the Permanent Fund, as well as potentially increasing the fund’s value over time and producing a new sustainable revenue source.

See the box on the next page for details on the proposed sovereign wealth approach.

#### Dividend Restraint

In 2014, as a result of the market crash of late 2008 falling off the five-year average used in calculating dividends, the dividend more than doubled from the \$900 paid in 2013 to \$1,884. In 2015, Alaskans had the second consecutive dividend well in excess of the historic average. Looking ahead, and using the Alaska Permanent Fund Corporation’s midpoint projections,

one could easily envision dividends staying above \$2,000 for many years to come. If, however, instead of paying the entire amount in dividends, the dividend was limited to something near the historic average, it would make available about \$750 million for government funding. Depending on the desired “split” between what portion of earnings should be dedicated to dividends versus other state needs, many potential solutions could be constructed to restrain the size of the dividend.

#### Diversion of Earnings Reserve

Although a politically difficult solution, the entirety of the Permanent Fund’s Earnings Reserve, currently about \$7 billion, is available to be appropriated for government spending by the Legislature by simple majority vote. This potentially could add two or more years of budget flexibility before a comprehensive long-term solution would need to be reached. However, spending out of the Earnings Reserve would also reduce the “cushion” and potentially impact the ability to use funds for any purpose, including dividends, if investment losses are realized in a down market.

#### Diversion of Surplus Royalties

Per the Alaska Constitution, 25% of mineral royalties are deposited into the Permanent Fund. However, by statute this increases to 50% of royalties from leases signed after December 1, 1979. A bill passed in 2003 temporarily reduced the royalty deposit for these newer leases to the constitutional 25% level. The provision sunset automatically once the impact on each person’s dividend reached \$20, which occurred in 2008. Over the four years this bill was in effect, nearly \$550 million was diverted to the general fund. Based on current price and production, reinstating this change would add about \$40 million to \$70 million per year to the general fund.

#### Endowment with Changes to Payout Mechanism

A modified annual endowment payout option was introduced as Senate Bill 114 at the end of the 2015 legislative session. Instead of splitting the allowable withdrawal between the dividend and the general fund, it would divert the entire amount to the general fund. Simultaneously, the dividend itself would be funded by the 74.5% of royalty and other lease income that is not already constitutionally diverted to the Permanent Fund principal and the Public School Trust Fund. Currently, most of that portion of royalty income goes to the general fund.

This approach would tie the dividend more closely to Alaska’s current oil production as well as to the price of oil. Based on current projections, the change

### **Implementing a Sovereign Wealth Plan for Alaska**

A sovereign wealth framework could be added by a statute change without a constitutional change.

The implementation requires:

1. Deposit volatile resource revenue (100% of petroleum production tax revenue, 50% of petroleum royalties, and 100% of royalties from other resources) into the Permanent Fund.
2. Fund the state’s annual appropriations allowance through a fixed draw from the Earnings Reserve to the general fund, providing a stable and sustainable revenue flow.
3. Distribute an annual royalty dividend to Alaskans. The dividend is funded directly from royalties, rather than from the earnings reserve of the Permanent Fund. Current discussions contemplate including 50% of all resource royalties in the dividend.

in royalty treatment would divert about \$800 million from the general fund to the dividend. By simultaneously appropriating the Permanent Fund endowment payout into the general fund, the Legislature would replace the royalty diversion with about \$2.5 billion of general fund revenue, making additional funds available for the budget.

### **Oil and Gas Taxes**

In looking at available options for increasing oil and gas tax revenue, it is necessary to understand the underlying structure of the oil and gas tax system now in place. The basic concepts underlying that structure are: reduced progressivity that is not punitive at high prices, credits that reward production instead of spending, and specific benefits for new oil production. The following are several approaches that have been proposed that would increase state revenue or reduce certain expenditures. Some would be more relevant at lower prices and some at high. These include:

#### **Minimum Tax Changes**

Modifying and strengthening the minimum tax would add revenue protection for the state at low oil prices. Based on modeling done in the Tax Division, each increase of 1% to the minimum tax would generate \$50-75 million in annual revenue at prices between \$50 and \$80 per barrel. However, at lower prices,

there is limited potential to extract additional revenue and higher minimum taxes could result in some producers experiencing operating losses.

### **Modify Per-Barrel Credits**

The per-taxable-barrel credit currently works inversely to the price of oil, providing the largest benefit at low prices. However, it is a “use it or lose it” credit that cannot be refunded or carried forward. Therefore, at low prices the bulk of this credit ends up foregone due to the impact of the minimum tax. Various proposals would reduce this credit either across the board or specifically at low prices. In the current price environment modifying the per-barrel credits would have limited revenue impacts, with the greatest fiscal impact likely to be seen in the price range of \$80-\$110 per barrel.

### **Modify New Oil Provisions**

The Gross Value Reduction (GVR) provisions, which provide benefits for new oil, are calculated as a percentage of gross value but effectively create an offset against taxable net profits. A 20% “gross value reduction” can in this way reduce a taxpayer’s liability by 40% or more. In current law, GVR benefits, once earned, remain attached to a particular field or project indefinitely. A mechanism to minimize the long-term impacts of GVR provisions while still allowing for the recapture of the costs associated with new field development would be to sunset the GVR after a specified number of years. This would prevent the gradual trend toward higher shares of production receiving the benefit. Other GVR proposals include reducing the rate from 20% to 10%, or excluding certain fields from being counted as “new oil.”

### **Interest Rate Changes**

One of the changes in SB21 reduced the interest rate for delinquent or audit-assessed taxes from 11% to a floating number that currently results in an interest rate of 3.75%. In addition, a late technical amendment changed the formula, many believe inadvertently, so that the 3.75% is only collected on the initial value and does not compound. These changes apply to most taxes, including non-oil taxes, for periods after Jan. 1, 2014.

As Alaska considers using its accrued assets as a source of ongoing funding, it is necessary to think of money that would have been earned on underpaid taxes more like an “opportunity cost.” If the interest rates were restored to market levels, representing what would have been earned had the taxes been received timely, and allowed to compound it could

eventually add \$10 million to \$25 million in annual revenue.

### **Reform Refundable Oil and Gas Credits**

Refundable oil and gas credits remain a significant cost to the general fund as the North Slope and Cook Inlet continue to see exploration and development of additional fields. The system is set up to reimburse a portion of the costs of development (in the years before a field has production and thus taxable income) with cash rebates.

Alaska’s credit regime was initially set up so that credits would be used against tax liability or transferred to taxpayers in an open market. Only later did state repurchase become the norm. A cap on annual repurchase could help the state’s cash flow in low-revenue years, though this would be offset when the state eventually has to pay out the credits in high-revenue years. However, a cap would have to be carefully constructed to minimize the impact on explorers, some of whom would have to wait to monetize credits or sell them at a discount to producers who would apply them against their own taxes. In this scenario, the state’s net fiscal impact would be unchanged, but a portion of the benefit of the credit could shift from the explorers to the major taxpaying producers.

As an alternative, there is already some movement toward using the Alaska Industrial Development and Export Authority (AIDEA) as a development bank for drill rigs, processing, and other support facilities. This could be done to provide up-front financing, potentially saving start-up companies the very high interest rates many of them are currently paying. In addition, there has been some initial discussion of transforming parts of Alaska’s credit system into a direct investment model, where the state’s contribution would be used in exchange for an equity share of projects.

### **Reform Cook Inlet Taxes**

Until 2022, Cook Inlet oil and gas production is taxed at a rate tied to the old ELF rates that were in place in 2006. Oil production is locked into a tax rate of zero, and gas is taxed at a rate that varies from field to field but averages about 17 cents per thousand cubic feet (mcf). Meanwhile, producers in Cook Inlet are still eligible for many reimbursable credits that result in below-zero taxation.

If Cook Inlet were converted to a tax structure similar to SB21 (regardless of whether the tax cap was removed), the reimbursable credits would be limited to the Carried-Forward Annual Loss credit. Eliminating the 20% capital credit and the 40% well lease

expenditure credits is estimated to reduce the state's reimbursable credit liability by at least \$150 million per year.

### Restore Progressivity at Higher Prices

Alaska's current North Slope oil and gas production tax is a flat rate at all price points, against which certain credits can be applied. One or more tax brackets could be added to restore a degree of progressivity at higher prices. For example, it would be possible to add a single bracket where only those profits (production tax value) of greater than \$60 per barrel would be subject to an additional 10% on top of the 35% base tax. This change would have zero impact at prices below about \$110, but would raise roughly \$1 billion in additional revenue if oil reached \$150 per barrel.

### Separate Accounting

For several years in the late 1970s, Alaska's corporate income tax for oil and gas companies used a separate accounting method, meaning that Alaska-specific revenues and costs were used as the basis for the tax. This was in contrast to the apportionment formulas used in the tax for other corporations. Analysis done by the Department of Revenue indicated that the effective tax difference between the systems was somewhat less than it was in the past, due to the changes in the asset base in Alaska as well as declining production. However, had separate accounting been in effect from 2007-2013, the largest oil and gas corporations in Alaska would have paid approximately \$220 million more per year in corporate income taxes.

### Gas Reserves Tax

A natural gas reserves tax was first proposed in a 2006 ballot initiative, which would have raised \$1 billion per year via a tax of 3 cents per mcf on large proven reserves. In the initiative, the tax would have been refundable over time as a credit against production taxes once commercial operations began.

The precedent for a reserves tax comes from 1975-77 during the last years of TAPS construction. At this time the Legislature imposed a reserves tax on oil to help fund ongoing government operations prior to the completion of the pipeline. The taxes were credited back to industry in the early years of North Slope oil production.

A gas reserves tax modeled on the 1975 law was initially proposed for the October 2015 special session, but was rescinded after the Administration secured assurances from the producers that they would com-

mit their share of gas should they withdraw from the Alaska LNG project.

## Non-Oil and Gas Taxes

Alaska has a Corporate Income Tax for non-oil and gas companies, as well as a substantial group of smaller, primarily excise and "sin" taxes that have not historically been considered major components of the overall revenue picture. In aggregate, these generate much of Alaska's roughly \$500 million in annual "non-oil and gas" revenue. This \$500 million has accounted for 10% or less of unrestricted general fund revenue over most recent years, but because they are less volatile than oil and gas taxes, they are projected to contribute close to 25% of available revenues in FY 2016.

Excise taxes must therefore be part of any comprehensive revenue discussion. The last time Alaska looked seriously at new revenue options, in the early 2000s, it was excise taxes where actual changes were made. These changes included a doubling of alcoholic beverage taxes in 2002, with an associated diversion of half of revenues to programs benefiting individuals with alcohol problems. Also during this time period, large increases were made to tobacco taxes and new taxes were implemented on vehicle rentals and certain tires.

Although there have been several tax changes made by voter initiative (the cruise ship head tax and gambling tax; and the marijuana excise tax), there were no legislative-passed tax increases other than changes to the oil and gas production tax system between 2005 and 2014. In the 2015 regular session, the legislature passed a surcharge of less than 1 cent per gallon on certain refined fuels to fund the Spill Prevention and Response Division at the Department of Environmental Conservation. This \$7.5 million revenue item was the first new or increased non-oil-production tax passed by the Legislature in 10 years.

A discussion of various options follows. References to specific revenue numbers comes from the Tax Division's *2014 Annual Report*:

### Increases to Existing Taxes

#### Alcohol Taxes

The alcohol tax is collected from wholesale distributors and is a per-gallon tax with four levels based on different products: distilled spirits, wine, beer, and beer from small craft breweries. In general (with the exception of the small breweries), the tax rates are set to be roughly equal to 10 cents per portion and

are the second highest rates in the U.S. This excludes the 17 states where government directly controls the sales of distilled spirits, effectively building their taxes into the price.

Total annual revenue from alcohol taxes is about \$40 million. The most recent change was in 2002, when rates were roughly doubled. At that time, 50% of revenue was diverted to programs that support individuals with alcohol or drug abuse problems. Currently, about \$20 million of Alaska's alcohol tax revenue supports programs in the mental health budget.

The Department of Revenue estimates that each 10% rise across the board in alcohol taxes would raise about \$4 million in annual revenue.

### Fisheries Taxes

The state collected \$64.2 million between the Fisheries Business Tax and the Fishery Resource Landing Tax in FY 2014. However, \$32 million of these were shared with municipalities, leaving \$32.2 million for the state. Tax rates for fisheries range from 1% to 5% of gross value, with 3% being the most common rate. In addition, there are several special purpose taxes on fisheries that are dedicated to specific functions.

Per current statutes, any tax increase would be similarly shared with municipalities. Given this, to achieve the equivalent of a one percentage point increase in state revenue, either the actual rates would have to be increased by 2% or the tax would have to be structured as a state-only surtax that would not be shared. A 1% across-the-board increase in general purpose fish taxes is estimated to raise an additional \$19 million per year.

### Mining Taxes

The current mining license tax rates are between 3% and 7% of net income with the first \$40,000 exempted. The first 3.5 years of income after production begins for a new mine are also exempt. In 2012, legislation removed sand and gravel from the definition of "mining," effectively exempting these operations as well. The Department of Revenue estimates that if mining tax rates were raised 1% across the board, revenue would increase by about \$6 million. Another option would be to switch from a "net" to a "gross" value calculation, or to simply reduce the minimum tax threshold.

### Motor Fuel Taxes

Alaska's four motor fuel taxes (highway, marine, jet, and general aviation) together raise about \$40 million per year. At 8 cents per gallon, our highway fuel tax

is the lowest in the country. The taxes on the other three fuel types (marine, jet, and general aviation) are even lower. Together, about 650 million gallons of fuel are taxed in Alaska per year. A larger amount, nearly 1 billion gallons, is untaxed due to federal constitutional issues as well as various exceptions in state law. The Department of Revenue estimates that a 1-cent across-the-board increase would generate \$6.5 million a year.

### Tobacco Taxes

At \$2.00 per pack, Alaska's cigarette tax is the 10th highest in the U.S. The tax on other tobacco products is 75% of the wholesale price. Together these raised \$57 million in FY 2014. About \$24 million was diverted into school funds and a special Tobacco Use Cessation and Education Fund, leaving \$43 million for the general fund.

A 50% cigarette tax increase, to \$3.00 per pack, would raise an additional estimated \$23 million/ per year. A 33% increase in the other tobacco tax rate, to 100% of wholesale value, would raise another \$4 million.

There is also a major loophole in the current statutes, as so-called "electronic cigarettes" are currently not subject to the tax. Since e-cigarettes do not fit within the current definition of taxable products, and since the nicotine in many types is not derived from tobacco, it would require specific legislation to extend the current tobacco tax to this growing industry. Many states have recently updated their tobacco statutes to incorporate e-cigarettes.

### Tourism Taxes

Alaska currently collects \$34.50 per passenger via the cruise ship head tax, although in most cases \$15 is credited back to the taxpayer due to head taxes paid to other jurisdictions, and most of the rest is shared by formula with port communities. The net effect is that only about \$2 million per year flows to the state and is restricted for certain purposes related to the tourism industry. Each \$1 per passenger increase in the head tax would increase revenue by about \$1 million. Alternatively, eliminating the credit for taxes paid to municipalities would raise about \$15 million.

## **New or Revived Taxes**

### Health Care Provider Tax

Alaska is currently the only state in the U.S. that does not levy a health care provider tax. This tax is levied on hospitals, doctors and other health care providers and the revenue is generally used to pay for the state's share of Medicaid. It allows states to claim a larger

share of federal Medicaid funds which can be used to increase provider reimbursement rates, making it easier for Medicaid recipients to find a provider. In Alaska, the federal government pays \$1.42 for every dollar the state spends on Medicaid. This means that a new health provider tax could generate \$2.42 in total Medicaid spending for every dollar it raises. Hospitals tend to support these taxes if carefully crafted, because the increased reimbursement rate more than pays for the tax.

A Vermont study estimated that a 1% tax on providers could raise about \$8.3 million per year. Adjusting this to Alaska's population, we estimate that a similar tax could raise about \$9.5 million in Alaska. Most states with provider taxes have rates between 3%-6% (the federal government holds states harmless for taxes up to a 6% rate, effectively capping the tax at 6%). A 6% provider tax in Alaska would raise about \$57 million, leveraging about \$80.9 million in added federal matching funds, for a total potentially increase of \$137.9 million in Medicaid funding in the state.

### Business License Tax

The Business License Tax (AS 43.70), was originally passed in 1949. It consisted of a \$25 license fee plus a graduated tax on a business' gross receipts: zero on the first \$20,000, 0.5% of the amount between \$20,000 and \$50,000, plus 0.25% of the amount over \$50,000. After it was repealed in 1979, the licensing authority was transferred to the Department of Commerce and Economic Development. Currently the business license is an annual flat fee of \$50. A revived business license tax could be an alternative mechanism to reach the revenues of "pass through entities" like S-corporations and partnerships, which do not pay the state's corporate income tax. The other primary way to reach these companies would be via the personal income tax.

In other states, this sort of tax is called a "Gross Receipts Tax" or sometimes a "Commercial Activity Tax." Preliminary modeling indicates that restoring this tax at the historic levels would raise about \$60 million per year.

## **New Statewide Taxes**

Alaska earned statehood on the idea that it would be self-sustaining on revenues it could earn from resource development. To date Alaska has used the revenues from a single resource, the oil fields on the North Slope, to support nearly the entirety of state government as well as to keep taxes low on all other industries and to subsidize and attract others. As the state seeks to further grow and diversify its economy, broad-based statewide taxes may be necessary to

link economic growth and the revenues necessary to support that growth.

## **Income Taxes**

Approximately 43 states currently collect a tax on individual and family income. Alaska had an income tax for many years, although it was repealed in 1981 at the height of the Prudhoe Bay oil boom. Income taxes are broad-based, touching nearly everyone in the state. They could also have the advantage of taxing income earned in Alaska by nonresidents.

### Income Tax – Traditional

The most straightforward way to implement an income tax would be to piggyback on the federal tax return. The tax could be based on either a percentage of adjusted gross income (AGI), or as a percentage of federal tax liability. The difference is one of emphasis and progressivity: since the federal system is relatively progressive, a tax based on a straight percentage of federal liability would provide the identical level of progressivity to that embedded in the federal system. In contrast, basing a system on AGI could provide a more "flat" tax that would impact all income levels at a similar level rate. Some states use AGI but provide some form of state progressivity via tax brackets for different income levels.

Based on the Department of Revenue's income tax model, for each 1% of federal tax liability, about \$35 million would be raised in 2016 with gradual increases changes thereafter based on growth and inflation in the underlying economy. A tax based on adjusted gross income would raise about \$220 million per 1%. A 1% tax on AGI that exempted the first \$25,000 of income (\$50,000 for joint filers) would raise about \$125 million. Taxing the Alaska income of out-of-state workers would increase either of these by about 10%.

For those Alaskans who itemize, state income tax payments would be deductible from federal income taxes.

### Income Tax – Capital Gains Surtax

Some states have implemented separate capital gains taxes, based again on the federal tax return. Currently, federal capital gains are taxed at only 15%, whereas the top marginal tax rate on regular income is nearly 40%. A capital gains surtax adds another element of progressivity and helps reach income that many feel is currently undertaxed. Based on the Department of Revenue's income tax model, a 10% capital gains surtax would raise about \$85 million per year.

## Income Tax – Out-of-State Partnership Income

There is ongoing concern with the fairness of Alaska's state Corporate Income Tax (CIT), which is limited to taxing the income of traditional corporations but has no mechanism to tax subchapter S-corporations ("S-corps").

Receiving revenue from S-corps isn't just a simple legislative change. By the nature of S-corps, they don't actually retain their earnings. Instead, earnings are passed through and treated as income by their owners, using the same distribution method (federal schedule K-1) as some partnerships and limited liability companies (LLCs).

Therefore, Alaska would need to tax the income of S-corps operating in Alaska directly. Alternatively, a state personal income tax could be written to tax the income from partnership, S-corp, LLC, and sole proprietor distributions. The most recent Department of Revenue study, in 2001, estimated that taxing S-corps could generate \$29 million in annual revenue. Because of the growth in non-traditional corporate businesses in Alaska, a revised estimate would likely be substantially greater.

## **Other Statewide Taxes**

### Payroll Tax / Former School Tax

For many years until it was repealed in 1980, Alaska had a small, flat rate payroll tax whose revenue was directed to schools. A payroll tax could be applied against each worker's first two paychecks, which would effectively capture the income of seasonal workers and workers who live out of state who would pay the full tax even if they only worked in Alaska for part of the year. Restoring this tax at a flat \$100 per employee would raise about \$40 million/year. This number could be increased if the tax were scaled to income level. A stair-step tax with a maximum levy of \$500 per person could be structured to raise about \$100 million per year.

### Pay-as-You-Go Tax

Many countries have a simple form of income tax which is withheld and paid by the employer. The tax is similar to the payroll tax discussed above but is withheld from every paycheck. It is similar to how the state's current unemployment insurance tax is collected. At the end of the year the individual receives a letter from the taxing authority stating how much they paid in tax, but there is no return to file. A pay-as-you-go tax would require far fewer resources to administer than a traditional income tax. However, the downsides are that the tax is not progressive, it is

difficult to tax the self-employed, and it does not tax unearned income, business income, or capital gains.

### Sales Tax

Of Alaska's 164 incorporated municipalities, 107 currently collect a sales tax, ranging from 1% to 7%. Some of these municipalities have expressed concern over the impacts of adding a state sales tax on top of their existing taxes. Conversely, some smaller jurisdictions lacking the resources to implement an independent sales tax have expressed interest in piggybacking a local sales tax onto a statewide sales tax.

Each statewide sales tax of 1% would raise an estimated \$140 million. If food were exempted, which is done in 39 states, it would reduce the revenue to \$120 million. In a state with widely varying costs of living such as Alaska, one major concern with a statewide sales tax would be that it would be quite regressive. This is because it would place a disproportionate share of the burden of revenue on high-cost communities, especially in rural Alaska.

### State Property Tax

The total value of property assessed in Alaska by municipal governments that collect property taxes is \$108.6 billion, including oil and gas property. A statewide 10 mil (1%) tax, if applied to this assessed property would therefore generate a little over \$1 billion. A state property tax already exists for oil and gas property; exempting this would reduce the revenue from a 10 mil tax to about \$800 million per year.

Implementing a statewide property tax would be relatively simple in the incorporated areas that currently assess real and personal property. However, since many areas of the state are outside the jurisdiction of municipal governments that collect property taxes, it is difficult or impossible to know the true value of all property. Data on property ownership and value would have to be developed before the tax could truly be collected statewide.

## **Non-Tax Measures and Miscellaneous**

Various other proposals have been suggested as a way of reducing the fiscal shortfall. Several are listed here.

### Capital Re-Appropriation

There are substantial prior years' capital appropriations, many of which cover only a fraction of a project's eventual cost. Many of these funds are not yet

encumbered, and may not be fully funded for several years in the current budget environment. There has been some discussion of targeted re-appropriation (cancellation) of this funding.

The FY 2016 capital budget began this process, pulling back the unspent balances from dozens of projects. A portion of the freed-up funds were then reallocated to new projects, so as to reduce the need for the appropriation of additional general funds.

#### Indirect Expenditures

The 2014 Indirect Expenditure report documented a large number of tax exemptions, credits, and other tax avoidance mechanisms imbedded in the current statutes. These range in annual cost from just a few hundred dollars to hundreds of thousands and more. A comprehensive program to eliminate these items could, in the aggregate, save the state several million dollars per year.

#### Lottery

While it was once the norm, Alaska is now in the minority of states by not having a state lottery. Generally, a state-sponsored entity oversees the lottery with sales made at private retail locations. After payouts, retailer commissions, marketing, and operational expenses, every lottery in the U.S. was profitable in the 2013 fiscal year. Lottery income in FY 2013 varied from \$8.3 million in North Dakota to \$3.1 billion in New York. On a per capita basis, income ranged from \$11.5 per capita in Montana to \$360.4 per person in Rhode Island.

An Alaska lottery would probably offer games that fit into one or more of three categories:

- Instant (scratch-off) ticket lotteries: Similar to those currently used in Alaska's charitable gaming pull tab activities.
- Numbers lotteries: Players pick from a set of numbers, and win if they match the numbers picked in an official drawing. Often, these are pooled among multiple states, creating much larger jackpots.
- Video lotteries: Electronic games with instant payout using a "video lottery terminal" (VLT), similar to a slot machine.

To estimate how much revenue an Alaska lottery could bring in, the Department of Revenue looked at statistics from the 10 lowest population states. We looked closely at Wyoming, the most recent entrant into the lottery market which expects to earn \$13

million to \$17 million in its first year of operation. It opened in August 2014 with Powerball and Mega Millions and is adding two Wyoming-specific games in 2015.

Preliminary estimates are that Alaska could generate around \$8 million per year at first. However, an expansion of gaming through any sort of lottery, while beneficial to state revenue, would almost certainly have some negative impact on current state-regulated charitable gaming activities such as pull tabs and raffles. These current activities support numerous nonprofits in the state and any changes would likely be opposed by the entities that benefit from the current system.

### **Conclusions: Toward a Sustainable Fiscal Framework**

Implementation of some combination of the options listed in this chapter could help address the majority of the State's fiscal gap. Any amount not closed during this process would necessarily require the use of savings. However, even if savings are required, any potential draw would be significantly less than it would have otherwise been if no action were taken.

As Alaska moves forward, our common interest must be to strengthen Alaska's future and enable opportunity for all Alaskans. This requires a balanced and measured path to fiscal stability. Most importantly, the state should enable itself to continue meeting its obligations to protect the safety and health of Alaskans; to provide quality education and employment opportunities in a growing and more diverse economy; and to ensure that transportation, community and development infrastructure needs are met.

The future of our great state is in our hands. The time for bold and decisive action is now.



# Chapter 4

## Petroleum Revenue

### General Discussion

The four sources of state revenue from oil and gas production are severance tax, royalties, property tax, and corporate income tax. Severance tax (often referred to as a production tax) is imposed on a producer when the resource is severed (or extracted) from the leased land. Royalties are payments to the owners of the land and represent a percentage of production. Property tax is collected as a percentage of the value of the oil and gas property. Corporate income tax is levied on oil and gas C-corporations as a percentage of their worldwide net income apportioned to Alaska.

As shown in Figure 4-A, revenue from petroleum accounted for 28% of total revenue in FY 2015 with 72% being unrestricted and 28% being restricted. Most of the revenue from production tax is unrestricted and goes into the general fund for the Alaska Legislature to appropriate for general operations and capital improvements. A portion of royalty revenue is placed into funds that are restricted. The Public School Trust Fund receives 0.5% of royalty revenue. The Alaska

Constitution requires that 25% of royalty revenue be deposited into the Permanent Fund, however, AS 37.13.010(a) requires that 50% of royalty revenue from certain mineral leases be deposited into the Permanent Fund. Roughly 30% of royalty revenue, which represents a weighted average of the contributions from the various leases, is deposited into the Permanent Fund. There, it is invested in various ways by the Alaska Permanent Fund Corporation, a stand-alone corporation wholly owned by the state. A portion of the earnings from these investments is paid out as annual dividend checks to Alaska residents.

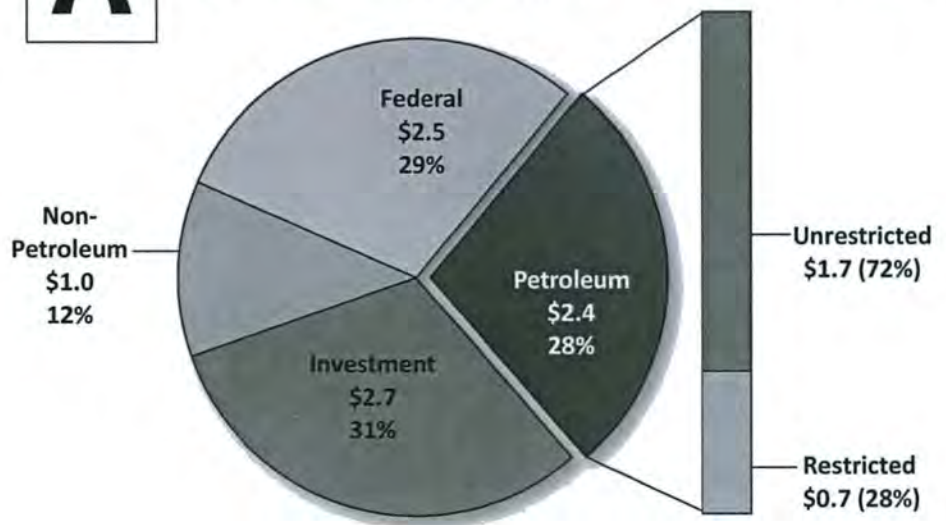
The state also receives payments from the federal government for bonuses, rents, and royalties derived from oil and gas leases in the National Petroleum Reserve-Alaska (NPR-A). These funds are deposited into a special NPR-A fund and are considered "federal revenue."

The state occasionally receives settlements from tax and royalty disputes between the state and taxpayers. These payments are deposited into the Constitutional

Chapter 4  
**A**

### FY 2015 Petroleum Revenue

By restriction and type, in billions of dollars



# Total Petroleum Revenue

By restriction and type

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b>Unrestricted Petroleum Revenue</b>			
Petroleum Property Tax	125.2	133.9	131.7
Petroleum Corporate Income Tax	94.8	105.0	160.0
Oil and Gas Production Tax	389.7	172.1	187.8
Royalties (including Bonuses, Rents and Interest)	1,078.2	650.5	757.8
<b>Total Unrestricted Petroleum Revenue</b>	<b>1,687.9</b>	<b>1,061.5</b>	<b>1,237.3</b>
Increase/(Decrease) from Prior Period	(3,074.9)	(626.4)	175.8
Percent Change from Prior Period	-64.6%	-37.1%	16.6%
<b>Restricted Petroleum Revenue</b>			
<b>Other Restricted</b>			
Royalties, Bonuses and Rents to the Alaska Permanent Fund	510.4	283.0	326.3
Royalties, Bonuses and Rents to the Public School Trust Fund	7.9	4.7	5.5
Tax Settlements to Constitutional Budget Reserve Fund	149.0	20.0	20.0
<b>Subtotal Other Restricted</b>	<b>667.3</b>	<b>307.7</b>	<b>351.8</b>
<b>Federal</b>			
NPR-A Royalties, Rents and Bonuses	3.2	4.3	4.3
<b>Total Restricted Petroleum Revenue</b>	<b>670.5</b>	<b>312.0</b>	<b>356.1</b>
Increase/(Decrease) from Prior Period	(263.9)	(358.5)	44.1
Percent Change from Prior Period	-28.2%	-53.5%	14.1%
<b>Total Petroleum Revenue</b>	<b>2,358.4</b>	<b>1,373.5</b>	<b>1,593.4</b>
Increase/(Decrease) from Prior Period	(3,338.8)	(984.9)	219.9
Percent Change from Prior Period	-58.6%	-41.8%	16.0%

Budget Reserve Fund (CBRF), after accounting for any applicable share of royalty settlements deposited into the Permanent Fund and School Fund.

Table 4-1 shows both restricted and unrestricted petroleum revenue collected from each source in FY 2015 and forecasts for FY 2016 and FY 2017. In 2015 royalties represented 64% and production tax represented 23% of unrestricted petroleum revenue, while petroleum property tax accounted for 7% and corporate income taxes accounted for 6%. These four sources accounted for 75% of total revenue to the general fund in FY 2015. Table 4-2 shows the 10-year forecast of unrestricted revenue from these sources.

This chapter will describe each of the sources of petroleum revenue, discuss the methodology used

to create the forecast, and provide a forecast of each source. There is a discussion of both the unrestricted and the restricted portions of petroleum revenue.

## Production Tax

Oil and natural gas produced and sold from lands within Alaska are subject to a severance tax as the resources leaves the land. This includes lands that are owned by the State of Alaska, federal government (like NPR-A), or private parties, such as Native corporations. State ownership of submerged lands extends 3 miles from the shore. Production tax applies only to oil and gas that the producer sells, so it excludes state royalties, gas used in lease operations or flared for safety reasons, and any production that is re-injected into the reservoir.

## Unrestricted Petroleum Revenue

### FY 2015 and FY 2016-2025 Forecast

Millions of Dollars

Fiscal Year	History		Forecast								
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Petroleum Property Tax	125.2	133.9	131.7	131.2	130.1	129.1	127.5	125.7	123.7	121.3	118.5
Petroleum Corporate Income Tax	94.8	105.0	160.0	195.0	205.0	200.0	205.0	200.0	195.0	195.0	195.0
Oil and Gas Production Tax <sup>1</sup>	389.7	172.1	187.8	276.8	296.3	295.6	318.4	307.1	286.7	292.6	300.7
Royalties-Net <sup>2</sup>	1,078.2	650.5	757.8	839.9	901.1	869.2	884.1	843.3	793.9	752.9	711.4
<b>Total Oil Revenue</b>	<b>1,687.9</b>	<b>1,061.5</b>	<b>1,237.3</b>	<b>1,443.0</b>	<b>1,532.5</b>	<b>1,493.9</b>	<b>1,535.1</b>	<b>1,476.1</b>	<b>1,399.4</b>	<b>1,361.7</b>	<b>1,325.6</b>
Increase/(Decrease) from Prior Period	(3,074.9)	(626.4)	175.8	205.7	89.5	(38.5)	41.2	(59.0)	(76.7)	(37.6)	(36.1)
Percent Change from Prior Period	-64.6%	-37.1%	16.6%	16.6%	6.2%	-2.5%	2.8%	-3.8%	-5.2%	-2.7%	-2.7%

<sup>1</sup> Includes hazardous release and conservation revenues.

<sup>2</sup> Includes bonuses and interest.

In 2013 the Legislature passed Senate Bill 21 (SB 21), which is the existing production tax regime applicable to North Slope oil production. Under SB 21, the base tax rate is 35% of the net value of oil and gas production. For most fields, there is a progressivity mechanism in the form of a variable credit for each taxable barrel of oil produced. The value of the credit changes depending on the wellhead value of each taxable barrel of oil. Because the dollar value of each credit decreases as the price of oil increases, the effective tax rate the state collects on that barrel increases, making it a progressive system. This credit is \$8 per taxable barrel at wellhead values below \$80 per barrel, then phases out as the price of oil increases until it is eliminated at wellhead values above \$150 per barrel.

SB 21 incentivizes the development of certain new production areas by excluding 20% of the gross value for that production from the tax calculation. Qualifying production includes areas surrounding a currently producing area that may not be commercially viable to develop, as well as new oil pools that are discovered or developed. Oil that qualifies for this Gross Value Reduction (GVR) receives a flat \$5 per taxable barrel credit rather than the variable rate described above. An estimate of how much oil might be eligible for this incentive is included in Table 4-5 in the production portion of this chapter.

For the North Slope, there is a minimum tax of 4% of gross value that applies when oil prices are above \$25

for a calendar year, with lower rates if oil prices were to average below \$25. The per-taxable-barrel credit for non-GVR production cannot reduce a taxpayer's liability below the minimum tax; however, other credits such as the per-taxable-barrel credit for GVR-eligible production, net operating loss carry-forward, and the small producer credit can reduce a taxpayer's liability below the minimum tax. The production tax includes several other nuances and provisions beyond the brief description provided here. For more information about the various tax credits, including a 10-year forecast, see Chapter 8.

In addition, special provisions apply for production from areas other than the North Slope (for example, the Cook Inlet basin), as well as for taxation of private landowner royalty interests and natural gas used for qualified in-state uses. The production tax discussion in this chapter is focused almost exclusively on North Slope oil, because that is the source of nearly all production tax revenue as well as revenue volatility from year to year.

Revenue from production tax is estimated by forecasting the components used in the tax calculation, then subtracting estimated tax credits. Under a net value tax regime, these components include the price of oil, the cost of transportation, the cost of production, and the volume of production. The price of oil is the most unpredictable component. The state effectively shares in the transportation and production costs by making

**ANS Oil and Gas Production Tax**

## Data summary

Fiscal Year	History	Forecast	
	2015	2016	2017
<b>North Slope Price (dollars per barrel)</b>			
ANS West Coast	72.58	49.58	56.24
Transit Costs and Other	9.74	10.56	11.16
ANS Wellhead	62.83	39.02	45.08
<b>North Slope Production (thousand barrels per day)</b>			
Total ANS Production	501.5	500.2	504.9
Royalty and Federal <sup>1</sup>	67.0	63.0	62.2
Taxable Barrels	434.5	437.2	442.6
<b>North Slope Lease Expenditures<sup>2,3</sup> (millions of dollars)</b>			
<b>Total North Slope Lease Expenditures</b>			
Operating Expenditures (OPEX)	3,438.8	3,232.6	3,140.9
Capital Expenditures (CAPEX)	3,992.0	3,656.1	3,324.2
<b>Total North Slope Expenditures</b>	<b>7,430.8</b>	<b>6,888.7</b>	<b>6,465.1</b>
<b>Deductible North Slope Lease Expenditures</b>			
Operating Expenditures (OPEX)	3,318.6	2,954.1	3,017.0
Capital Expenditures (CAPEX)	3,595.8	2,828.4	2,810.5
<b>Deductible North Slope Lease Expenditures</b>	<b>6,914.4</b>	<b>5,782.4</b>	<b>5,827.5</b>
<b>State Production Tax Revenue<sup>4</sup></b>			
Tax Revenue (millions of dollars)	389.7	172.1	187.8
Production Tax Collected per Taxable Barrel (dollars per barrel)	2.5	1.1	1.2
<b>Statewide Production Tax Credits<sup>2,5</sup> (millions of dollars)</b>			
Credits Used against Tax Liability	664.0	120.0	310.0
Credits for Potential Purchase	628.0	500.0	625.0

**Notes**

<sup>1</sup> Royalty and Federal barrels represent the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, and barrels produced from federal offshore property.

<sup>2</sup> Lease expenditures and credits used against tax liability for FY 2015 were prepared using unaudited company-reported estimates.

<sup>3</sup> Expenditure data for FY 2016 and FY 2017 are compiled from company-submitted expenditure forecast estimates and other documentation as provided to the department. Expenditures shown here in two ways: (1) total estimated expenditures including for those companies with no tax liability; and (2) estimated deductible expenditures for only those companies with a tax liability.

<sup>4</sup> Production tax is calculated on a company-specific basis, therefore the aggregated data reported here will not generate the total tax revenue shown. For an illustration of the tax calculation, see Appendix D-1.

<sup>5</sup> Production tax credits shown include all production tax credits and all areas of the state. Assumptions for the \$12 million credits for small Alaska producers are included in the table. Per-taxable-barrel credits for oil not eligible for the gross value reduction may not reduce a producer's liability below the minimum tax; that limitation is reflected in these estimates.

them deductible in the tax calculation. Production volume affects both production tax and royalties.

There is a high degree of uncertainty in forecasting each of the components. Some of the inputs are inherently complex and others are volatile. Based on a number of assumptions, the Department of Revenue develops reasonable approximations for how those variables might behave in the future. Relatively minor deviations from the forecast values in any one component can result in large variations in total revenue. What follows is a description of each component and the method used to forecast the component. These component forecasts are used to develop the forecast of revenue from oil and gas production tax for the next 10 years as seen in Table 4-2. Various tax credits that are subtracted in arriving at this calculation, as well as estimates of additional tax credits purchased by the state, are discussed in Chapter 8.

## Crude Oil Prices

The future price of crude oil is the most sensitive variable in the revenue forecast and is also the most prone to uncertainty. As a price-taker in the global market, Alaska cannot exert any significant pressure on the future price of oil by altering its level of production. Rather, oil prices are determined on a global basis, reflecting fluctuations in supply and demand.

A 10-year forecast of Alaska North Slope (ANS) oil prices, along with the inferred wellhead values, can be found in Table 4-4. Appendix B includes a 10-year history and a 10-year forecast of these values in nominal and real terms, and comparisons to the spring 2015 forecast.

Several major factors contribute to the pricing of oil on the world market, including but not limited to: 1) inventory levels, 2) infrastructure, 3) geopolitics, 4) natural disasters, 5) supply disruptions, 6) action by the Organization of Petroleum Exporting Countries (OPEC), 7) macroeconomic events, and 8) financial market trends and speculation. Figure 4-B shows oil prices in recent months and associated key market events.

Each of these factors influences the price of oil and all have been encountered within the last 10-year period. Without knowledge of when and if these events will occur, it is not possible to forecast a particular path for oil prices with any certainty. Furthermore, the system is dynamic and the impact of the same event can bring about different outcomes at different times.

In the longer term, fundamental economic factors of supply and demand drive oil prices. Ultimately, predicting future price requires an understanding of

demand growth and the available future supply of petroleum products.

## Methodology

One of the major components in developing the official price forecast is a day-long price forecasting session hosted by the Department of Revenue, usually held the first Tuesday of October. The forecast session uses a survey method that relies on a pool of participants from state government, the private sector, and academia. Each participant submits his or her own price forecasts after a day of presentations by experts on oil price markets and market structure. These individual price forecasts are combined with internal models to develop the department's oil price forecast.

The participants forecast ANS prices in real 2015 dollars. The median of the survey responses for each time period is used to develop the price forecast. These prices are converted to nominal (inflation-adjusted) oil prices using the current Callan Associates, Inc. inflation assumption of 2.25%.

The department has developed a probabilistic model to forecast ANS prices. The internal probabilistic model uses three variables to derive oil price ranges, which are costs, global spare capacity and associated volatility based on global spare capacity. This model was presented at the price forecasting session as a tool for participants to consider when making their forecasts.

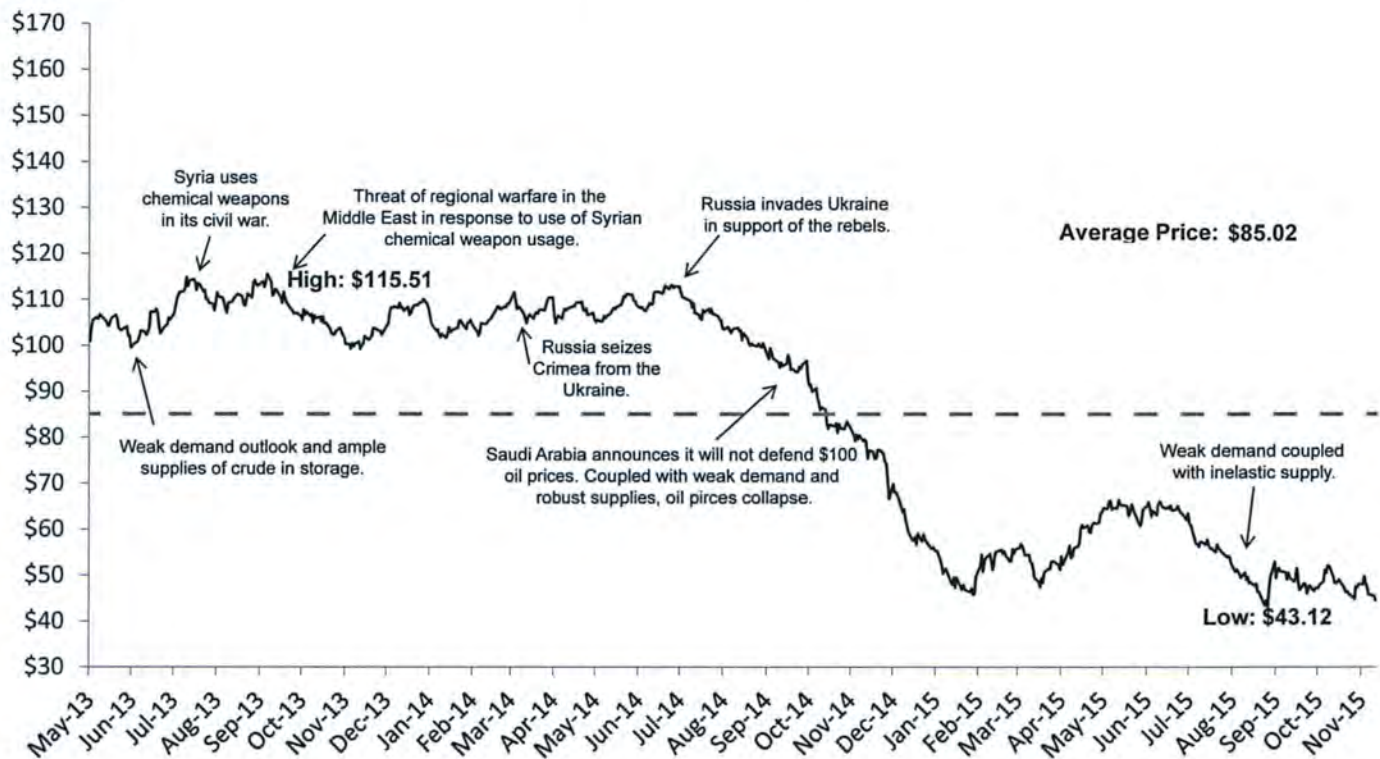
## Price Forecast

Many factors put pressure on the future of oil prices. Currently, one of the most important drivers is increasing global supply with the advancement of horizontal drilling and hydraulic fracturing technology. This technology has unlocked billions of barrels of producible crude in North America and has the potential to unlock billions more barrels of oil around the world. Development of these new resources has created a structural shift in the market as the cost of bringing each new additional barrel to market has fallen drastically. Reviewing real historical oil prices on an annual basis over the past 20 years shows crude has traded between the high teens to about \$120 per barrel. The median, mode and mean ANS prices fall into an approximate range of \$50 to \$60 per barrel during this time period.

Global oil supplies are robust with excess capacity and oil in storage. Market expectations are for continued oversupply at least until the second half of 2016. With Iran reentering world export markets, and

# Alaska North Slope Crude West Coast Price

Paired with associated market events



new supplies of oil from investments made at higher prices, there can be a case made for lower short-term prices. Historically, low price cycles have lasted more than a decade before high prices returned. Since the 2014 price downturn, many market participants engaged in the exploration and production of crude have curtailed or eliminated more than \$200 billion in planned investments worldwide. Reduced investment will support the eventual return of higher oil prices.

On the other side of the economic equation, global demand in many OECD and non-OECD countries is weaker than expected, keeping oil prices low. The ongoing expectation for weak demand can be traced to uncertainty generated by slow global economic growth. Slower economic growth in China has been cited frequently as a major driver of lower crude demand. Without a catalyst to spur demand, it is unlikely that enough spare capacity will be utilized to increase oil price significantly in the short to medium term.

Oil prices used in the forecast come from the fall price forecasting session. Results from the price forecasting session for ANS oil prices can be found in Figure 4-C.

The department projects nominal ANS oil prices will average around \$49.58 per barrel in FY 2016 and

\$56.24 in FY 2017. In the mid-term, the department forecasts ANS to increase, with a FY 2018 price of about \$63 and a FY 2020 price of about \$71. By FY 2025, prices are expected to exceed \$87, mostly due to inflation. When stated in real 2015 dollars, ANS is expected to average around \$70 per barrel over the mid- to long-term.

## Transportation Charges and Other Production Costs

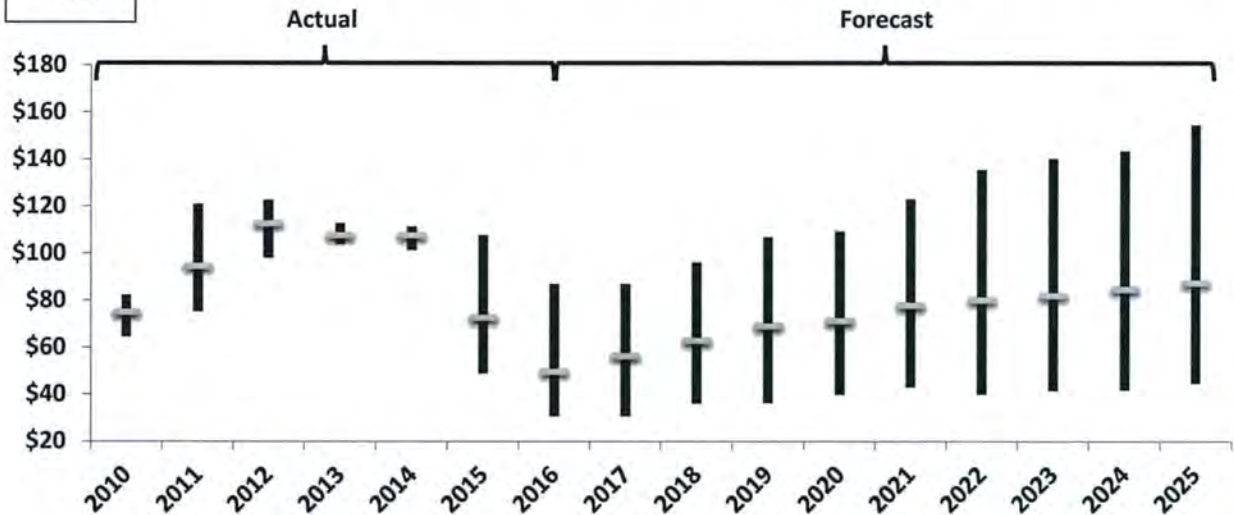
The value of ANS crude oil at the wellhead is calculated by subtracting transportation costs from the sales price or the prevailing value at point of delivery. Transportation components include marine costs, the Trans-Alaska Pipeline System (TAPS) tariff, feeder pipeline tariffs, quality bank adjustments, and other adjustments. The values used in this netback calculation are shown in Table 4-4.

## Marine Transportation Costs

Oil production from the North Slope is delivered through the TAPS to Valdez where it is stored and loaded onto tankers for shipment to refineries located primarily in Washington, California, Hawaii and the

# ANS West Coast Price, History and Forecast

Actual price fluctuation and Official Fall 2015 Forecast spread



Kenai Peninsula. The double-hulled “Alaska Class” and “Endeavour Class” tankers range in size from 125,000 to 215,000 deadweight tons with a carrying capacity of 800,000 to 1.5 million barrels of oil. The typical voyage to the West Coast takes about two weeks.

For tax purposes, companies are allowed to deduct the total costs under the charter or contract for shipping oil and certain other allowable costs borne by the shipper. For crude oil shipped on tankers that are owned or effectively owned by the producer of the transported oil, which is typically the case, allowable marine costs are depreciation, return on investment, fuel, wages and benefits, routine maintenance, tug and pilotage fees, and dry-docking costs.

Marine costs can be broadly categorized as capital, fuel, and labor with each category accounting for roughly one-third of the total. The marine cost model accounts for inflation in labor costs and changes in the cost of bunker fuel as it relates to the crude oil price forecast. Marine costs averaged \$3.25 in FY 2015 and are expected to reach \$3.90 per barrel by FY 2025.

## Trans-Alaska Pipeline System (TAPS) Tariff

Oil produced on the North Slope of Alaska is shipped down the TAPS and takes a couple of weeks to get to Valdez. The 800-mile, 48-inch oil pipeline costs about \$1 billion a year to operate. Tariff rates on the pipeline are regulated to prevent carriers from exerting undue market power. The Regulatory Commission of Alaska (RCA) regulates intrastate rates and the Federal Energy Regulatory Commission (FERC) regulates interstate

rates. In Opinion 154-B, FERC established generic principles for oil pipelines to use a cost-of-service methodology with trended original cost.

With a cost-of-service method, rates are designed around what it costs a pipeline company to provide the service and give an opportunity to earn a reasonable rate of return on its investment. Major components are operation and maintenance expenses, depreciation, income taxes, cost of debt, and rate of return. Depreciation expense allows the pipeline to recover the capital investment undertaken to provide the service, and the rate of return compensates the pipeline for the use of that capital investment. Other recoverable accounts include dismantling, removal and restoration, allowance for funds used during construction, accumulated deferred income taxes, working capital, and legal fees.

The forecasting model uses a simplified cost-based trended original cost tariff model to project the cost of transporting a barrel of oil on the TAPS. The forecast does not attempt to predict the outcome of pending litigation or estimate the level and timing of protested tariffs. Cost components and data to populate the model are extracted from FERC Opinion 502, pipeline tariff filings and FERC Form 6.

Cost-of-service components are projected and then summed for each year to estimate the total cost-of-service or the total revenue required to operate the pipeline. This estimated total revenue requirement is divided by deliveries to calculate the average cost per barrel. The ratio is sensitive to the production profile and the dynamic connection makes the tariff

# Oil Price and Transportation Costs

## Netback calculation

Fiscal Year	Nominal Dollars per Barrel											
	History		Forecast									
	2015	2016 <sup>1</sup>	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Alaska North Slope West Coast Price	72.58	49.58	56.24	62.73	68.95	71.05	77.68	80.00	81.80	84.53	87.35	
ANS Marine Transportation	3.25	3.28	3.37	3.47	3.55	3.60	3.70	3.75	3.80	3.86	3.92	
TAPS Tariff	6.11	6.41	6.73	6.92	7.23	7.73	8.45	9.29	10.22	11.29	12.47	
Other Deductions and Adjustments <sup>2</sup>	0.38	0.87	1.05	1.12	1.18	1.23	1.35	1.43	1.51	1.61	1.72	
<b>ANS Wellhead Price</b>	<b>62.83</b>	<b>39.02</b>	<b>45.08</b>	<b>51.22</b>	<b>56.99</b>	<b>58.49</b>	<b>64.19</b>	<b>65.54</b>	<b>66.27</b>	<b>67.77</b>	<b>69.24</b>	

<sup>1</sup> FY 2016 values include four months of actual data.

<sup>2</sup> Includes other adjustments such as quality bank charges, feeder pipeline tariffs, location differentials, and company-amended information.

increase as costs are spread over fewer units of production. Current filings from the carriers result in a weighted-average TAPS tariff of \$6.28. The preliminary average TAPS tariff deduction claimed on information forms received by the department was \$6.11 for FY 2015. As costs increase and throughput declines, the forecast tariff increases to \$12.47 per barrel by FY 2025.

### Feeder Pipeline Tariffs

Feeder pipelines move the crude oil produced from the various North Slope oil fields to Pump Station No.1 on the TAPS. Shippers on the jurisdictional pipelines pay the carriers a tariff to cover their costs and provide a reasonable rate of return. The six jurisdictional feeder pipelines and their respective tariffs for July 2015 are: Kuparuk \$0.21, Milne \$1.11, Endicott \$4.86, Badami \$8.95, Alpine \$0.89, and Northstar \$3.90. The weighted-average tariff averaged about \$0.87 per barrel in FY 2015 for fields paying a tariff; the average for all North Slope production was \$0.42.

On Oct. 20, 2015, Point Thomson Export Pipeline filed a tariff containing rates to be effective Dec. 15, 2015, for shipping oil from Point Thomson Unit Central Production Facility to the Badami Pipeline. The \$19.17 filed rate is based on the expected initial production volumes.

Feeder pipeline tariff rates are forecast by estimating the total cost-of-service and the throughput volumes for each pipeline. The cost-of-service estimate for each pipeline is divided by the respective volumes from the production forecast. Using the volumes from the fall 2015 production forecast, the weighted-

average feeder tariff for those fields with feeder pipelines is forecast to be \$0.91 in FY 2016 and increase to slightly over \$2.00 in FY 2025. For all production, including Prudhoe Bay, the weighted-average feeder tariff is estimated to average \$0.42 in FY 2016 and increase to about \$0.93 by FY 2025.

### Lease Expenditures

Due to the deductibility of costs in the production tax equation, the department must forecast lease expenditures in addition to oil prices, production, and transportation costs. Lease expenditures are defined as the upstream costs that are the directly related to exploring for, developing, or producing oil or natural gas.

### Methodology

Since 2006, the Department of Revenue has received annual filings of tax returns under the net value production tax. Additionally, the department receives monthly information filings from oil and gas companies operating in the state that provide estimated monthly lease expenditures by property. Semi-annually, the department receives projections of lease expenditures by property for up to five years in the future. These reports are provided by the operators of the properties and have greatly enhanced the department's ability to prepare better revenue forecasts.

The department also uses several other means to forecast lease expenditures including consulting other taxpayer-submitted information such as plans of development. Production profiles are reviewed, as well as publicly available information on planned ex-

ploration activity, changes in activity levels at existing fields, estimated costs of bringing new fields online and projected start-up dates.

## Lease Expenditures Forecast

In FY 2015, the unaudited lease expenditures reported by companies producing or exploring for oil and/or gas on the North Slope on monthly information forms were \$3.4 billion in operating expenditures (also known as OPEX) and \$4.0 billion in capital expenditures (also known as CAPEX). For FY 2016, the department forecasts a reduction in North Slope operating expenditures to about \$3.2 billion, and a reduction in capital expenditures to \$3.7 billion. For FY 2017, the department forecasts North Slope operating expenditures of \$3.1 billion, with capital expenditures continuing to decline to \$3.3 billion.

This forecast represents a reduction in expected capital expenditures as compared to the spring 2015 forecast. As with other areas in the world, companies are paring back spending plans in Alaska in response to dramatically reduced oil prices. For most companies, at least some development drilling, exploration or other projects are being deferred until economic conditions improve. However, at the same time, companies are proceeding with major projects that are currently in progress, such as development of the Point Thomson field, CD-5 (Alpine West), Mustang, and Moose's Tooth. Development drilling also continues in most major currently producing areas.

The forecasts reflect mostly flat capital spending at legacy fields for the next several years compared to increased investment expectations in the spring 2015 forecast. These changes are reflected in a deferral of some production in the production forecast. While exploration spending should remain strong in FY 2016, as plans and commitments have largely been made for this winter season, a significant decline is expected in exploration in FY 2017 and beyond barring a change in the oil price environment. At this time, expenditures for developing any potential discoveries are not included in our forecast.

The total North Slope lease expenditures forecast represents a decrease of about \$700 million for FY 2016 and a decrease of about \$800 million for FY 2017 compared to the spring 2015 revenue forecast. However, changes to the forecast beyond FY 2017 are less substantial, and the aggregate reduction to the forecast of investment expected on the North Slope over the next decade is about \$2.7 billion compared with what was expected in spring 2015. Even with these reductions, anticipated activity and investment remain relatively high compared to the beginning of this decade. Investment expectations will continue to

be monitored and reevaluated based on changes in oil market dynamics.

For areas outside the North Slope (including Cook Inlet), companies are also forecasting decreased investment for FY 2016 and FY 2017. Buoyed by multiple exploration projects and new developments, total lease expenditures outside the North Slope were about \$1.1 billion in FY 2015, an increase of nearly \$250 million from the previous year and more than triple the \$315 million reported in FY 2011. A declining pace of exploration and development is expected going forward. The forecast for total lease expenditures outside the North Slope is about \$880 million for FY 2016 and about \$670 million for FY 2017.

It should be noted that these spending estimates are subject to many uncertainties, including oil prices, and the ability of projects to obtain final company approval and financing. Longer term, there is also significant upside potential for investment, especially later this decade. Projects deferred due to low oil prices could be brought back into play if economic conditions improve. Also, several potential new developments are being evaluated but are not concrete enough to include in this forecast. Notably, expenditures for developing potential discoveries from most of the exploration taking place in the state are not included in the forecast, and will not be until those developments meet the thresholds for inclusion in the production forecast.

For lease expenditure forecasts of FY 2018 and beyond, a risk factor has been applied to ensure consistency with the department's production forecast. For units that are not currently in production, the risk factor has been applied to the entire amount of capital expenditures and operating expenditures associated with those units. For currently producing units, the risk factor has been applied only to a portion of anticipated expenses, based on the portion of production that is forecast from new oil in each year (since risk factors are only applied to that category of production). More information on the risk adjustment methodology incorporated into the production forecast can be found in the crude oil production section of Chapter 4 in the Fall 2012 Revenue Sources Book (RSB).

## Production Volumes

Future oil production is crucial to forecasting oil revenue since the variable is used to calculate both production taxes and royalties. It is also a key factor in determining future pipeline tariff rates, which impact the wellhead value on which both taxes and royalties are calculated. Future production also influences the

economic life of infrastructure, which is a factor in property tax assessment.

## Geographic Impact

Production from different geographic areas has different implications for petroleum revenue. Oil produced within state boundaries is subject to state taxes, but oil produced beyond 3 miles offshore is not. The state collects 100% of the royalties on state-owned lands while royalties from oil produced on federal lands are shared with the state. For royalties from oil produced on private lands, the state does not collect a share of royalty directly, but instead assesses a tax on the private landowner royalty interest in the amount of 5% of the gross value for oil; this revenue is included in reported production tax revenue.

Offshore leases 3 to 6 nautical miles from shore are federal leases, under which the state is entitled to 27% of the amount the federal government collects in bonuses, rents, and royalties. The authority for this revenue sharing is the federal Outer Continental Shelf Lands Act, Section 8(g). This 3-mile band is referred to as the "8(g) zone." The state is entitled to 50% of the bonuses, rents and royalties that the federal government receives from the leasing of lands in the NPR-A. The federal government dictates that shared NPR-A revenue must be used for specific purposes and therefore is considered restricted revenue.

## Methodology

The Department of Revenue contracts with an outside petroleum engineering consultant to help forecast oil production. The consultant evaluates and projects production from currently producing wells on a well-by-well basis. The consultant and department staff meet with oil company representatives to discuss project plans and cash-flow schedules of each operator's area of operation. From these meetings, the consultant advises the department on expected future operations, maintenance plans, general risks, concerns, and uncertainties regarding future operations. The consultant provides an expert assessment, based on engineering principles, as to the technical potential production level for each oil pool over time.

The department then takes further risks and uncertainties into consideration and accounts for these. Thus, many projects are anticipated by the department, however, the full amount of future volumes associated with them do not necessarily enter revenue projections. These are added incrementally as they become more certain with time.

Consistent with the procedure developed in 2012, the fall 2015 forecast consists of oil volumes pro-

duced from three categories: (1) developed oil and gas reserves, (2) presently undeveloped oil and gas reserves, and (3) presently contingent resources. Oil volumes are produced from developed reserves. Prior to development, undeveloped reserves are expected to be recovered from new wells on undrilled acreage or from existing wells where a relatively major expenditure is required for recompletion.

Oil production volumes forecast from wells drilled since the last forecast are now considered developed reserves whereas those projects were counted as undeveloped reserves last year. The categorization of oil volumes makes it difficult to compare forecasts between publications, except in aggregate volumes because oil volumes transition across the three categories: from contingent resources to undeveloped resources to developed resources.

## Volumes from Developed Reserves

The consultant utilizes data from the Alaska Oil and Gas Conservation Commission to develop a time series dataset to assess the future production profile of wells that are already in production. This data is provided by the producers and includes information on reservoir characteristics, oil flow rates, gas/oil ratios, and water cuts. Using these data and decline-curve analysis, an expectation for future production is developed for each producing well. Planned downtime is factored in for known work-overs and stimulation work and anticipated responses are incorporated into future production. By aggregating these production profiles, an expected decline rate by pool is developed based on well-specific data.

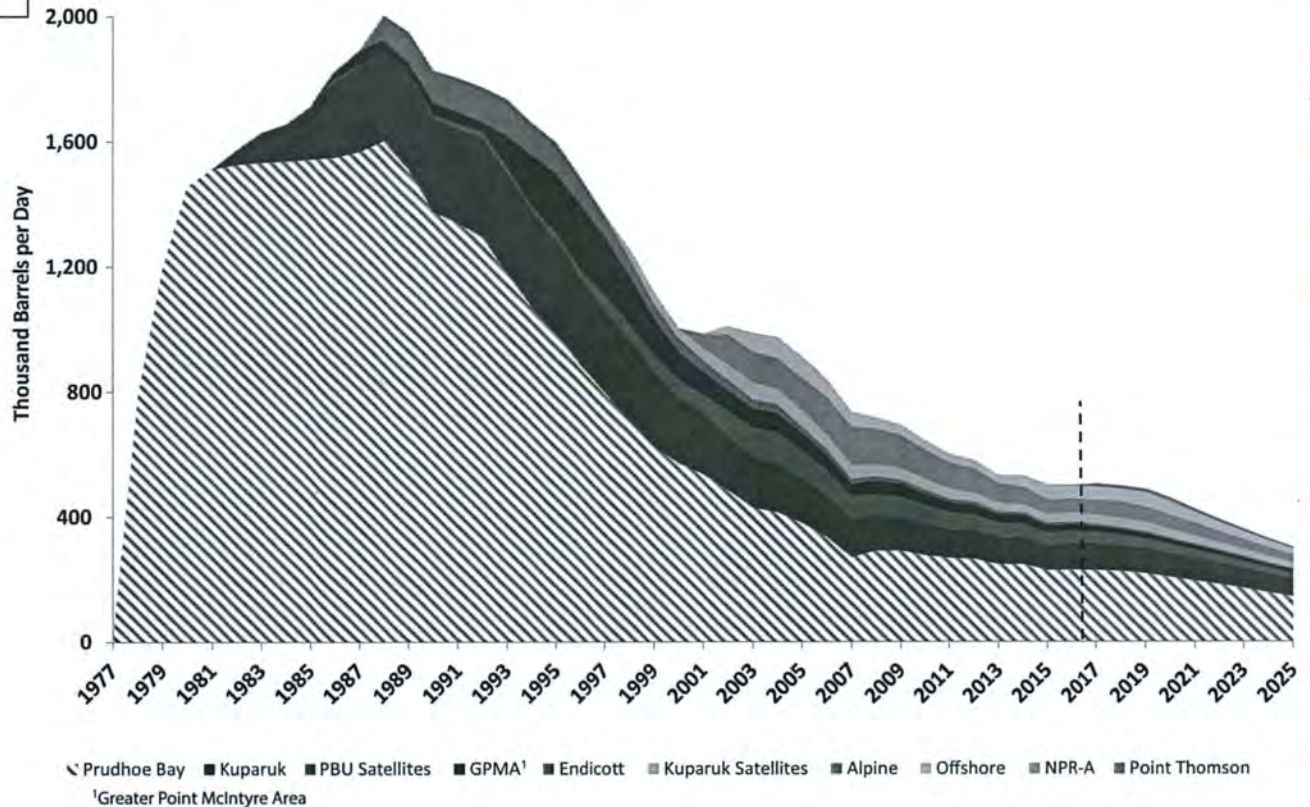
Production from developed reserves are the least speculative category in the production forecast. With developed reserves, the recovery of oil is through existing wells with existing equipment and operating methods, through installed extraction equipment and infrastructure operational at the time of the forecast. As the cost associated with producing from these wells is the continued operating costs, to assume only this portion of the forecast is analogous to assuming no future capital investment. Therefore, volumes from developed reserves are considered the most conservative forecast as shown as the Currently Producing case in Table 4-5 and Figure 4-E.

## Volumes from Undeveloped Reserves

For forecasting purposes, when a project has funding, approval, and an annual cash flow schedule, and a drilling plan, but is not yet developed, the volumes from that project are categorized as undeveloped reserves. If a project does not have these qualifiers, the expected future volumes from it are not considered

# Alaska North Slope Production

By production area, 1977-2025



undeveloped; rather these contingent or prospective resources are considered too uncertain to include with any degree of certainty.

Oil volumes that are not produced from existing wells are considered to come from presently undeveloped reserves. Volumes from undeveloped reserves include production from infill drilling within existing units, incremental oil from enhanced oil recovery methods, increases in flow rates via debottlenecking facilities, and the development of new areas that are not currently in production. This layer consists of projects considered “under development” as well as “under evaluation.” More information regarding these terms can be found in the Fall 2012 Revenue Sources Book.

Because all oil in this category requires some level of capital employment and the use of equipment, there is potential for each of these projects to be delayed or abandoned. The actual performance of each project is also uncertain as no production data exists. Therefore, some consideration must be given to the associated risk, or else the forecast is prone to be overly optimistic. In the best-case scenario, all projects would come in on-time, on-budget, and on-target. This scenario is the technical forecast provided by the department’s

consultant and is labeled “Technical Forecast” in Table 4-5 and Figure 4-E. The scenario used for the 10-year forecast, which accounts and adjusts for uncertainties, is called the “Official Forecast.”

## Production Forecast

ANS oil production in FY 2015 averaged 501,500 barrels per day resulting in a decline of 6% from the FY 2014 volume of 531,100 barrels per day, which was level with the FY 2013 volume. In FY 2015 Cook Inlet had its fifth consecutive annual increase in production from the FY 2014 volume of 15,800 barrels per day to 18,000. Historical daily average production from ANS and Cook Inlet is shown in Figure 4-F.

Appendix Table C-1 compares the spring 2015 and fall 2015 forecasts. Total production in the fall 2015 forecast is lower than the spring forecast for the next five years and then higher in the following five years. While the forecast for production from Non-North Slope is higher over the entire period, the profile for ANS production overwhelms the increase.

Historical production by major producing areas is shown in Appendix Table C-2a, and Table C-2b presents

# Alaska North Slope Oil Production

By category, FY 2016-2025 forecast

Fiscal Year	Barrels per Day									
	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Currently Producing Forecast</b>	451,843	406,130	371,016	337,889	309,843	285,376	263,711	244,809	228,204	213,084
Decline Rate	-10%	-10%	-9%	-9%	-8%	-8%	-8%	-7%	-7%	-7%
<b>Official Forecast</b>	500,236	504,861	497,702	487,584	460,476	423,857	391,091	359,791	329,197	302,088
Decline Rate	0%	1%	-1%	-2%	-6%	-8%	-8%	-8%	-9%	-8%
<b>Technical Forecast</b>	500,236	504,861	502,813	508,726	499,468	474,395	450,986	428,000	402,194	377,121
Decline Rate	0%	1%	0%	1%	-2%	-5%	-5%	-5%	-6%	-6%
Production from GVR-Eligible Fields under Official Forecast	33,855	46,065	51,018	57,244	53,800	43,899	36,627	31,114	26,817	23,360
Percent GVR-Eligible under Adjusted Expected Investment Case	7%	9%	10%	11%	11%	9%	8%	7%	7%	6%

Note: GVR is an acronym for Gross Value Reduction.

a forecast of volumes aggregated by the same producing areas. The forecast of North Slope production is best described as the mean expected volume flowing through the TAPS from each of the producing areas.

As discussed in the capital expenditures section, companies are paring back spending plans in response to dramatically reduced oil prices. Projects that are uneconomic in the current environment are being canceled or deferred until economic conditions improve. The volumes don't go away, they are just uneconomic in the current oil price environment and such projects must wait for realization of a new cost structure and/or higher oil prices. The general tone from industry is that projects have been slowed down and pushed out.

Exploration should remain strong in FY 2016, as plans and commitments have largely been made for this winter season, but in a low price oil environment a significant decline in exploration activity is expected in FY 2017 and beyond. Once a drilling project is in progress there are incentives to complete the program irrespective of the price of oil. It takes about five years to develop a program to market and it is difficult to turn it off and abandon the dollars already spent on the project. Major projects in progress are Point Thomson, CD-5 (Alpine West), Mustang, and Moose's Tooth. Some development drilling also continues in major currently producing areas.

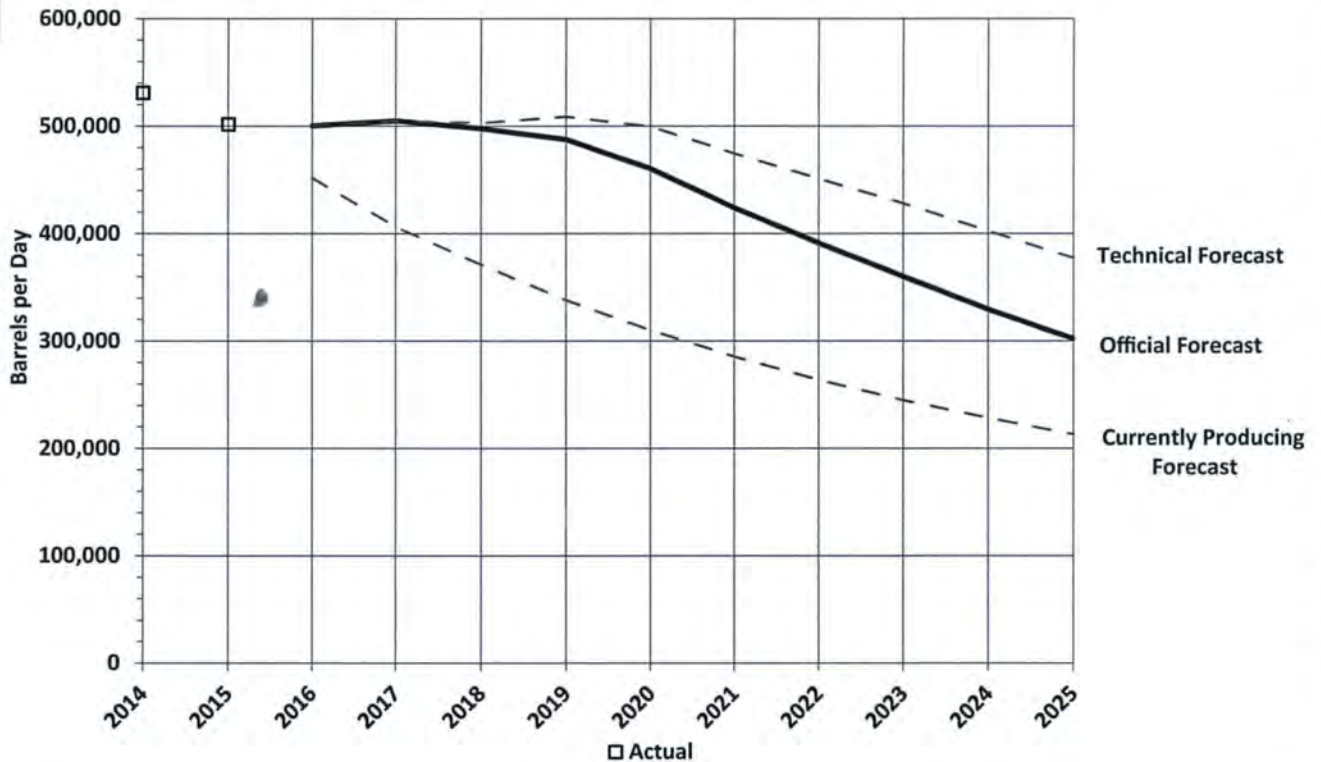
Over the next two years, the forecast is for essentially flat production volumes. Figure 4-E shows historical values for FY 2014 and FY 2015 and a forecast to 2025. Beyond 2017, a range is provided for potential production possibilities. The Technical Forecast is considered technically possible, but essential commercial uncertainties have not been considered in this case. If, however, all projects went according to plan, these levels of production are expected to occur. Accounting for these uncertainties, the Official Forecast provides a somewhat more conservative view of ANS oil production. If no new investment occurred, then much less oil would be expected to be produced and is illustrated by the Currently Producing Forecast. Values for the forecasts can be found in Table 4-5. Figure 4-D shows historical ANS production by major area with expected production from those areas to FY 2025.

## Production Tax Revenue Forecast

In broad terms, future revenue from production tax is a function of the forecasts of the various components. The netback components, as shown in Table 4-4, are deducted from the West Coast destination price to determine an ANS wellhead price which is multiplied by the projected volume to calculate a gross value at the point of production. Lease expenditures are deducted from the gross value to calculate a net value to which

# Alaska North Slope Petroleum Production Forecast

## FY 2016 to FY 2025



the production tax is applied and adjusted for anticipated credits. The forecast of production tax revenue also accounts for various nuances and provisions of the tax code, including the gross minimum tax, Gross Value Reduction (GVR), company-specific differences in investment and field ownership, impacts of natural gas production, and non-North Slope activity.

The state received \$389.7 million in production tax revenue in FY 2015 and expects to receive \$172.1 million in FY 2016 and \$187.8 million in FY 2017. See Table A-3 in the appendix for a historical comparison with a high of \$6.8 billion in 2008 relative to the forecast value of \$301 million in 2025. Lower oil prices and production volumes in conjunction with expected lease expenditures result in forecast values for production tax revenue remaining under \$325 million per year for the entire forecast period. The revenue forecast from Cook Inlet production is negligible due to the tax incentives currently in place.

These revenue estimates account for tax credits applied against a tax liability that reduces the tax payments made to the state. However, they do not include the impact of refundable tax credits purchased by the state for companies without a tax liability. State purchase of those additional tax credits is funded through appropriations to the Oil and Gas Tax Credit Fund, as discussed in Chapter 8.

## Royalties

A royalty interest is an ownership of future production and is a typical feature in oil and gas contracts with a landowner. These royalty interests are made as part of a contract prior to the actual development of a project and allow the company to shift some of the risk to the landholder. When a company bids on a lease, it pays an up-front bonus payment, agrees to an annual rental payment, and typically offers a royalty interest in any discoveries that may be found. Thus, the bonus is a guaranteed payment to the state as the owner, while the royalty is a contingent amount only paid if there is success in production.

In Alaska, the state retains ownership of all subsurface minerals on state lands and requires a minimum royalty rate of one-eighth (12.5%) of any production, although there are exceptions that can be made for economically challenged projects. In other U.S. oil producing areas, private citizens usually own these subsurface rights and the royalty is paid directly to the landowner, rather than the government. Occasionally, a company may enter into a net profits sharing lease, which bases the royalty payment on net profits rather than the gross value of the oil. These profit-sharing leases can reach as high as 75% of company profits after the company's development costs

are recovered. Most leases in Alaska are one-eighth (12.5%) or one-sixth (16.67%) royalty.

Alaska has the option of allowing the company to sell the royalty oil on its behalf (known as "royalty in-value" or "RIV"), or to sell the royalty oil itself (known as "royalty in-kind" or "RIK"). The state currently holds a contract to sell some royalty oil to the Tesoro refinery in Cook Inlet. The one-year contract is for up to 15,000 barrels of oil per day. The value the state accepts for royalty in-kind cannot be lower than the value it would receive for royalty in-value.

The actual price received for RIV oil is a derived price based on the value of oil sold on the West Coast and adjusted by a formula defined by Alaska Department of Natural Resources' royalty settlement agreements. All costs of shipping the oil on pipelines and tankers are subtracted from this value in order to determine the actual value of the oil (called the "wellhead value"). This value may be slightly different between calculating royalty values and taxable values due to differences in statutes and regulations.

For more information about royalties, visit the Department of Natural Resources' Division of Oil and Gas website at [www.dog.dnr.alaska.gov](http://www.dog.dnr.alaska.gov).

## Royalty Forecast

The Department of Revenue forecasts that \$650.5 million in unrestricted petroleum royalty revenues will be collected by the Department of Natural Resources in FY 2016. Projections show a FY 2025 collection of \$711.4 million in unrestricted petroleum royalties. These amounts are inclusive of bonuses, rents, and interest.

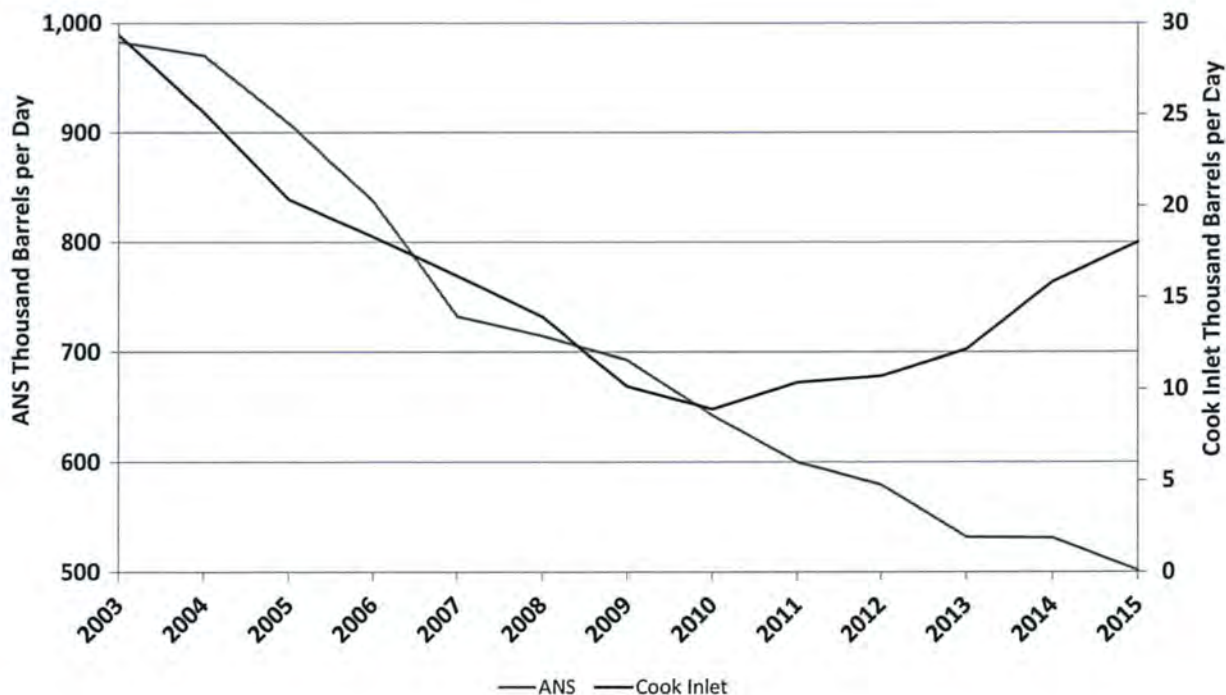
## Petroleum Property Tax

Petroleum property subject to state oil and gas property tax includes property used in the exploration, production and pipeline transportation of unrefined oil and gas. Each year, the Department of Revenue determines the assessed value for taxable petroleum property as of the assessment date of Jan. 1. The state then levies a tax on its assessments at a rate of 20 mills (2%) of the assessed value. When petroleum property is located within a municipality, the municipality may also levy a tax on the department's assessments at the same rate it taxes all other property within its jurisdiction. The tax paid to a municipality on petroleum property assessments acts as a credit toward payment to the state on those same assessments.

### Chapter 4

# F

## Alaska North Slope and Cook Inlet Production Historical FY 2003 to FY 2015



## Methodology

Forecasting state revenue from petroleum property tax starts with the most recent certified assessed values for oil and gas property in Alaska. Assumptions are made regarding future capital investment and typical depreciation curves are applied. The state rate of 20 mills is applied to the forecast values and estimates of payments to municipalities are then subtracted to estimate net receipts to the state. Table 4-6 shows the state share and local share of petroleum property tax by jurisdiction.

## Property Tax Forecast

In FY 2015 the state collected about \$125.2 million in revenue from petroleum property tax. About \$134 million is expected in FY 2016 with a gradual decline to about \$119 million in FY 2025.

## Corporate Income Tax

An oil and gas corporation's Alaska income tax liability depends on the relative size of its Alaska and worldwide activities and the corporation's total worldwide net earnings. The corporation's Alaska taxable income is derived by apportioning its worldwide income to Alaska based on the average of three factors as they pertain to the corporation's Alaska operations: (1) tariffs and sales, (2) oil and gas production, and (3) property. The tax rates are graduated according to the schedule in Table 5-3.

Corporate income tax revenue is one of the more volatile revenue sources for the State of Alaska because of year-to-year variation in the profitability of oil companies.

## Methodology

The corporate income tax (CIT) forecast is derived from a combination of two models. The first is a regression model that predicts quarterly petroleum CIT payments based on ANS oil prices, North Slope oil production, and industry costs as measured by the oil producer price index. The model regresses past CIT payments on these variables, then uses the regression coefficients to predict future CIT payments based on official Department of Revenue forecasts of oil prices and production.

For this forecast, the existing oil CIT models did not appear to account entirely for recent changes in economic conditions in the oil industry. Due to the sustained period of high oil prices before the 2014 declines, oil companies' cost structure may have shifted such that prices in the range of \$50 will hurt

companies much more now than they would have in the past. Therefore, for the second model, the department looked at analyst forecasts of oil company earnings per share and estimated changes to oil companies' income based on those analyst forecasts. The department then averaged the predictions of this analyst-based model with those of our original regression model.

## Corporate Income Tax Forecast

FY 2015 receipts totaled \$95 million, down from \$317 million in FY 2014. The department is forecasting FY 2016 revenue of \$105 million and FY 2017 revenue of \$160 million as prices remain low but companies adjust their cost structure to fit better with the low-price environment. By FY 2018, corporate income tax collections are projected to increase to \$195 million and remain in that range due to the anticipated modest increase in oil prices and continued declines in Alaska production.

## Oil Revenue Summary

As shown in Table 4-1, total petroleum revenue is expected to decrease from \$2.4 billion in FY 2015 to \$1.4 billion in FY 2016 and then increases slightly to \$1.6 billion in FY 2017. The revenue stream peaks at about \$2.0 billion in 2019 and then gradually declines to \$1.6 billion by FY 2025. Petroleum revenues accounted for 28% of total state revenue in FY 2015 and are expected to fall to 14% in FY 2016. The percentage increases to 18% for the FY 2019-2022 period then declines to 16% by 2025.

Petroleum remains the major source of unrestricted general fund revenue during the forecast period. In FY 2015 petroleum accounted for 75% of unrestricted revenue. The percentage decreases to 65% by 2025.

## Restricted Revenue

As mentioned earlier, some oil revenue is deposited into special accounts for special purposes, including the Permanent Fund, Constitutional Budget Reserve Fund, and Public School Trust Fund. Detail about these funds and their balances can be found in Chapter 9. Revenue is also deposited into the NPR-A Fund.

## Restricted Royalties

The majority of restricted revenue comes from royalties. At least 25% of royalty collections are required to be deposited into the Permanent Fund by the Alaska Constitution. For some leases, an additional 25% is

deposited according to provisions in statute for a total deposit of 50%. The weighted average of these contributions results in about 30% of all royalty collections being deposited into the Permanent Fund. The Public School Trust Fund receives 0.5% of royalty collections to support the state public school program.

### **NPR-A Fund**

The state is entitled to 50% of the bonuses, rents, and royalties that the federal government receives from the leasing of lands in the National Petroleum Reserve-Alaska. This revenue is deposited into the NPR-A Special Revenue Fund and is restricted for specific uses. These funds can be appropriated to municipalities in the form of grants to compensate for impacts resulting from the development on those lands. Revenue that is not appropriated is treated like other royalty revenue (25% is deposited into the Permanent Fund, and 0.5% to the Public Schools Trust Fund), with the remaining revenue available for appropriation to the Power Cost Equalization Fund, Rural Electric Capitalization Fund or General Fund. For purposes of categorization, these funds are considered Federal Restricted Revenue within the category of Petroleum Revenue, as they are collected from oil activity. These payments amounted to \$3.2 million in FY 2015.

### **Hazardous Release Surcharge**

Up to \$0.05 per barrel of taxable oil is collected and deposited into the Oil and Hazardous Substance Release Prevention and Response Fund (or simply the Response Fund). This fund was created in 1986 under Alaska Statute 46.08 and is intended to be a source of funds that can be drawn upon in the event of the release of a hazardous substance for the abatement of damages. The fund is separated into two accounts – a

response account and a prevention account. As the names imply, the response fund is designed to respond to a spill or discharge, while the prevention account is intended to support the Alaska Department of Environmental Conservation in spill prevention and preparedness activities. The prevention account can also be used to respond to substance releases that are not declared disasters by the governor and can be used to support other response and prevention programs if appropriated by the Legislature.

The surcharge paid to the response account is \$0.01 per taxable barrel of oil produced in the state. However, the surcharge is suspended when the account has a balance of \$50 million or more. In November 2006, the fund was accessed to assist with pipeline spills on the North Slope. The surcharge was re-imposed in 2007 and has been suspended and re-imposed since. The balance of the fund as of Sept. 30, 2015, was \$49.5 million.

Following a 2006 amendment, the prevention account now receives a surcharge of \$0.04 per taxable barrel of oil produced within the state (increased from \$0.03). All interest payments, penalties, settlements, and fines from both accounts are deposited into the prevention account and are available for appropriation to eligible programs. This account does not have a limit.

In 2015 the Legislature added additional funding to the Spill Prevention and Response program through a surcharge on refined fuel sales in the state. This is discussed in more detail in Chapter 5 in the section entitled, "Taxes, Motor Fuel Tax."

*(Continued with table, next page)*

# Petroleum Property Tax<sup>1</sup>

## Distribution, FY 2015

	Millions of Dollars		
	FY 2015		
	Gross Tax	Local Share	State Share
<b>Taxing Jurisdiction</b>			
Unorganized	75.1	0.0	75.1
North Slope Borough	403.6	373.3	30.3
Fairbanks North Star Borough	16.7	12.0	4.7
Municipality of Anchorage	8.6	6.3	2.3
Kenai Peninsula Borough	24.5	11.9	12.6
City of Valdez	43.4	43.4	0.0
Matanuska-Susitna Borough	0.3	0.2	0.1
Northwest Arctic Borough	0.0	0.0	0.0
City of Whittier	0.0	0.0	0.0
City of Cordova	0.2	0.1	0.1
<b>Total FY 2015</b>	<b>572.4</b>	<b>447.2</b>	<b>125.2</b>

<sup>1</sup>Tax amounts shown here represent the total certified tax roll for the 2015 tax year, which was due June 30, 2015. These amounts may not exactly match cash revenue received in the fiscal year as presented elsewhere in this book. "Gross Tax" represents total petroleum property tax assessed. "Local Share" represents petroleum property tax levied by municipalities. The "State Share" represents total tax due to the state, which is gross tax less credits for municipal taxes.

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# Chapter 5

## Non-Petroleum Revenue

### Introduction

Revenue collections from in-state activities other than petroleum include non-petroleum taxes, charges for services, fines and forfeitures, licenses and permits, rents and royalties, and miscellaneous and transfer revenue sources such as dividends from public entities. These sources are categorized as "Non-Petroleum Revenue, except federal and investment," sometimes shortened to "Non-Petroleum Revenue." Federal and investment revenue are discussed in Chapters 6 and 7, respectively. These revenue sources are each subcategorized into Unrestricted, Designated General Fund, and Other Restricted Revenue in Table 5-1. The amounts of each revenue type are reflected in Table 5-2 and Tables 5-4 through 5-8 in this chapter.

This chapter provides history on non-oil revenue sources for FY 2015 and forecasts revenue for FY 2016 and FY 2017. The chapter also includes descriptions of each revenue source and explains the methods used to forecast them. The Tax Division's website, and the Tax Division's Annual Reports for FY 2014 and prior,

contain more comprehensive historical information about each tax type collected by the Tax Division. The Alaska Department of Administration's Comprehensive Annual Financial Report contains more detail about many non-tax revenue sources.

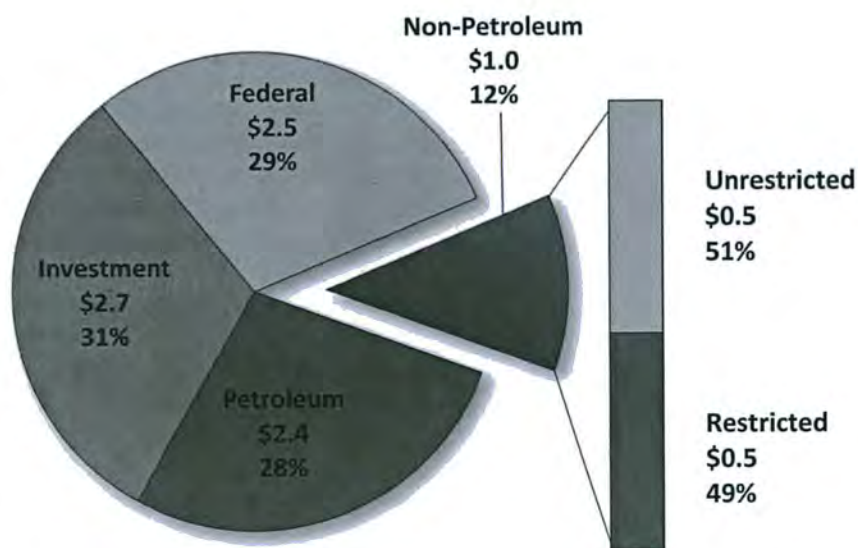
### Taxes

#### Alcoholic Beverages Tax

Alcoholic beverage taxes are collected primarily from wholesalers and distributors of alcoholic beverages sold in Alaska. The per-gallon tax rates on alcoholic beverages are \$1.07 for beer, \$2.50 for wine, and \$12.80 for liquor. Qualifying small brewers pay tax at a rate of \$0.35 per gallon for beer. Revenue is deposited into the general fund. Fifty percent of the revenue is deposited into a sub-fund of the general fund, the Alcohol and Other Drug Abuse Treatment and Prevention Fund, and is treated as restricted in this forecast.

In Alaska over the past five years, wine consumption has grown at an annual rate of 2.35% and liquor con-

Chapter 5  
**A** **FY 2015 Non-Petroleum Revenue**  
By restriction and type, in billions of dollars



# Non-Petroleum Revenue

By restriction and category

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b><u>Unrestricted</u></b>			
<b>Unrestricted Non-Petroleum Revenue</b>			
Taxes	380.8	346.8	353.5
Charges for Services	20.1	22.7	22.7
Fines and Forfeitures	12.4	11.4	11.4
Licenses and Permits	34.4	42.5	40.0
Rents and Royalties	36.3	30.8	30.8
Other	37.5	55.9	62.6
<b>Total Unrestricted Non-Petroleum Revenue</b>	<b>521.5</b>	<b>510.1</b>	<b>521.0</b>
<b><u>Restricted</u></b>			
<b>Restricted Non-Petroleum Revenue</b>			
<b>Designated General Fund</b>			
Taxes	51.9	48.8	48.0
Charges for Services	227.4	267.1	258.5
Fines and Forfeitures	7.6	9.1	9.0
Licenses and Permits	0.1	0.2	0.2
Rents and Royalties	3.4	4.2	4.2
Other	22.9	18.8	18.8
<b>Subtotal Designated General Fund</b>	<b>313.3</b>	<b>348.2</b>	<b>338.7</b>
<b>Other Restricted</b>			
Taxes	68.2	67.7	68.7
Charges for Services	45.3	82.4	82.4
Fines and Forfeitures	23.6	23.5	23.3
Licenses and Permits	33.9	32.4	32.4
Rents and Royalties	6.0	6.9	6.9
Other	6.9	6.8	6.8
<b>Subtotal Other Restricted</b>	<b>183.9</b>	<b>219.7</b>	<b>220.5</b>
<b>Total Restricted Non-Petroleum Revenue</b>	<b>497.2</b>	<b>567.9</b>	<b>559.2</b>
<b>Total Non-Petroleum Revenue</b>	<b>1,018.7</b>	<b>1,078.0</b>	<b>1,080.2</b>

# Non-Petroleum Tax Revenue

By source and restriction

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b><u>Unrestricted</u></b>			
<b>Corporate Income Tax (Non-Petroleum)</b>	<b>136.2</b>	<b>104.7</b>	<b>105.3</b>
<b>Excise Tax</b>			
Alcoholic Beverage	17.7	20.0	20.1
Tobacco Products – Cigarettes	27.7	28.2	27.2
Tobacco Products – Other (General Fund)	12.8	14.2	14.9
Electric and Telephone Cooperative	0.2	0.2	0.2
Insurance Premium	59.1	58.9	58.3
Marijuana	0.0	0.0	12.0
Motor Fuel Tax	41.8	51.2	51.0
Tire Fee	1.5	1.5	1.6
Vehicle Rental	9.7	9.5	9.6
<b>Subtotal</b>	<b>170.5</b>	<b>183.7</b>	<b>194.9</b>
<b>Fish Tax</b>			
Fisheries Business	21.3	19.5	17.2
Fishery Resource Landing	5.1	5.3	5.6
<b>Subtotal</b>	<b>26.4</b>	<b>24.8</b>	<b>22.8</b>
<b>Other Tax</b>			
Charitable Gaming	2.5	2.5	2.5
Estate	0.0	0.0	0.0
Large Passenger Vessel Gambling	6.6	6.7	6.7
Mining License	38.6	24.4	21.3
<b>Subtotal</b>	<b>47.7</b>	<b>33.6</b>	<b>30.5</b>
<b>Total Unrestricted Non-Petroleum Tax Revenue</b>	<b>380.8</b>	<b>346.8</b>	<b>353.5</b>

## **Restricted**

### **Designated General Fund**

Alcoholic Beverage (Alcohol and Drug Treatment and Prevention Fund)	19.9	19.8	19.9
Insurance Premium/Other <sup>1</sup>	7.3	7.2	7.1
Tobacco – Cigarettes (Public School Trust Fund)	21.6	19.0	18.3
Tobacco – Cigarettes (Tobacco Use Education and Cessation Fund)	3.1	2.8	2.7
<b>Subtotal</b>	<b>51.9</b>	<b>48.8</b>	<b>48.0</b>

<sup>1</sup> In addition to the workers' compensation insurance premiums for the Insurance Premium Tax, this amount also includes services fees from employers who are self-insured.

*Table continued, next page*

# Non-Petroleum Tax Revenue

By source and restriction *(Continued)*

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b>Other Restricted</b>			
Commercial Passenger Vessel Tax (state share)	2.2	2.2	2.2
Commercial Passenger Vessel Tax (municipal share)	15.0	15.7	15.7
Cost Recovery Fisheries Assessment	0.3	0.3	0.3
Dive Fishery Management Assessment (designated management areas)	0.5	0.5	0.5
Electric and Telephone Cooperative (municipal share)	4.0	4.0	4.0
Fisheries Business (municipal share)	23.1	21.0	21.4
Fishery Resource Landing (municipal share)	3.2	7.0	7.1
Motor Fuel Tax – Aviation (municipal share)	0.2	0.2	0.2
Salmon Enhancement (Aquaculture Association share)	7.7	6.0	6.2
Seafood Development (qualifying regional associations)	2.4	1.7	1.8
Seafood Marketing Assessment (seafood marketing programs)	9.5	9.0	9.2
Settlements to Constitutional Budget Reserve Fund (non-petroleum taxes)	0.1	0.1	0.1
<b>Subtotal Other Restricted</b>	<b>68.2</b>	<b>67.7</b>	<b>68.7</b>
<b>Total Restricted Non-Petroleum Tax Revenue</b>	<b>120.1</b>	<b>116.5</b>	<b>116.7</b>
<b>Total Non-Petroleum Tax Revenue</b>	<b>500.9</b>	<b>463.3</b>	<b>470.2</b>

consumption has grown at an annual rate of 1.8%. Consumption of beer, cider, and malt liquor has dropped at an annual rate of 0.8%, and the share of these beverages produced by qualifying small breweries is steadily increasing, from 17% in 2009 to 28% in 2015. Alcoholic beverage tax revenue is forecasted by applying these five-year annual growth rates to the previous year's consumption, then multiplying predicted consumption by the tax rate. Alcoholic beverage tax revenue fell in FY 2015, but the Department of Revenue forecasts it to bounce back in future fiscal years based on the overall growth rates of consumption.

## Charitable Gaming

Under Alaska law, municipalities and qualified non-profit organizations may conduct specific charitable legal gaming activities to derive public benefit in the form of money for charities and revenue for the state. The department collects permit and license fees, a 1% net proceeds fee, and a 3% pull-tab tax. The Department of Revenue forecasts charitable gaming revenue to stay constant at \$2.5 million.

## Commercial Passenger Vessel Taxes

Alaska voters approved an initiative to impose new taxes and fees on commercial passenger vessels in

2006, which the Legislature modified in 2010. Following are descriptions of the various commercial passenger vessel taxes and fees in current law. The Ocean Ranger Fee is described under Environmental Compliance Fund in the Charges for Service category.

- The commercial passenger vessel tax (CPVT) is a tax of \$34.50 on each passenger aboard a commercial passenger vessel with 250 or more berths. Revenue is deposited into a sub-fund of the general fund, the CPVT account. Five dollars of the tax can be appropriated to each of the first seven ports of call. If a commercial passenger vessel visits a port that levies a tax similar to the CPVT, and that tax was in place before Dec. 17, 2007, the local tax imposed is allowed as a credit against the state tax. Only Juneau and Ketchikan had qualifying levies in place at that time (Juneau's fee is \$8 per passenger and Ketchikan's is \$7). CPVT can only be collected if a vessel spends more than 72 consecutive hours in Alaska waters. All funds received from the CPVT must be spent on port facilities, harbor infrastructure, and other services provided to commercial passenger vessels and the passengers on board those vessels. All revenue from the tax is considered restricted.

# Corporate Income Tax Rate Schedule<sup>1</sup>

Taxable Income	Marginal Tax Rate
\$0-\$25,000	0.00%
\$25,000-\$49,000	2.00%
\$49,000-\$74,000	3.00%
\$74,000-\$99,000	4.00%
\$99,000-\$124,000	5.00%
\$124,000-\$148,000	6.00%
\$148,000-\$173,000	7.00%
\$173,000-\$198,000	8.00%
\$198,000-\$222,000	9.00%
\$222,000+	9.40%

<sup>1</sup> Effective for tax years beginning on or after Aug. 26, 2013.

- The Large Passenger Vessel Gambling Tax is a tax of 33% on the adjusted gross income from gaming or gambling activities aboard large passenger vessels in the state. Revenue goes to the general fund and is considered unrestricted.
- The Alaska corporate income tax applies to large commercial passenger vessels, and the revenue is included in the forecast of corporate income taxes.
- There are penalties for false reporting, violating environmental regulations, and failing to make proper disclosures on promotions and shore side activity sales. Revenue from these provisions is included in the Fines and Forfeitures section.

About 1 million passengers visited the state in large passenger vessels in FY 2015, and expectations are similar for FY 2016 and FY 2017. In recent years, the municipal share of the CPVT has been much larger than the state share. The Department of Revenue estimates the state share at \$2.2 million in FY 2016 and FY 2017 based on a model that assumes the number of visitors on commercial passenger vessels will stay constant.

## Corporate Income Tax

Alaska levies the corporate income tax (CIT) on corporations doing business in the state. Corporate tax rates are graduated according to the schedule in Table 5-3. S-corporations and limited liability companies (LLCs) that file federally as partnerships are generally exempt from corporate income tax. A corporation computes its tax liability based on the federal taxable

income of its water's edge combined report, with Alaska adjustments. Non-oil and gas corporations apportion their income to Alaska based on three factors: sales, property, and payroll. Alaska taxable income is determined by applying the calculated apportionment factor to the corporation's modified federal taxable income.

The department forecasts corporate income tax for non-oil companies using a regression model based on past collections, overall U.S. economic growth, and metal prices. Metal prices are used as a separate variable because mining accounts for much of the year-to-year variation in non-oil corporate income tax revenue. The result of the regression model is adjusted to account for tax credit activity anticipated in future years.

The Department of Revenue forecasts net revenue from the non-oil corporate income tax to drop from \$136 million in FY 2015 to about \$105 million in FY 2016 and FY 2017. Most of the predicted drop is due to lower metals prices. The rest is due to anticipated claims under the Oil and Gas Industry Service tax credit (refer to Chapter 8 for more information on this credit), which came into effect in 2014 but has not yet been used; the department forecasts this credit will reduce CIT revenue by \$5 million in each of FY 2016 and 2017.

## Fisheries Business Tax

The fisheries business tax (FBT) is levied on businesses that process fisheries resources in Alaska or export fisheries resources from Alaska. Although the tax is usually levied on the act of processing, the tax is often referred to as a "raw fish tax" because it is based on the value of the raw fishery resource. Tax rates vary from 1% to 5%, depending on whether a fish species is classified as "established" or "developing" in the geographic area where it was caught, and whether it was processed by a shore-based or floating processor. Revenue from the tax is deposited in the general fund. Fifty percent of the revenue (before credits) is shared with qualified municipalities and is treated as Other Restricted Revenue.

Tax credits for the FBT, including the Salmon and Herring Product Development credit, apply only to the state portion of the tax, so the department's forecast of the municipal share is usually higher than the state share. Forecasts of FBT revenue are based on estimated taxable values of the major fisheries in the state and historical effective tax rates. The FBT revenue in FY 2015 was lower than the previous year, in part due to the two-year fluctuation in pink salmon runs (the FY 2014 number reflected a record pink salmon harvest). In FY 2016, the state share of FBT revenue is projected to decline further as a result of increased

claims under the Salmon and Herring Product Development tax credit, which will likely continue in FY 2017. (Refer to Chapter 8 for more information on this credit.)

### **Fishery Resource Landing Tax**

The fishery resource landing tax is levied on fishery resources processed outside Alaska, but first landed in Alaska. Tax liability is based on the unprocessed statewide average price of the fish species. The tax is collected primarily from factory trawlers and floating processors that process fishery resources outside the state's 3-mile limit and bring their products into Alaska for shipment. The tax rates vary from 1% to 3%, based on whether the species is classified as "established" or "developing." All revenue derived from the tax is deposited in the general fund. Fifty percent of the revenue (before credits) is shared with qualified municipalities, and is treated as Other Restricted Revenue. As with the FBT, tax credits apply only to the state share.

The Department of Revenue forecasts fisheries resource landing tax revenue based on estimated taxable values of the major fisheries in the state and historical effective tax rates. Net landing tax revenue in FY 2015 was especially low due to one-time payment events, which particularly impacted the municipal share. Based on preliminary reports of fish caught in the 2015 season, the department expects landing tax revenue to return to its normal historical range in FY 2016 and FY 2017.

### **Insurance Premium Tax**

Insurance companies in Alaska pay an insurance premium tax instead of corporate income tax, sales, or other excise taxes. The tax is levied as a percentage of the total insurance premiums for policies in the state of Alaska. Revenue is deposited into the general fund, and for most types of insurance, the tax is treated as Unrestricted Revenue. Insurance premium taxes on worker's compensation insurance are deposited into a sub-fund of the general fund, the Workers' Safety and Compensation Fund, and are reflected as restricted in this forecast. The restricted component also includes service fees paid into the Workers Safety and Compensation Fund by employers who are uninsured or self-insured.

The forecast of insurance premium tax revenue are estimates provided by the Alaska Department of Commerce, Community, and Economic Development's Division of Insurance, which administers the insurance premium tax, and the Alaska Department of Labor and Workforce Development's Workers Com-

pensation Division, which collects worker's compensation service fees.

### **Marijuana Tax**

In November 2014, voters approved a ballot measure which will levy a new tax on the sale of marijuana. The tax rate is \$50 per ounce, paid on the sale of the product to a retail marijuana store or marijuana product manufacturing facility. The ballot measure took effect in February 2015; however, the department does not expect to collect the first tax revenue from legal marijuana businesses until FY 2017. The revenue from marijuana taxes is highly unpredictable because it is unknown how many marijuana businesses will be licensed to open, how many consumers there are, and what percentage of those will switch their consumption to the legal and taxable market. However, Department of Revenue officials have used a preliminary estimate of \$12 million in some previous presentations.

### **Mining License Tax**

The mining license tax (MLT) ranges from 0% to 7% of the net income of most mining operations in the state. New mining operations are exempt from the MLT for a period of 3.5 years after production begins. Sand and gravel operations are exempt from the mining tax.

This forecast uses a bottom-up approach to estimate tax payments for each of the major mines in the state based on expected minerals prices and production. MLT revenue increased from \$23.6 million in FY 2014 to \$38.6 million in FY 2015. Gold, zinc, and silver play the largest role in the MLT, as the largest mines in the state rely heavily on those three metals. The revenue increase was partly due to higher zinc prices as well as more production of zinc and lead, and partly because FY 2014 revenue was low due to one-time payment events. However, zinc prices have recently dropped again, so the Department of Revenue forecasts MLT revenue to decline again to \$24.4 million in FY 2016. The current consensus among analysts calls for zinc prices to continue dropping into calendar year 2016, which will further reduce MLT revenue in FY 2017. Gold and silver prices have suffered similar declines, further reducing MLT revenue.

### **Motor Fuel Tax**

The motor fuel tax (MFT) is imposed on all motor fuel sold, transferred, or used within Alaska. Per-gallon rates are \$0.08 for highway use, \$0.05 for marine fuel, \$0.047 for aviation gasoline, \$0.032 for jet fuel, and \$0.08 or \$0.02 for gasohol, depending on the season,

location, and U.S. Environmental Protection Agency mandate. Motor fuel taxes are collected primarily from wholesalers and distributors licensed as qualified dealers. Various uses of fuel are exempt from tax, including fuel used for heating or international flights. All revenue derived from motor fuel taxes is deposited in the general fund. Sixty percent of the revenue attributable to aviation fuel sales at municipal airports is shared with the respective municipalities and is treated as Other Restricted Revenue.

Revenue from the motor fuel tax rose from \$39.3 million in FY 2014 to \$41.8 million in FY 2015. In 2015, the Legislature altered the motor fuel tax to include a refined fuel surcharge of \$0.0095 per gallon on non-aviation fuel as well as certain non-motor fuels such as home heating oil. The surcharge is intended to benefit the Department of Environmental Conservation's Spill Prevention and Response program, but is officially part of the unrestricted motor fuel tax. This surcharge is projected to raise \$7.2 million in FY 2016. Aside from the surcharge, the Department of Revenue also forecasts a small increase in motor fuel tax revenue due to increased highway fuel consumption as prices have declined. These two factors together cause the motor fuel tax forecast to be \$51 million in both FY 2016 and FY 2017.

## Seafood Assessments and Taxes

The Department of Revenue administers five different programs that collect funds through seafood assessments and taxes. The rates for these assessments and taxes are determined by a vote of the appropriate association within the seafood industry, by members of the Alaska Seafood Marketing Institute, or by the Department of Revenue. The five programs are:

- The seafood marketing assessment, which applies to all seafood products made or first landed in Alaska and all unprocessed products exported from Alaska. It is currently a 0.5% assessment and supports the operations of the Alaska Seafood Marketing Institute.
- The dive fishery management assessment is levied on the value of fishery resources taken using dive gear in a designated management area. The current assessment rate is 5% for sea cucumbers and 7% for geoducks and sea urchins. Dive fishery taxes are based on the value of the fishery in the prior fiscal year.
- The regional seafood development tax, which is levied on the value of fishery resources in a designated management area. The current tax rate is 1% and covers drift and set gillnet operations in Prince William Sound, as well as drift gillnet

operations in Bristol Bay. Seafood development tax revenue is based on the estimated taxable value of seafood processed in Alaska.

- The salmon enhancement tax is levied on salmon sold or exported from designated aquaculture regions. The rate varies from 2-3% by location.
- The cost recovery fisheries assessment, a program authorized in 2006 that allows hatcheries to establish a common property fishery and recoup costs through an assessment on fishery resources taken in the terminal harvest area. This program was first used in 2012 for the Hidden Falls hatchery in Southeast Alaska.

Revenue received under these assessments is deposited in the general fund. Funds treated as Other Restricted Revenue in this forecast are set aside for appropriation for the benefit of the seafood industry, either in marketing or for management and development of the industry.

The estimated taxable value of Alaska's salmon fishery and historical effective tax rates are used to forecast salmon enhancement tax revenue. The department forecasts seafood assessments and taxes using the same estimates of fisheries values developed for the fisheries business and landing taxes.

## Tire Fee

The tire fee has two components. The first component is a fee of \$2.50 on all new tires sold in Alaska for motor vehicles intended for highway use. The second component is an additional \$5 fee per tire on all new tires with heavy studs sold in Alaska, and a \$5 fee per tire on the installation of heavy studs on a previously un-studded tire. Tires sold to federal, state, or local government agencies for official use are exempt from the fee, as well as certain tires with lightweight studs.

Forecasted revenue from the tire fee is based on the expected number of vehicle registrations in the state.

## Tobacco Tax

The tobacco tax is levied on cigarettes and tobacco products sold, imported, or transferred into Alaska. Tobacco taxes are collected primarily from licensed wholesalers and distributors. There are two components to the tobacco tax: the cigarette tax, and the other tobacco products tax.

The tax rate on cigarettes has been \$2.00 per pack since July 1, 2007. Of the cigarette tax, \$0.76 per pack is deposited into the School Fund, and is considered Designated Restricted Revenue. All cigarette and

tobacco products license fees are also deposited into the School Fund. The remainder of the cigarette tax revenue is deposited into the general fund. Of the general fund portion, 8.9% (\$0.11 per pack) is deposited into a sub-fund of the general fund, the Tobacco Use Education and Cessation Fund, and is treated as Designated Restricted Revenue.

The department's forecast for cigarette tax revenue is based on past rates of decline in cigarette consumption. In recent years, the total number of cigarettes purchased in Alaska has fallen by about 20 million per year, translating to a roughly \$2 million yearly decline in total cigarette tax revenue. Cigarette tax revenue was slightly lower than expected in FY 2015, and recent reports suggest cigarette sales in the U.S. have risen due to general economic trends (specifically the low price of oil). With these two factors in mind, the Department of Revenue forecasts a small uptick in cigarette tax revenue in FY 2016. This increase is followed by continued decline, as the overall trend of cigarette consumption remains downward.

The tax rate on other tobacco products, such as cigars and chewing tobacco, is 75% of the wholesale price and is deposited entirely in the general fund. The revenue from other tobacco products is projected to rise, due to moderate increases in both wholesale prices and consumption levels.

Certain cigarettes and tobacco are exempted from the tax: cigarettes and tobacco (1) transported into the state by an individual for personal consumption, (2) imported or acquired by one of the uniformed services of the United States, or (3) imported or acquired by federally recognized Indian tribes.

### **Vehicle Rental Tax**

Vehicle rental tax is a 10% tax on most passenger vehicle rentals of 90 days or less, and a 3% tax on rentals of recreational vehicles for 90 days or less. Exemptions include taxis, rentals to government agencies, and trucks used for transporting personal property.

Revenue from the vehicle rental tax is forecasted based on GDP growth, since most vehicle renters are tourists and tourism increases when the overall economy is strong. Although economic growth is expected to remain positive, vehicle rental tax revenue was unusually high in FY 2015, so the Department of Revenue forecasts a slight decline to match previous trends.

### **Charges for Services**

The charges for services category includes fees and other program charges for state services. Revenues

reported in this category do not include all charges for state services. This category only includes those services that do not fit into other categories in this report.

Most of these receipts are considered Restricted Revenue because they are returned to the program where they were generated. The only Unrestricted Revenue listed in this category comes from charges that do not have program receipt designations, or are not otherwise segregated and appropriated back to a program. Many of the charges for services are small amounts that the department has grouped into the broad categories "General Government," "Natural Resources" and "Other." Estimates for these categories are based on fiscal year-to-date collections and historical averages. Note that the "Natural Resources" category is reported as negative in FY 2015 because of a large year-to-year adjustment in the state accounting system. The largest categories of charges for services are listed separately and are discussed below.

### **Marine Highway Fund**

The Alaska Marine Highway Fund is a sub-fund of the general fund and receives revenue from state ferry system operations. Because revenue is customarily appropriated for Alaska Marine Highway operations, it is considered restricted revenue for this forecast. Revenue projections are based on revenue expectations provided by the Alaska Marine Highway Division within the Alaska Department of Transportation and Public Facilities.

### **Environmental Compliance Fund**

Commercial passenger vessel fees paid into the Environmental Compliance Fund come from two sources: Ocean Ranger fees, and environmental compliance fees. All fees paid into the fund are considered restricted for purposes of this forecast and are based on estimated cruise ship passenger levels. The Ocean Ranger fee is levied on each voyage in Alaska by commercial passenger vessels with 250 or more berths at a rate of \$4 per berth. The fee is levied to support the Ocean Ranger program, which provides for independent observers of engineering, sanitation and health practices aboard the vessels. This fee was imposed as part of a broader commercial passenger vessel-related initiative passed by voters in August 2006.

Environmental compliance fees are levied on commercial passenger vessels with over 50 berths. Fees range from \$75 to \$3,750 per vessel based on the number of berths, and funds are used to support environmental compliance programs.

# Revenue from Charges for Services

By restriction and source

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b><u>Unrestricted</u></b>			
<b>Unrestricted Revenue from Charges for Services</b>			
General Government	13.9	12.8	12.8
Natural Resources <sup>1</sup>	-0.6	2.6	2.6
Other	6.8	7.3	7.3
<b>Total Unrestricted Revenue from Charges for Services</b>	<b>20.1</b>	<b>22.7</b>	<b>22.7</b>
<b><u>Restricted</u></b>			
<b>Designated General Fund</b>			
DCCED Business Licenses	9.0	9.0	9.0
Environmental Compliance Fees	1.0	1.0	1.1
General Government – General Fund Subfunds	12.0	7.7	7.7
Marine Highway Receipts	53.7	57.5	48.5
Natural Resources	0.1	0.2	0.2
Ocean Ranger Fees	3.8	3.9	4.2
Oil and Gas Conservation	7.0	7.4	7.4
Regulatory Commission of Alaska Receipts	9.9	10.6	10.6
Receipt Supported Services	129.3	168.9	168.9
Timber Sale Receipts	1.6	0.9	0.9
<b>Subtotal Designated General Fund</b>	<b>227.4</b>	<b>267.1</b>	<b>258.5</b>
<b>Other Restricted</b>			
General Government – Special Funds	0.6	0.4	0.4
Statutorily Designated	44.7	82.0	82.0
<b>Subtotal Other Restricted</b>	<b>45.3</b>	<b>82.4</b>	<b>82.4</b>
<b>Total Restricted Revenue from Charges for Services</b>	<b>272.7</b>	<b>349.5</b>	<b>340.9</b>
<b>Total Revenue from Charges for Services</b>	<b>292.8</b>	<b>372.2</b>	<b>363.6</b>

<sup>1</sup> The Natural Resources category is reported as negative in FY 2015 because of a large year-to-year adjustment in the state accounting system.

# Fines and Forfeitures

By restriction

	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b>Unrestricted</b>			
<b>Unrestricted Revenue from Fines and Forfeitures</b>	<b>12.4</b>	<b>11.4</b>	<b>11.4</b>
<b>Restricted</b>			
<b>Designated General Fund</b>			
Tobacco Settlement (Tobacco Use Education and Cessation Fund)	5.8	5.8	5.7
Other – General Fund Subfunds	1.8	3.3	3.3
<b>Subtotal Designated General Fund</b>	<b>7.6</b>	<b>9.1</b>	<b>9.0</b>
<b>Other Restricted</b>			
Tobacco Settlement (Northern Tobacco Securitization Corporation)	23.3	23.1	22.9
Other – Special Revenue Funds	0.3	0.4	0.4
<b>Subtotal Other Restricted</b>	<b>23.6</b>	<b>23.5</b>	<b>23.3</b>
<b>Restricted Revenue from Fines and Forfeitures</b>	<b>31.2</b>	<b>32.6</b>	<b>32.3</b>
<b>Total Revenue from Fines and Forfeitures</b>	<b>43.6</b>	<b>44.0</b>	<b>43.7</b>

## Program Receipts

Under AS 37.05.142 – 37.05.146, receipts from authorized state programs are accounted for separately and appropriated to administer and implement laws related to the program, or cover costs associated with collecting the receipts. Some programs with program receipt authority are not included in the department's Charges for Services category because they are reported elsewhere in this forecast or because they do not generate revenue available for general appropriation.

Expected revenue from program receipts are based on discussions with the Governor's Office of Management and Budget and analysis of the most recent budget expectations for these categories.

Program receipts listed in this section are:

- Receipt supported services, which include state services such as Alaska Pioneer Homes and occupational licensing funded by program receipts.
- Statutorily designated program receipts, which include money received from sources other

than the state or federal government and restricted by the terms of a gift, grant, bequest, or contract.

- Regulatory Commission of Alaska receipts, which are regulatory cost charges and user fees levied on utilities and pipelines to fund costs of regulation.
- Timber sale receipts, which are used to fund the timber disposal program of the Alaska Department of Natural Resources.
- Oil and Gas Conservation Commission receipts, which are fees and charges for regulation of oil and gas wells and pipelines.
- Business license fees collected by the Alaska Department of Commerce, Community, and Economic Development.

## Fines and Forfeitures

Fines and forfeitures include civil and criminal fines and forfeitures and money received by the state from the

# Revenue from Licenses and Permits

By restriction and source

	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b><u>Unrestricted</u></b>			
<b>Unrestricted Revenue from Licenses and Permits</b>			
Alcoholic Beverage Licenses	1.3	1.3	1.3
Motor Vehicles	29.5	38.0	35.5
Other Fees	3.6	3.2	3.2
<b>Total Unrestricted Revenue from Licenses and Permits</b>	<b>34.4</b>	<b>42.5</b>	<b>40.0</b>
<b><u>Restricted</u></b>			
<b>Designated General Fund</b>			
<b>Other Fees – General Fund Subfunds</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>
<b>Other Restricted</b>			
Alcoholic Beverage License Share	0.9	0.9	0.9
Hunting and Fishing Fees (Fish and Game Fund)	28.0	27.5	27.5
Other Fees – Special Revenue Funds	5.0	4.0	4.0
<b>Subtotal Other Restricted</b>	<b>33.9</b>	<b>32.4</b>	<b>32.4</b>
<b>Total Restricted Revenue from Licenses and Permits</b>	<b>34.0</b>	<b>32.6</b>	<b>32.6</b>
<b>Total Revenue from Licenses and Permits</b>	<b>68.4</b>	<b>75.1</b>	<b>72.6</b>

settlement of civil lawsuits. The largest single source of receipts under this category is the multi-state tobacco settlement often referred to as the Master Settlement Agreement. Other sources are forecast based on fiscal year-to-date collections and historical averages.

## Tobacco Settlement

The tobacco Master Settlement Agreement was signed by 46 states, including Alaska, in November 1998 and dictates annual payments to each of the states. Eighty percent of the settlement revenue is earmarked for the Northern Tobacco Securitization Corporation for payments on bonds that were sold based on the future revenue stream. The revenue for these bonds is considered Other Restricted Revenue. The remaining 20% of the revenue is deposited into the Tobacco Use Education and Cessation Fund, a sub-fund of the general fund, and that 20% is considered Designated General Fund Revenue.

Tobacco settlement payments are based on a complex formula that takes into account several factors

including declines in cigarette consumption, inflation, and certain adjustments for litigation expenses and market share losses related to the settlement.

## Licenses and Permits

Licenses and permits represent revenue derived from charges for participating in activities regulated by the state. The majority of the receipts under this category are from motor vehicle registration and fishing and hunting license fees. Several other small license and permit fees are summarized in the Other Fees category. Alcoholic beverage license fees are forecast separately.

## Alcoholic Beverage Licenses

Alcoholic beverage licenses are required to manufacture or sell alcoholic beverages in Alaska. Licenses are issued by the Alcoholic Beverage Control Board and revenue is deposited into the general fund. All the revenue from biennial license fees collected within municipalities, excluding annual wholesale fees and

# Revenue from Rents and Royalties

By restriction and source

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b><u>Unrestricted</u></b>			
<b>Unrestricted Revenue from Rents and Royalties</b>			
Mining Rents and Royalties	17.0	15.8	15.8
Other Non-Petroleum Rents and Royalties	19.3	15.0	15.0
<b>Total Unrestricted Revenue from Rents and Royalties</b>	<b>36.3</b>	<b>30.8</b>	<b>30.8</b>
<b><u>Restricted</u></b>			
<b>Designated General Fund</b>			
Other Non-Petroleum Rents and Royalties	3.4	4.2	4.2
<b>Other Restricted</b>			
Mining Rents and Royalties	6.0	6.9	6.9
<b>Total Restricted Revenue from Rents and Royalties</b>	<b>9.4</b>	<b>11.1</b>	<b>11.1</b>
<b>Total Revenue from Rents and Royalties</b>	<b>45.7</b>	<b>41.9</b>	<b>41.9</b>

biennial wholesale license fees, is shared with the municipalities and treated as other Restricted Revenue for purposes of this forecast. The department expects little change in revenue because the issuance of alcoholic beverage licenses is limited based on population, and population growth is relatively steady.

## Hunting and Fishing License Fees

Hunting and fishing licenses are issued by the Alaska Department of Fish and Game for participation in various hunting, fishing, and other related activities. The majority of this revenue is appropriated to a special revenue fund called the Fish and Game Fund and is classified as Other Restricted Revenue. Money in the fund can only be spent for fish and game management purposes. Forecasts of revenue from hunting and fishing license fees are provided by the Alaska Department of Fish and Game.

## Motor Vehicle Registration Fees

Motor vehicle registration fees are collected by the Division of Motor Vehicles within the Department of Administration. Most fees are considered unrestricted

license and permit revenue; however, some registration fees are considered restricted receipt supported services and are reflected in the Charges for Services section. Historical and forecasted revenue from motor vehicle registration fees is based on data provided by the Division of Motor Vehicles.

## Rents and Royalties

Rents and royalties from sources other than oil and gas fall into two categories: mining rents and royalties, and other non-petroleum rents and royalties. All rents and royalties from oil and gas are reported in the Oil Revenue section (Chapter 4).

### Mining Rents and Royalties

As with oil and gas production, the state earns revenue from other mineral production that occurs on state lands leased for exploration and development. As the landowner, the state earns revenue from leases as: (1) up-front bonuses, (2) annual rent charges, and (3) as a retained royalty interest in minerals production.

Revenue received from mining rents and royalties is deposited as follows: between 25% and 50% into

# Miscellaneous and Transfer Revenues

By restriction and source

	Millions of Dollars		
	History	Forecast	
Fiscal Year	2015	2016	2017
<b><u>Unrestricted</u></b>			
<b>Unrestricted Miscellaneous and Transfer Revenues</b>			
Miscellaneous	16.4	21.6	21.6
Alaska Housing Finance Corporation	3.1	8.7	13.4
Alaska Industrial Development and Export Authority <sup>1</sup>	10.2	17.7	17.7
Alaska Municipal Bond Bank Authority	0.0	0.9	0.9
Alaska Student Loan Corporation	0.6	0.0	0.0
Alaska Energy Authority	0.2	1.0	1.0
Mental Health Trust	0.0	0.0	0.0
Unclaimed Property	7.0	6.0	8.0
<b>Total Unrestricted Miscellaneous and Transfer Revenues</b>	<b>37.5</b>	<b>55.9</b>	<b>62.6</b>
<b><u>Restricted</u></b>			
<b>Designated General Fund</b>			
Miscellaneous – General Fund Subfunds <sup>2</sup>	22.9	18.8	18.8
<b>Other Restricted</b>			
Miscellaneous – Special Revenue Funds <sup>2</sup>	6.9	6.8	6.8
<b>Total Restricted Miscellaneous and Transfer Revenues</b>	<b>29.8</b>	<b>25.6</b>	<b>25.6</b>
<b>Total Miscellaneous and Transfer Revenues</b>	<b>67.3</b>	<b>81.5</b>	<b>88.2</b>

<sup>1</sup> As of Dec. 8, 2015, the AIDEA dividend for FY 2017 is expected to be \$6.3 million. This information was received after compiling the fall 2015 revenue forecast, and will be incorporated into the spring 2016 update.

<sup>2</sup> These funds represent revenue shown under account codes for "other" or "contributions" in the Alaska State Accounting System for General Fund subfunds and special revenue funds.

the Permanent Fund, 0.5% into the School Fund, and the remainder into the general fund. The Permanent Fund and School Fund portions are treated as Other Restricted Revenue.

Predicted revenue from mining rents and royalties is based on a recent average of revenue in past years.

## Other Non-Petroleum Rents and Royalties

The state receives revenue from the leasing, rental, and sale of state land. While all of this revenue is deposited into the general fund, some is deposited into sub-funds of the general fund and is treated as Designated General Fund Revenue for purposes of this forecast. This category includes revenue from

leasing, rental, and the sale of state land that does not fall into the oil and gas or mining royalty categories. Other non-petroleum rents and royalties are based on analysis of fiscal year-to-date and historical collections.

## Miscellaneous and Transfer Revenues

This category includes unclaimed property transfers, transfers to the state from component organizations, and miscellaneous revenue. Projections of miscellaneous revenue, which include contributions to the state and other revenue, are based on analysis of fiscal year-to-date and historical collections. Unclaimed

property and transfers from component organizations are discussed below.

## **Unclaimed Property**

Alaska's unclaimed property statutes require businesses and corporations to report unclaimed intangible property to the state. Property is reportable if an owner cannot be located, the owner has not cashed a property check, or an account has not had any owner-initiated activity for at least three years. Unclaimed property may include checking accounts, customer deposits and over-payments, gift certificates, unpaid wages, and security-related accounts. The state holds the property in trust until the owner or his or her legal heir claims it. Each year the unclaimed property trust account is evaluated and the excess of the working trust balance is transferred to the general fund.

## **Transfers from Component Organizations**

Each year, the state receives money in the form of transfers from component organizations, such as the

Alaska Housing Finance Corporation and the Alaska Industrial Development and Export Authority, frequently in the form of dividends. Component organizations are covered in more detail in Chapter 10, State Entities. Some component organizations do not make transfers to the state and, as a result, not all component organizations are listed here.

Actual transfers for FY 2015 are reflected in draft tables from the Department of Administration's Comprehensive Annual Financial Report. Forecasts for FY 2016 and FY 2017 transfers are based on discussions with the Governor's Office of Management and Budget, and analysis of the most recent budget expectations for these categories.

Transfers from component organizations presented under this category may differ from those presented in the State Entities section for two reasons: (1) amounts in this section account differently for funds paid over time for multi-year capital projects, and (2) amounts in this section include funds that are transferred to the state and then appropriated to the component unit for operations.



# Chapter 6 Federal Revenue

## General Discussion

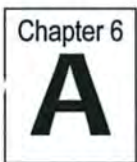
The federal government continues to play a significant role in Alaska's economy. In FY 2015, the State of Alaska was authorized for \$3.1 billion in federal funds; however, only \$2.5 billion in funds were received, constituting roughly 29% of total state revenue. This federal funding is generally restricted to specific uses such as road improvements, Medicaid payments, and aid to schools. Potential changes to federal law, differing federal and state fiscal years, and varying numbers of eligible Alaskans in certain programs make forecasting federal revenue difficult.

## Forecast

Estimates of FY 2016 and FY 2017 receipts come from the Office of Management and Budget in the

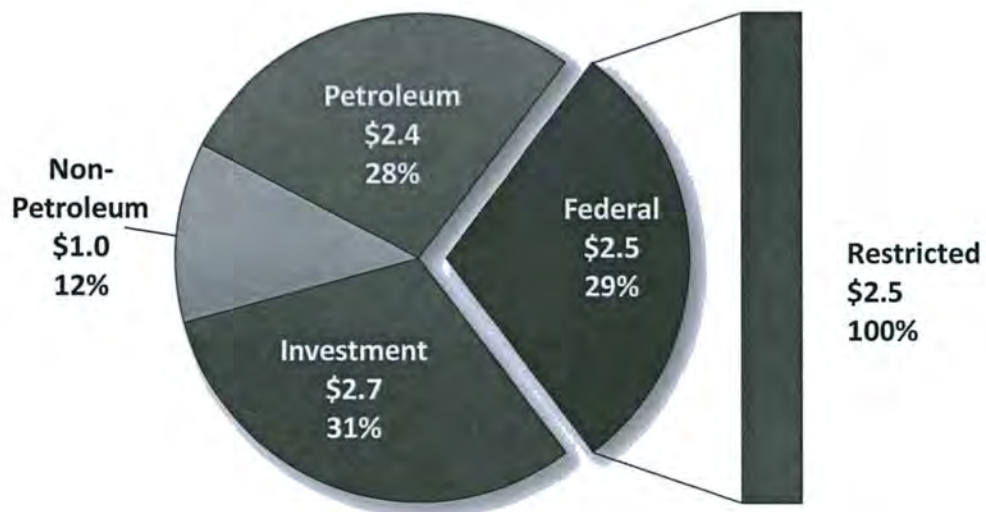
Governor's Office and are based on state agency projections of potential federal revenue. Table 6-1 provides the FY 2015 actual and FY 2016-2017 forecasts.

During FY 2016, the State of Alaska is authorized to receive nearly \$3.3 billion in federal funds. It is important to note that the Legislature authorizes state agencies to receive and spend the maximum that federally funded programs might receive, while actual appropriation amounts are historically 20% to 30% lower. In addition, some of the funding granted for multi-year capital projects is received and spent in years following the year in which the money is procured. All federal funds, whether spent in the operating or capital budget, are limited in how they may be used; therefore, they are shown as Restricted Revenue.



## FY 2015 Federal Revenue

By restriction and type, in billions of dollars



# Total Federal Revenue

By restriction

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017

## Unrestricted General Fund

Federal Receipts	0.0	0.0	0.0
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## Restricted (Federal)

Federal Receipts Authorization <sup>1</sup>	2,512.7	3,290.2	3,290.2
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## Total Federal Revenue

2,512.7 3,290.2 3,290.2

<sup>1</sup>This amount includes federal receipts other than Alaska's share of the royalties from the National Petroleum Reserve-Alaska, which are presented in Chapter 2.

# Budgeted State Matching Requirement

Top spending categories

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017

## State Matching Requirement

Operating Budget	608.4	602.9	607.8
Capital Budget	66.1	74.2	74.0

## Total Matching Requirement

674.5 677.1 681.8

## Top Spending Categories

Transportation Projects	1,011.6	1,130.3	950.5
Medicaid	966.3	1,111.7	1,111.7
Education (K-12, University of Alaska)	384.7	382.9	382.9

Source: Office of Management and Budget, Office of the Governor.

## State Matching

Most federal funding requires state matching. The state match for federal spending in FY 2015 and the enacted FY 2016 budgeted amount are included in Table 6-2. Overall, in FY 2015, Alaska spent \$674.5 million and received \$2.5 billion to fund specific programs. This means Alaska received roughly \$3.73 in federal funds for each dollar it spent in matching state funds.

## Distribution of Restricted Revenue

Of the federal funds the state was authorized to receive in FY 2015, 64% (\$2.0 billion) was authorized to the operating budget and the remaining 36% (\$1.1 billion) to the capital budget. Medicaid, through the Alaska Department of Health and Social Services, received 38% of the total federal funds (\$966 million out of \$2.5 billion) that the state actually received, making it the largest destination for federal funds

within the operating budget. The Alaska Department of Education & Early Development, and the University of Alaska were other major recipients, together receiving 15% of total federal funds (\$385 million).

In the capital budget, the Alaska Department of Transportation and Public Facilities is the dominant

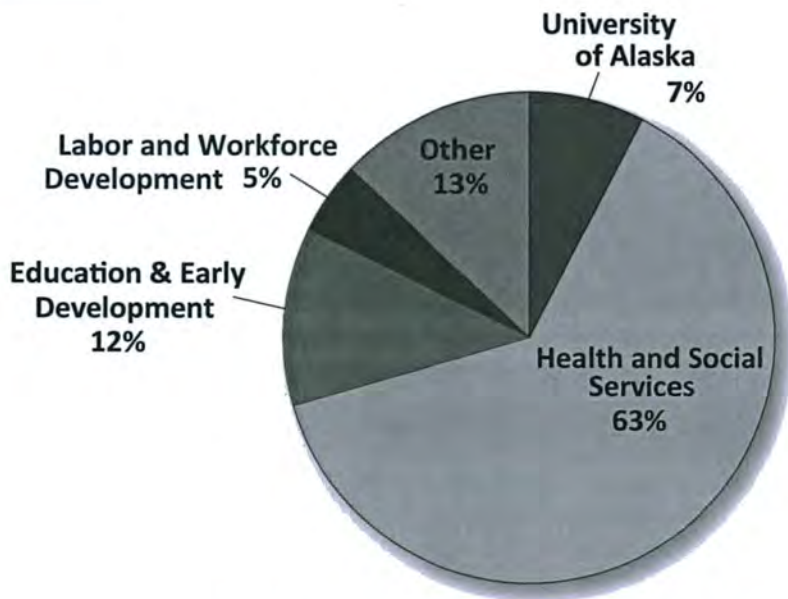
destination for federal funds, receiving about 40% of total federal funds (\$1.0 billion) in FY 2015.

Figure 6-B illustrates a more detailed distribution of federal funds the state was authorized to receive; the distribution of funds actually received may differ slightly.

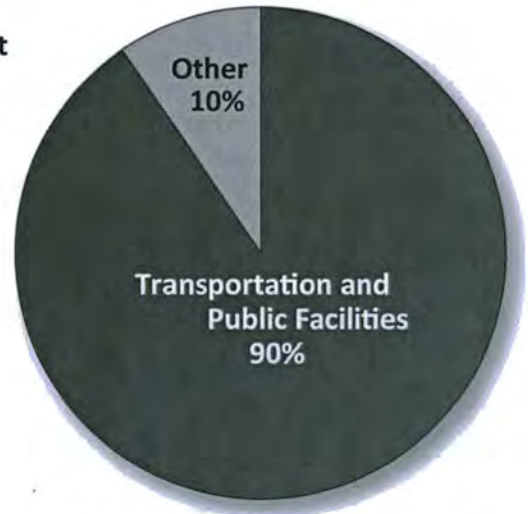
Chapter 6  
**B**

## FY 2015 Federal Revenue Allocation

Revenue in operating and capital budgets, by recipient agency



Federal Revenue in the State's Operating Budget



Federal Revenue in the State's Capital Budget

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## Chapter 7

# Investment Revenue

The total investment revenue for FY 2015 was approximately \$2.7 billion, with nearly all of it classified as restricted revenue as shown in Figure 7-A. The majority (90%) of revenues from investments in FY 2015 were from the Alaska Permanent Fund. Table 7-1 shows there are higher investment returns forecasted for FY 2016-2017, primarily from the Alaska Permanent Fund.

To forecast investment revenue, the Department of Revenue combined actual performance through Sept. 30, 2015, with a projection for the remainder of the fiscal year. Forecasts and capital-market median returns are based on information provided in the five- to 10-year capital-market returns projection, provided by the state's investment consultant, Callan Associates, Inc.

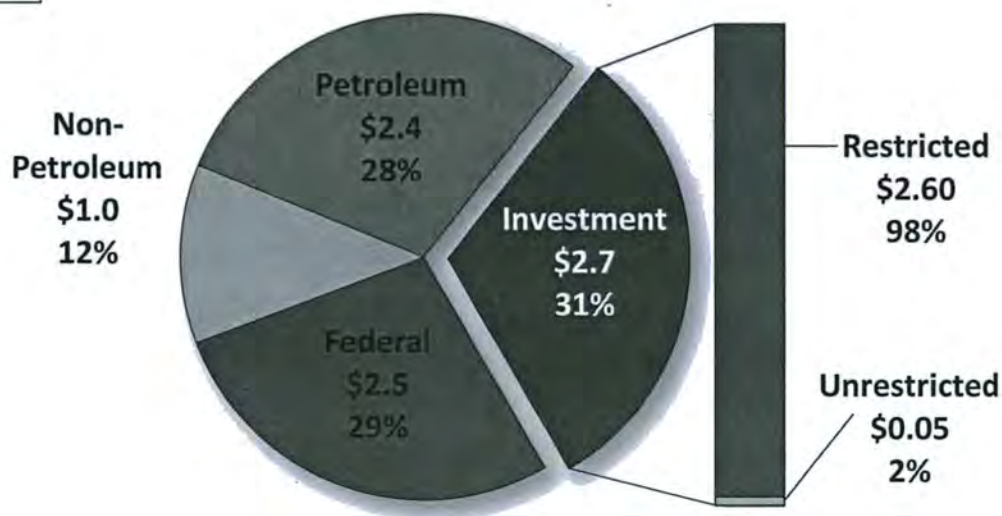
Table 7-2 shows a summary of Callan's long-term capital-market projections, as well as the benchmark against which performance for a specific asset class is measured in the state portfolios. The column titled, "Projected Returns" is the estimated annual rate of return. The numbers in the "Projected Risk" column represent a statistical measure called standard deviation, which is the most commonly used measure of risk in the investment world. The standard deviation is a measure of the dispersion of data around its mean.

The analyst can use the standard deviation to provide a range of possible outcomes at any desired level of confidence. With a bell-curve (normal) distribution, approximately 68% of the observed outcomes are expected to be one standard deviation from the mean. A greater level of confidence (for instance,

Chapter 7  
**A**

### FY 2015 Investment Revenue

By restriction and type, in billions of dollars



# Total Investment Revenue<sup>1</sup>

By restriction and detail, in millions of dollars

	Millions of Dollars		
	History	Forecast	
Fiscal Year	2015	2016	2017
<b><u>Unrestricted</u></b>			
<b>Unrestricted Investment Revenue</b>			
Investments	46.3	19.7	36.5
Interest Paid by Others	1.6	1.6	1.6
<b>Total Unrestricted Investment Revenue</b>	<b>47.9</b>	<b>21.3</b>	<b>38.1</b>
<b><u>Restricted</u></b>			
<b>Designated General Fund Revenue</b>			
Investments – Designated General Fund <sup>2</sup>	2.0	1.8	2.9
Other Treasury Managed Funds	15.7	5.0	34.9
<b>Subtotal Designated General Fund</b>	<b>17.7</b>	<b>6.8</b>	<b>37.8</b>
<b>Other Restricted</b>			
Investments – Other Restricted	4.1	3.7	5.9
Constitutional Budget Reserve Fund	197.7	65.5	95.8
Alaska Permanent Fund (realized earnings)	2,931.4	3,354.4	3,403.5
Alaska Permanent Fund (unrealized earnings)	-547.5	349.8	803.8
<b>Subtotal Other Restricted Revenue</b>	<b>2,585.7</b>	<b>3,773.4</b>	<b>4,309.0</b>
<b>Total Restricted Investment Revenue</b>	<b>2,603.4</b>	<b>3,780.2</b>	<b>4,346.8</b>
<b>Total Investment Revenue</b>	<b>2,651.3</b>	<b>3,801.5</b>	<b>4,384.9</b>

<sup>1</sup> Governmental Accounting Standards Board (GASB) principles require the recognition of changes in the value of investments as income or losses at the end of each trading day, whether the investment is actually sold or not.

<sup>2</sup> Includes subfunds of the General Fund.

95%) would require a broader range (two standard deviations).

For example, Callan estimates an average annual return for the Domestic Fixed Income asset class of 3.00% and a projected risk for that asset class of 3.75%. That means Callan is forecasting, with a normal distribution, the annual return for the Domestic Fixed Income asset class will fall between -0.75% and 6.75% (one standard deviation). A prediction at 95% confidence would run from -4.50% to 10.50% (plus or minus two standard deviations from the mean), and is too broad a range to be useful. The probability that a particular asset class or portfolio will have a negative

return over a given period of time reflects the downside risk of the asset class or portfolio.

## Unrestricted Investment Revenue

“Unrestricted Investment Revenue” is earned on some of the funds invested through the GeFONSI (General Fund and other non-segregated investments<sup>1</sup>) pool.

<sup>1</sup> The Department of Revenue invests general fund cash balances alongside cash balances from certain other funds, in a single investment pool. This general fund investment pool is referred to as GeFONSI, which is the acronym for “General Fund and other non-segregated investments.” Earnings from the GeFONSI investment pool are primarily unrestricted revenue, but also include some restricted revenue from balances in general fund subfunds and special revenue funds.

# 2015 Summary of Callan Associates, Inc.

## Long-term capital market projections

Asset Class	Benchmark for Asset Class	Projected Return: 10-Year Geometric <sup>1</sup>	Projected Risk: Standard Deviation	Percent Projected Return within One Standard Deviation										
				-30	-20	-10	0	10	20	30	40			
<b>Equities</b>														
Broad Domestic Equity	Russell 3000 Index	7.60%	19.00%											
Global ex-US Equity	MSCI ACWI ex-USA	7.80%	21.45%											
International Equity	MSCI EAFE	7.50%	20.20%											
<b>Fixed Income</b>														
Domestic Fixed	Barclays Aggregate	3.00%	3.75%											
High Yield	Barclays High Yield	5.00%	11.10%											
Government 1-3	Barclays Gov't 1-3 Year	2.40%	2.25%											
TIPS	Barclays TIPS	3.00%	5.30%											
Long Duration	Barclays Long Gov't / Credit	3.20%	11.40%											
Non-U.S. Fixed	Citi Non-USD World Gov't	2.30%	9.40%											
Emerging Market Debt	JPM EMBI Global Div.	4.70%	10.00%											
<b>Other</b>														
Private Equity	TR Post Venture Cap	8.50%	33.05%											
Real Estate	Callan Real Estate	6.15%	16.50%											
Hedge Funds	Callan Hedge FoF	5.25%	9.30%											
Commodities	DJ-UBS Commodity	2.75%	18.50%											
Cash Equivalent	90-Day T-Bill	2.25%	0.90%											
Inflation	CPI-U	2.25%	1.50%											

<sup>1</sup>Geometric returns are derived from arithmetic returns and associated risk (standard deviation).

These funds are managed by the Treasury Division of the Department of Revenue. "Interest Paid by Others" is interest received by the state that does not fall under other categories. Oil and gas royalty interest, production tax interest, and corporate income tax interest are included in the Oil Revenue section of this forecast.

### Restricted Investment Revenue

"Restricted Investment Revenue" consists of earnings from governmental funds, the Constitutional Budget Reserve Fund (CBRF – Main), other Treasury Divi-

sion-managed governmental funds, and the Alaska Permanent Fund.

The application of Callan's five- to 10-year capital-market returns projection to the Alaska Permanent Fund Corporation's current asset allocation results in a 6.55% median expected total return. These estimates result in forecasted earnings of \$3.7 billion for FY 2016 and \$4.2 billion for FY 2017. Actual net income returns for FY 2015 were \$2.4 billion, \$0.7 billion below the spring 2015 forecast. This highlights the effect that unanticipated market fluctuations have on the earnings of the fund.

# General Fund Investment Pool Revenues

Includes non-segregated investments invested alongside general fund

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017

## Unrestricted

<b>Unrestricted Investment Revenue</b>	46.3	19.7	36.5
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## Restricted

### **Restricted Investment Revenue**

Designated General Fund <sup>1</sup>	2.0	1.8	2.9
Investments – Other Restricted	4.1	3.7	5.9

<b>Total</b>	<b>52.4</b>	<b>25.2</b>	<b>45.3</b>
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<sup>1</sup> Includes subfunds of the general fund.

Revenue attributable to the Alaska Permanent Fund is shown as Other Restricted revenue in this forecast, consistent with the presentation for the department's previous *Revenue Sources Books*. However, Permanent Fund earnings are separated into two components.

"Realized earnings" represent gains or losses from the sale of assets, dividends received, and interest earned from assets held by the fund. Though shown in the Other Restricted category due to historical practice, realized earnings are technically available for appropriation by the Alaska Legislature with a majority vote. "Unrealized earnings" represent gains or losses in the value of assets that have not yet been sold and therefore do not impact revenue available for appropriation. The total revenue attributable to the Permanent Fund, per Governmental Accounting Standards Board principles, is the sum of these two categories.

### **Expected Lifetime of the CBRF**

As approved by voters in 1990, all receipts from oil and gas tax and royalty settlements are deposited into the CBRF after deduction of any applicable portion to the Permanent Fund and Public School Trust Fund. From the CBRF's inception, contributions to the fund, net of withdrawals, totaled approximately \$4.0 billion. With total investment earnings of \$5.1 billion, the net asset value of the CBRF was \$9.1 billion on Sept. 30, 2015. In 2014, the Legislature approved a \$3 billion transfer from the CBRF to the Public Employees' Retirement System and Teachers' Retirement System.

This transfer as well as additional withdrawals which were authorized in 2015 to balance the FY 2016 budget will need to be paid back to the CBRF under law.

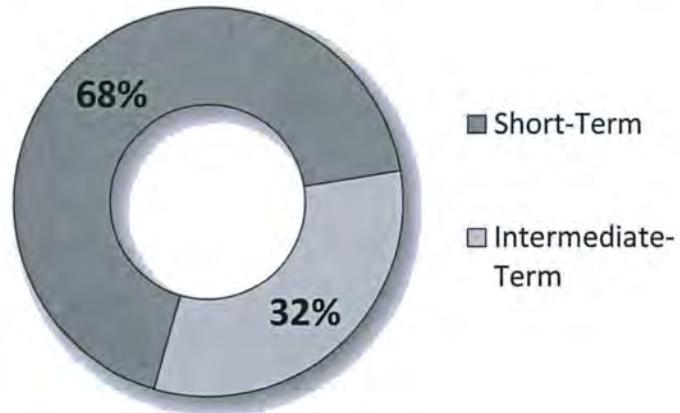
Table 7-11 is a matrix that estimates the time period when the CBRF would be depleted, depending on the price of oil, percent change in the budget, and the current production forecast. On the right side of the matrix are estimates based on the official price forecast for Fall 2015. In the event of a budget deficit, the table estimates all draws are taken from the CBRF to balance the budget, but actual funding used to balance the state's budget may differ.

Table 7-11 shows that, given the current oil price and production forecast and an assumption of 2% annual budget decreases from FY 2017 levels, the CBRF would be depleted in November 2018. However, projecting out an oil price of \$90 with the current production forecast, and an assumption of 2% budget decreases, the CBRF could be depleted in November 2020.

Chapter 7  
**B**

## General Fund Investment Pool

Moderate risk: short to intermediate horizon



Short-term: three-month U.S. T-Bill. Intermediate-term: Barclays one- to three-year Government Bond Index.

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**4**

## General Fund Investment Pool

Asset allocation and summary

Treasury Pool	Target Percent Allocation	Performance Benchmark
Liquidity Pool / Short-term Fixed Income Pool	68%	Three-month U.S. Treasury Bill
Intermediate-Term Fixed Income Pool	32%	Barclays 1-3 Year Gov't Bond Index
Bank Bonds	0%	Allocation up to 2%
T-Bills, T-Notes, T-Bonds or Federal Agency Debentures	0%	Allocation up to 2%
Broad Fixed Income	0%	Allocation up to 10%
Investment Balance: Sept. 30, 2015	\$4,990.8	million
Long-Term Expected Rate of Return	2.30%	Callan's returns
Probability of Negative Return Over 1 Year	1.79%	

Chapter 7  
**5**

## Statutory Budget Reserve Fund<sup>1</sup>

Asset allocation and summary

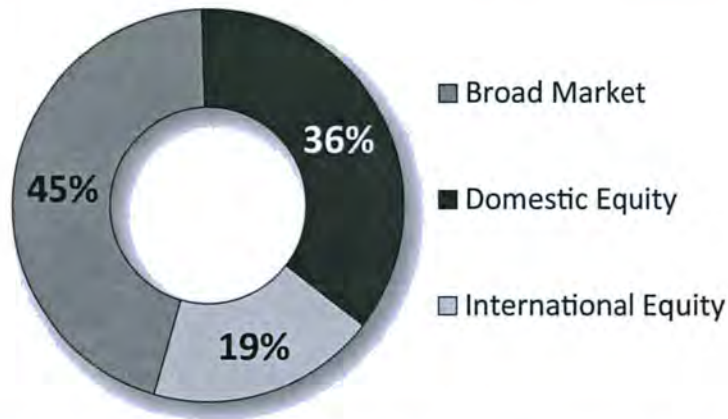
<b>Investment Balance:</b> Sept. 30, 2015 <sup>2</sup>	<b>\$0.0</b>	<b>million</b>
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<sup>1</sup> The Statutory Budget Reserve Fund (SBRF) was segregated from the general fund and given its own asset allocation July 1, 2013.

<sup>2</sup> The SBRF balance at Sept. 30, 2015, reflects draws for general fund cash needs. For more information on the General Fund Sufficiency Balance, go to [http://treasury.dor.alaska.gov/Portals/0/docs/cash\\_management/fy16a.pdf](http://treasury.dor.alaska.gov/Portals/0/docs/cash_management/fy16a.pdf).

## Public School Trust Fund – Principal Assets

Moderate risk: long-term investment horizon



Broad Market: Barclays U.S. Aggregate. Domestic Equity: Russell 3000 Index. Intermediate-term: Barclays one-to three-year Government Bond Index.

## Public School Trust Fund

Asset allocation and summary

Treasury Pool	Target Percent Allocation	Performance Benchmark
Broad Market Fixed Income Pool	45%	Barclays U.S. Aggregate
Domestic Equity Pool	36%	Russell 3000 Index
International Equity Pool	19%	MSCI EAFE
Short-Term Fixed Income Pool	0%	Allocation up to 2%
Public School Fund Balance: Sept. 30, 2015	\$567.7	million
Long-Term Expected Rate of Return	6.07%	Callan's returns
Probability of Negative Return Over 1 Year	27.94%	

## Public School Trust Fund

Revenue, in millions of dollars

Fiscal Year	Millions of Dollars		
	History 2015	Forecast 2016	2017

### Restricted

#### Restricted – Designated General Fund

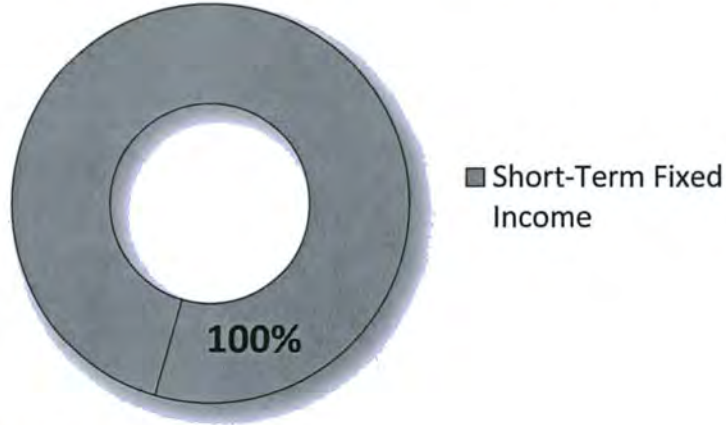
Public School Trust Fund Total Investment Income	15.7	5.0	34.9
Public School Trust Fund Income Distributed <sup>1</sup>	12.1	13.0	13.8

<sup>1</sup>Public School Trust Fund Income Distributed reflects the Alaska Department of Education & Early Development's Actual and Projected Appropriations.

**D**

# Public School Trust Fund – Income Assets

Low risk: short-term investment horizon

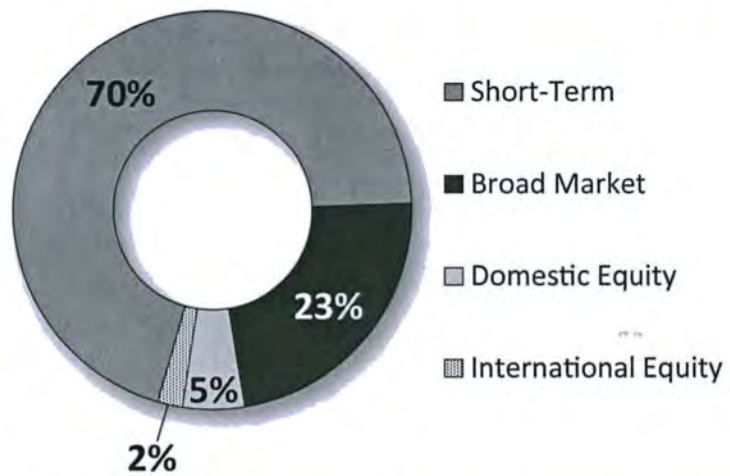


Short-term: three-month U.S. T-Bill.

**E**

# Constitutional Budget Reserve Fund

Main account, moderate risk: intermediate horizon



Short-term: three-month U.S. T-Bill. Broad Market: Barclays U.S. Aggregate. Domestic Equity: Russell 3000. International Equity: MSCI EAFE.

## Constitutional Budget Reserve Fund

Main account, asset allocation and summary

Treasury Pool	Target Percent Allocation	Performance Benchmark
Short-Term Fixed Income Pool	70%	Three-month U.S. Treasury Bill
Broad Market Fixed Income Pool	23%	Barclays U.S. Aggregate
Domestic Equity Pool	5%	Russell 3000
International Equity Pool	2%	MSCI EAFE
Bank Bonds	0%	Allocation up to 2%
Regular Account Balance: Sept. 30, 2015	\$9,089.9	million
Long-Term Expected Rate of Return	2.89%	Callan's returns
Probability of Negative Return Over 1 Year	5.96%	

## Constitutional Budget Reserve Fund

Revenue, in millions of dollars

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017

### Restricted

#### **Restricted – Other Restricted**

Regular Account	18.4	65.5	95.8
Special Subaccount	179.3	-	-
<b>Total</b>	<b>197.7</b>	<b>65.5</b>	<b>95.8</b>

# Constitutional Budget Reserve Fund

Cash flows, in millions of dollars

	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
<b>Beginning Cash Balance CBRF</b>	<b>11,564.4</b>	<b>10,101.4</b>	<b>7,030.7</b>
<b>Beginning Main Account Balance</b>	<b>6,057.8</b>	<b>10,101.4</b>	<b>7,030.7</b>
Earnings on Main Account Balance <sup>1</sup>	18.4	65.5	95.8
Petroleum Tax, Royalty Settlements <sup>2,3</sup>	149.0	20.0	20.0
(Loan to General Fund)/Repayment to CBRF	-	-	-
Draw from/to General Fund	-	(3,163.2)	(3,087.1)
Net Contribution (Withdrawal)	3,876.2	7.0	-
<b>Ending Main Account Balance</b>	<b>10,101.4</b>	<b>7,030.7</b>	<b>4,059.4</b>
<b>Beginning Special Subaccount Balance</b>	<b>6,721.9</b>	-	-
Earnings on Special Subaccount Balance <sup>1</sup>	179.3	-	-
Net Contribution (Withdrawal)	(6,901.2)	-	-
<b>Ending Special Subaccount Balance</b>	-	-	-
<b>Total CBRF Balance</b>	<b>10,101.4</b>	<b>7,030.7</b>	<b>4,059.4</b>

<sup>1</sup> The long-term earnings estimate for the main account is 2.89%. These projections are based on 2015 Callan's capital market assumptions and Department of Revenue, Treasury Division's asset allocation.

<sup>2</sup> Settlement estimates are provided by the departments of Revenue and Law, net of annual Federal Minerals Management Service payments.

<sup>3</sup> The petroleum tax, royalty settlements number on this sheet is shown on a cash basis. Please note the State of Alaska accounting system numbers presented elsewhere in this book include accruals and therefore may differ from the numbers presented here.

# Constitutional Budget Reserve Fund Depletion Date<sup>1</sup>

Based on range of oil price and budget options

Annual State Budget Percent Change Starting FY 2017	Fiscal Model of Oil Revenue and CBRF Performance at Selected Prices (Dollars per Barrel starting Fiscal Year 2017) <sup>2</sup>						Fall 2015 Oil Price Forecast <sup>3</sup>
	\$40	\$50	\$60	\$70	\$80	\$90	
-4%	Jul-2018	Sep-2018	Feb-2019	Jul-2019	Dec-2019	Sep-2021	Feb-2019
-2%	Jul-2018	Aug-2018	Nov-2018	Mar-2019	Aug-2019	Nov-2020	Nov-2018
0%	Jul-2018	Aug-2018	Oct-2018	Feb-2019	Jul-2019	Aug-2020	Nov-2018
2%	Apr-2018	Jul-2018	Aug-2018	Oct-2018	Feb-2019	Nov-2019	Aug-2018
4%	Mar-2018	Jun-2018	Aug-2018	Sep-2018	Dec-2018	Aug-2019	Jul-2018
6%	Feb-2018	Apr-2018	Jul-2018	Aug-2018	Oct-2018	Jul-2019	Jul-2018

<sup>1</sup> Based on the current forecast and the assumption that in the occurrence of a budget deficit, the CBRF would be drawn down.

<sup>2</sup> Matrix allows reader to select specific fiscal year price (from FY 2017-beyond), with anticipated percent change in budget (from FY 2017-beyond) to determine CBRF exhaustion date. Fall 2015 forecasted production volumes are used. A date of Jun-2026 indicates that the CBRF does not run out before that date.

<sup>3</sup> See Table 4-4 for Fall 2015 oil price forecast used in base scenario.

## Alaska Permanent Fund

Revenue, in millions of dollars

Fiscal Year	Millions of Dollars		
	History 2015	Forecast 2016 2017	

### Restricted

#### Restricted – Other Restricted

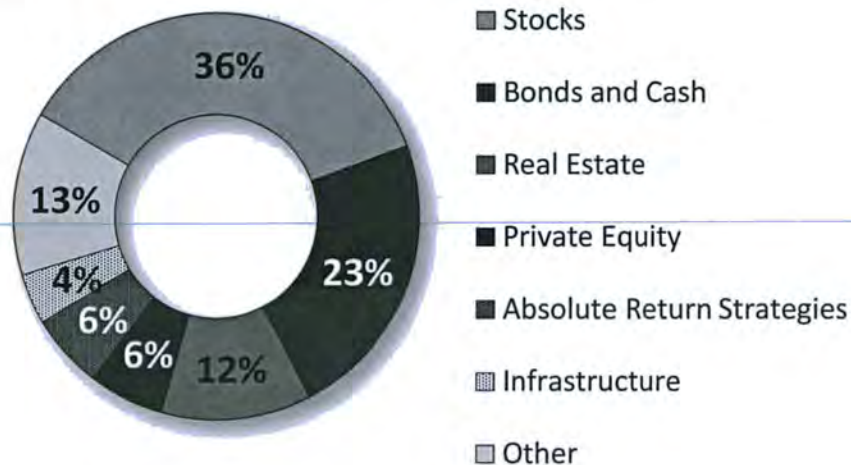
Annual Unrealized Gain/Loss	-547.5	349.8	803.8
Annual Realized Earnings/Loss	2,931.4	3,354.4	3,403.5

#### Reported Earnings

2,383.9	3704.2	4,207.3
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## Alaska Permanent Fund

Target asset allocation



## Alaska Permanent Fund

Asset allocation and summary

Treasury Pool	Target Percent Allocation	Performance Benchmark
Stocks	36%	Multiple Strategies
Bonds and Cash	23%	Multiple Strategies
Real Estate	12%	Multiple Strategies
Private Equity	6%	Multiple Strategies
Absolute Return Strategies	6%	Multiple Strategies
Infrastructure	4%	Multiple Strategies
Other	13%	Multiple Strategies
Special Subaccount Balance: June 30, 2015	\$52,800.5	million
Long-Term Expected Rate of Return	7.80%	Callan's returns



## Chapter 8

# Credits

### An Overview

Alaska's tax code provides for a wide range of credits. Depending on the particular credit, a company may choose to cash in the credit for a refund from the state, apply the credit against its own tax liability, or transfer it to another company. Some credits are built into specific taxes; for example, the per-taxable-barrel credits are part of the tax-calculation mechanism in the current oil tax regime, Senate Bill 21. That credit, along with other tax credits applied against liability, are sometimes considered a type of "tax expenditure," as the forgone revenue is similar to spending in that it reduces the amount of revenue available for the state budget. Because the state never receives this revenue, these credits are not directly visible in revenue and spending numbers. On the other hand, tax credits refunded in cash do show up directly as part of the expenditure side of the ledger.

Many tax credits can only be applied in the tax year in which the credit is earned, but some can be carried forward into future years. In some cases, credits are only identified when they are applied to an annual or quarterly tax return. These tax credits can be difficult to forecast, as the Tax Division often knows very little about the spending patterns of taxpayers. Several credits are exceptions. Some credits must be approved before the activity that earns the credit occurs. One such program is the Salmon and Herring Product Development credit, which requires fisheries businesses to request pre-qualification of their investments in order to receive the credit. Other programs include tax credits applicable to the oil and gas production tax, for which tax expenditures, and the resulting credits, are built into revenue forecasts.

This chapter provides an overview of the various credits, how they are earned, their limitations, and their revenue impact. Other types of tax expenditures, such as deductions, exemptions, and exclusions, are not included in this chapter, but can be found in the

Department of Revenue's Alaska Indirect Expenditures Report: Preliminary Report for FY 2009-FY 2013, on the Tax Division's website.

### Recent Developments

The following are recent developments since the publication of the Fall 2014 *Revenue Sources Book*. Through Senate Bill 39, the Film Tax Credit program stopped accepting new projects on July 1, 2015. However, outstanding projects that were approved before July 1, 2013, by the Alaska Department of Commerce, Community and Economic Development, and projects approved before July 1, 2015, by the Department of Revenue can still be eligible for a tax credit if the correct documentation is submitted before Jan. 1, 2019.

There will be changes in some oil and gas production tax credits in FY 2016. Beginning Jan. 1, 2016, the Carry-Forward Annual Loss credit (AS 43.55.023(b)) will be reduced from 45% to 35% on the North Slope. Commercial oil or gas production must commence before May 1, 2016, for a producer to qualify for the New Area Development credit (AS 43.55.024(a)) or the Small Producer credit (AS 43.55.024(c)), but credits will still be available for qualified companies up to nine years after they first produce. The Cook Inlet Jack-Up Rig credit (AS 43.55.025(a)(5)) and the Frontier Basin credit (AS 43.55.025(a)(6)-(7)) are scheduled to sunset on June 30, 2016. The Alternative Credit for Exploration (AS 43.55.025(a)(1)-(4)) also sunsets on June 30, 2016, for the North Slope and Cook Inlet, although it has been extended to 2022 for other areas of the state.

### Oil and Gas Tax Credit Fund

The Oil and Gas Tax Credit Fund, established under AS 43.55.028, was created to allow the State of Alaska to purchase certain transferable oil and gas tax credit certificates. The Alaska Legislature must appropriate money to this fund annually for this purpose. Credits available for state purchase include the transfer-

# Tax Credits Claimed

FY 2013-FY 2015, in millions of dollars

Millions of Dollars

Fiscal Year	Total Credits Claimed		
	2013	2014	2015 <sup>1</sup>

## Credits Applicable to the Oil and Gas Production Tax

Alternative Credit for Exploration, Cook Inlet Jack-Up Rig Credit, and Frontier Basin Credit	\$11	\$62	\$49
Exploration Incentive Credit	\$0	\$0	\$0
Per Taxable Barrel Credit	\$0 <sup>2</sup>	\$516	\$595
Qualified Capital Expenditure Credit, Well Lease Expenditure Credit, and Carried-Forward Annual Loss Credit	\$854	\$862	\$590
Small Producer / New Area Development Credit	\$53	\$58	\$58

## Credits Applicable to the Corporate Income Tax

Gas Exploration and Development Credit	*	*	\$0
Gas Storage Facility Credit	\$0	\$15	\$0
In-State Gas Refinery Credit	\$0 <sup>3</sup>	\$0 <sup>3</sup>	\$0 <sup>3</sup>
Internal Revenue Code Credits Adopted by Reference	N/T	\$1	\$1
LNG Storage Facility Credit	\$0	\$0	\$0
Oil and Gas Industry Service Expenditures Credit	\$0 <sup>2</sup>	\$0	\$0
Veteran Employment Tax Credit	\$0	\$0	\$0

## Credits Applicable to Multiple Tax Programs

Education Tax Credit	\$7	\$8	\$8
Film Production Credit	\$6	\$22	\$9
Minerals Exploration Incentive Credit	\$6	*	\$0

## Credits Applicable to Fisheries Taxes

Winn Brindle Scholarship Contributions Credit	<\$1	<\$1	<\$1
Salmon and Herring Product Development Credit	\$2	(<\$1) <sup>4</sup>	(<\$1)
Community Development Quota Credit	<\$1	<\$1	<\$1
Other Taxes Credit	N/T	N/T	N/T

## Total All Reportable Tax Credits

<b>\$940</b>	<b>\$1,545</b>	<b>\$1,311</b>
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<sup>1</sup> FY 2015 credit totals are estimated pending annual tax filings.

<sup>2</sup> Credit program began on Jan. 1, 2014.

<sup>3</sup> Credit program began Jan. 1, 2015.

<sup>4</sup> Salmon and Herring Product Development Credits accounted for in FY 2014 were negative as a result of adjustments to prior-year credits.

\* Cannot be reported due to taxpayer confidentiality.

N/T – Not tracked.

able production tax credits under AS 43.55.023, AS 43.55.025, and certain Corporate Income Tax credits under AS 43.20: the Gas Storage Facility Credit, In-State Refinery Tax Credit, and LNG Storage Facility Credit.

Non-transferable credits, generally those offered under AS 43.55.024, are not available for state purchase. Also, state purchase is only available for companies

who produced fewer than 50,000 British Thermal Units (BTU) equivalent barrels per day in the prior calendar year. This fund allows companies undertaking exploration and development activity to monetize the full value of their tax credits even when they do not have an offsetting tax liability.

The Department of Revenue estimates of credits purchased by the state are partly dependent on oil

# History of Production Tax Credits

## FY 2007-FY 2015

Millions of Dollars

Fiscal Year	History								
	2007	2008	2009	2010	2011	2012	2013	2014	2015 <sup>1</sup>
<b>Statewide Credits</b>									
Credits Used against Tax Liability	557	378	333	412	386	363	550	888	664
Credits Purchased by the State <sup>2</sup>	55	54	193	250	450	353	369	593	628
<b>Total Statewide Production Tax Credits</b>	<b>612</b>	<b>432</b>	<b>526</b>	<b>662</b>	<b>863</b>	<b>716</b>	<b>919</b>	<b>1,513</b>	<b>1,292</b>

<sup>1</sup> FY 2015 credit totals are estimated pending annual tax filings.

<sup>2</sup> Credits Purchased by the State of Alaska consists primarily of production tax credits purchased, but also includes corporate income tax credits available for state purchase from the Oil and Gas Tax Credit Fund. These include the Gas Storage Facility Credit, LNG Storage Facility Credit, and Refinery Credits.

forecasts. At lower oil prices, more producers incur a net operating loss, which increases the amount of carried-forward annual loss credits eligible for state purchase. At higher oil prices, the same producers may have a smaller net operating loss, or a positive tax liability before credits. As a result, credits for potential state purchase will increase as oil prices decrease.

In the FY 2016 budget, Governor Bill Walker used a line-item veto to reduce the estimated \$700 million appropriation for refunded oil and gas production credits to a maximum of \$500 million. This action will delay the payout of production tax credits that exceed that amount to FY 2017. Credits expected in excess of the \$500 million cap have been added to the forecasts for FY 2017. By regulation, any FY 2016 credits that are not repurchased due to the funding limit have first priority for available funds in FY 2017.

### New Table with Historical Oil and Gas Production Tax Credits: Table 8-4

Due to many requests for more detailed information, a new table was added to this year's *Revenue Sources Book*, Table 8-4. This table presents historical and forecasted oil and gas production tax credits for FY 2007 to FY 2020 by credit type and by geographic location for both refunded credits and credits used against tax liability. There are a number of assumptions and caveats in this table; please refer to the footnotes for explanations.

## Credits Applicable to the Oil and Gas Production Tax

### Alternative Credit for Exploration AS 43.55.025(a)(1)-(4)

The Alternative Credit for Exploration is a transferable and refundable credit for expenditures for certain oil and gas exploration activities. Outside Cook Inlet, the credit is 40% for seismic costs outside an existing unit, 30% for drilling costs for wells greater than 25 miles from an existing unit, 30% for pre-approved new targets greater than 3 miles from an existing well, and 40% for pre-approved new targets greater than 3 miles from a well and greater than 25 miles from an existing unit. The 3-mile limit does not apply for wells in "Frontier Basins" as described under the Frontier Basin Credit below. Within Cook Inlet, the credit is 40% for seismic costs outside an existing unit, 30% for drilling costs greater than 10 miles from an existing unit, 30% for pre-approved new targets, and 40% for pre-approved drilling costs for wells that are greater than 10 miles from an existing unit. The credit expires on July 1, 2016, for the North Slope and Cook Inlet; for areas other than the North Slope and Cook Inlet, the credit expires Jan. 1, 2022.

### Carried-Forward Annual Loss Credit AS 43.55.023(b)

This credit is a transferable and refundable credit for a carried-forward annual loss, defined as a producer

or explorer's adjusted lease expenditures that are not deductible in calculating production tax values for the calendar year. For areas outside the North Slope, the credit is 25% of the carried-forward annual loss. On the North Slope, since Jan. 1, 2014, the credit for carried-forward annual losses incurred has been 45% of the loss. On Jan. 1, 2016, the credits for losses incurred on the North Slope will decrease to 35% of the loss. With the changes made in Senate Bill and the imminent sunset of the Alternative Credit for Exploration, essentially all refunded credits on the North Slope will be Carried-Forward Annual Loss credits after FY 2017.

### Cook Inlet Jack-Up Rig Credit

AS 43.55.025(a)(5)

This credit is a transferable and refundable credit for exploration expenses for the first three wells drilled by the first jack-up rig brought into Cook Inlet. It is only for expenses incurred in drilling wells that evaluate prospects in the pre-tertiary zone; all three wells must be drilled by unaffiliated parties using the same rig. The credit is 100% of costs for the first well up to \$25 million, 90% of costs for the second well up to \$22.5 million, and 80% of costs for the third well up to \$20 million drilled by the same jack-up rig. If the exploration well is brought into production, the operator repays 50% of the credit over 10 years following production start-up. The authorizing statute is scheduled to sunset on July 1, 2016.

### Education Credit

See "Credits Applicable to Multiple Tax Programs."

### Exploration Incentive Credit

AS 38.05.180(i)

The exploration incentive credit is a non-transferable, non-refundable credit for the cost of drilling or seismic work performed under a limited time period and certain conditions established by the Department of Natural Resources commissioner. Credit may be granted for up to 50% of the cost of drilling or seismic work, not to exceed 50% of the tax liability to which it is being applied. This credit may also be applied against the state royalty. This credit is not currently in use, but is still in state statute.

### Film Production Credit

See "Credits Applicable to Multiple Tax Programs."

### Frontier Basin Credit

AS 43.55.025(a)(6)-(7)

The Frontier Basin Credit is a transferrable, refundable credit for the people that drill the first four exploration wells and the people that conduct the first four seismic exploration projects within six specific areas designated in AS 43.55.025(o), also called the "Frontier

## Chapter 8

# 3

## 10-Year Forecast for Production Tax Credits

Fall 2015 forecast for FY 2016-FY 2025

Fiscal Year	Millions of Dollars									
	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Statewide Credits</b>										
Credits Used against Tax Liability	120	310	430	690	690	760	720	660	630	580
Credits Purchased by the State <sup>1</sup>	500	625	375	250	250	250	250	250	250	250
<b>Total Statewide Production Tax Credits</b>	<b>620</b>	<b>935</b>	<b>805</b>	<b>940</b>	<b>940</b>	<b>1,010</b>	<b>970</b>	<b>910</b>	<b>880</b>	<b>830</b>

<sup>1</sup> Credits Purchased by the State consists primarily of production tax credits purchased, but also includes corporate income tax credits available for state purchase from the Oil and Gas Tax Credit Fund. These include the gas storage facility credit, LNG storage facility credit, and refinery credits.

# Historical Production Tax Credits and Forecast

## Detail, FY 2007-FY 2025

Millions of Dollars

Fiscal Year	Historical								
	2007	2008	2009	2010	2011	2012	2013	2014	2015 <sup>1</sup>
<b>Refunded Credits</b>									
<b>North Slope</b>									
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	55	*	173	223	399	267	*	*	203
Credits under AS 43.55.025 <sup>4</sup>	0	*	14	23	12	53	*	*	21
<b>Total North Slope</b>	<b>55</b>	<b>53</b>	<b>187</b>	<b>246</b>	<b>411</b>	<b>320</b>	<b>261</b>	<b>281</b>	<b>224</b>
<b>Non-North Slope</b>									
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well lease expenditure, AS 43.55.023(l)	0	*	*	*	*	29	*	*	384
Credits under AS 43.55.025 <sup>4</sup>	0	*	*	*	*	4	*	*	21
Credits under AS 43.20 <sup>5</sup>	0	*	*	*	*	0	*	15	0
<b>Total Non-North Slope</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>4</b>	<b>39</b>	<b>33</b>	<b>108</b>	<b>312</b>	<b>404</b>
<b>Total Refunded Credits</b>	<b>55</b>	<b>54</b>	<b>193</b>	<b>250</b>	<b>450</b>	<b>353</b>	<b>369</b>	<b>592</b>	<b>628</b>
<b>Credits Used Against Tax Liability<sup>6,7</sup></b>									
<b>North Slope</b>									
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	292	219	279	339	313	306	486	332	0
Transitional investment credit: AS 43.55.023(i) <sup>8</sup>	171	73	0	0	0	*	*	0	0
Per taxable barrel credit, AS 43.55.024(i)-(j) <sup>9</sup>	0	0	0	0	0	0	0	516	595
Small producer credit, AS 43.55.024(a)(c)	*	*	*	*	*	*	*	*	*
Credits under AS 43.55.025 <sup>4</sup>	*	*	*	*	*	*	*	*	*
<b>Total North Slope</b>	<b>541</b>	<b>368</b>	<b>328</b>	<b>402</b>	<b>345</b>	<b>347</b>	<b>536</b>	<b>907</b>	<b>655</b>
<b>Non-North Slope</b>									
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well lease expenditure, AS 43.55.023(l)	*	*	0	*	11	*	*	*	*
Small producer credit, AS 43.55.024(a)(c)	*	*	6	*	6	*	*	*	*
<b>Total Non-North Slope</b>	<b>16</b>	<b>10</b>	<b>6</b>	<b>10</b>	<b>17</b>	<b>16</b>	<b>14</b>	<b>12</b>	<b>9</b>
<b>Total Credits Used Against Tax Liability</b>	<b>557<sup>10</sup></b>	<b>378</b>	<b>334</b>	<b>412</b>	<b>361</b>	<b>363</b>	<b>550</b>	<b>919</b>	<b>664</b>
Total Credits North Slope	596	421	*	647	756	667	797	1,188	879
Total Credits Non-North Slope	16	11	*	14	56	49	122	323	413
<b>Total Statewide Production Tax Credits</b>	<b>\$612</b>	<b>\$432</b>	<b>\$526</b>	<b>\$662</b>	<b>\$811</b>	<b>\$716</b>	<b>\$918</b>	<b>\$1,511</b>	<b>\$1,292</b>

Source: Fall 2015 *Revenue Sources Book* backup.

\* An asterisk indicates that the data is confidential.

<sup>1</sup> These numbers are preliminary pending Annual Returns.<sup>2</sup> Forecasted refunded credits are rounded to nearest \$5 million. Forecasted credits against liability are rounded to the nearest \$10 million.<sup>3</sup> Forecasted refunded credits in the near-term are based on known projects and company activities. For FY 2020 and beyond, the forecast of credits available for refund is held constant at \$250 million per year.<sup>4</sup> Credits under AS 43.55.025 include the Alternative Credit for Exploration, the Frontier Basin Credit, and for Cook Inlet only the Cook Inlet Jack-up Rig Credit.<sup>5</sup> Credits under AS 43.20 include the Gas Exploration and Development Credit, Gas Storage Facility Credit, the In-State Gas Refinery Credit, and the LNG Storage Facility Credit.<sup>6</sup> The Education Credit, AS 43.55.019, though not reported in its own credit category in the summary, was less than \$1 million in each year

Millions of Dollars

Forecast<sup>2</sup>

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Refunded Credits<sup>3</sup></b>										
<b>North Slope</b>										
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	224	360	199	89	50	50	50	50	50	50
Credits under AS 43.55.025 <sup>4</sup>	0	0	0	0	0	0	0	0	0	0
<b>Total North Slope</b>	<b>224</b>	<b>360</b>	<b>199</b>	<b>89</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
<b>Non-North Slope</b>										
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well lease expenditure, AS 43.55.023(l)	268	210	136	125	166	167	197	198	198	199
Credits under AS 43.55.025 <sup>4</sup>	8	8	7	5	4	3	3	2	2	1
Credits under AS 43.20 <sup>5</sup>	0	45	30	30	30	30	0	0	0	0
<b>Total Non-North Slope</b>	<b>276</b>	<b>263</b>	<b>173</b>	<b>161</b>	<b>200</b>	<b>200</b>	<b>200</b>	<b>200</b>	<b>200</b>	<b>200</b>
<b>Total Refunded Credits</b>	<b>500</b>	<b>625</b>	<b>375</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>
<b>Credits Used Against Tax Liability<sup>6,7</sup></b>										
<b>North Slope</b>										
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	40	52	1	0	0	0	0	0	0	0
Transitional investment credit: AS 43.55.023(i) <sup>8</sup>	0	0	0	0	0	0	0	0	0	0
Per taxable barrel credit, AS 43.55.024(i)-(j) <sup>9</sup>	28	189	367	614	625	703	671	613	584	543
Small producer credit, AS 43.55.024(a)(c)	37	43	37	48	42	36	27	19	5	0
Credits under AS 43.55.025 <sup>4</sup>	0	0	0	0	0	0	0	0	0	0
<b>Total North Slope</b>	<b>105</b>	<b>284</b>	<b>405</b>	<b>662</b>	<b>666</b>	<b>739</b>	<b>698</b>	<b>632</b>	<b>589</b>	<b>543</b>
<b>Non-North Slope</b>										
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well lease expenditure, AS 43.55.023(l)	17	23	23	23	22	22	21	20	30	34
Small producer credit, AS 43.55.024(a)(c)	0	0	0	0	0	0	0	3	6	6
<b>Total Non-North Slope</b>	<b>17</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>22</b>	<b>22</b>	<b>21</b>	<b>23</b>	<b>36</b>	<b>40</b>
<b>Total Credits Used Against Tax Liability</b>	<b>120</b>	<b>310</b>	<b>430</b>	<b>690</b>	<b>690</b>	<b>760</b>	<b>720</b>	<b>660</b>	<b>630</b>	<b>580</b>
Total Credits North Slope	329	644	604	752	716	789	748	682	639	593
Total Credits Non-North Slope	292	286	196	184	222	222	221	223	236	240
<b>Total Statewide Production Tax Credits</b>	<b>\$620</b>	<b>\$935</b>	<b>\$805</b>	<b>\$940</b>	<b>\$940</b>	<b>\$1,010</b>	<b>\$970</b>	<b>\$910</b>	<b>\$880</b>	<b>\$830</b>

reported and is calculated in the total.

<sup>7</sup> For historical credits against tax liability, geographic location was determined by attributing all .023(l) credits to Non-North Slope, all .025 credits to North Slope, and the other credits were placed according to where the taxpayer primarily operated. Since multiple taxpayers had operations multiple areas, these numbers should be treated as rough estimates.

<sup>8</sup> The Transitional Investment Expenditure credit sunset on Dec. 31, 2013.

<sup>9</sup> For FY 2014, the Per Taxable Barrel Credit is for only the last six months of the fiscal year. Credits applied against liability in forecast are reduced because of the 4% minimum gross tax.

<sup>10</sup> Three months of 2006 credits data are included in the FY 2007 credits used against tax liability number.

Basins.” The credit is for the lesser of 80% of qualified exploration drilling expenses or \$25 million; or for seismic projects, credit is for the lesser of 75% of qualified seismic exploration expenditures or \$7.5 million. It includes expenditures incurred for work performed after June 1, 2012, and before July 1, 2016. The authorizing statute is scheduled to sunset on July 1, 2016.

### **Per-Taxable-Barrel Credit**

AS 43.55.024(i)-(j)

Beginning Jan. 1, 2014, there is a per-taxable-barrel credit for oil production on the North Slope. This credit cannot be transferred, or carried forward. Essentially, this credit is part of the Senate Bill 21 tax regime.

In areas that qualify for a gross value reduction (GVR), the credit is \$5 per taxable barrel. Those areas are defined in AS 43.55.160(f) and (g).

For areas that do not qualify for a GVR, the credit ranges from \$0 to \$8 per taxable barrel based on price, as measured by gross value at point of production (GVPP) per barrel. It operates on a sliding scale from \$0 per barrel when the price is over \$150 to \$8 when the price is under \$80.

The vast majority of oil produced on the North Slope is not GVR-eligible. Therefore, the structure of the per-taxable-barrel credit is such that as the price of oil increases, the dollar value of the credit decreases, and vice versa.

One important limit is that the credit for non-GVR-eligible oil may not reduce the producer’s tax liability to less than the minimum tax established under AS 43.55.011(f), which is currently 4% of the GVPP. The credit for GVR-eligible oil may not reduce the producer’s liability below zero. Because of these limits, a large portion of earned per-taxable-barrel credits are unusable at the current low prices. Therefore, the short-term forecast shows a relatively small amount of this credit being used, compared with nearly \$1.3 billion that theoretically could be “earned” based on \$8 per barrel multiplied by the anticipated taxable production on the North Slope.

### **Qualified Capital Expenditure and Well Lease Expenditure Credit**

AS 43.55.023(a) and (l)

These credits are transferable and refundable tax credits for qualified oil and gas capital expenditures in the state outside the North Slope. They can be

taken in lieu of exploration incentive credits under AS 43.55.025 and gas exploration credits under AS 43.20.043. Qualified expenditures can qualify for a credit of 20% of eligible capital expenditures, or 40% of qualified well lease expenditures. As of Jan. 1, 2014, the qualified capital expenditure credit is no longer available for North Slope capital expenditures.

### **Small Producer/New Area Development Credit**

AS 43.55.024(a) and (c)

The Small Producer Credit is a non-transferable credit for oil and gas produced by small producers, defined as having average taxable oil and gas production of less than 100,000 BTU-equivalent barrels per day. The credit is available until May 1, 2016, or nine years after the first commercial production of oil and gas on the properties for which the credit applies, whichever is later. The small producer credit is capped at \$12 million annually for producers with less than 50,000 BTU-equivalent barrels per day. For larger producers, the credit phases out, and is zero for producers with 100,000 or more BTU-equivalent barrels per day. The credit may only be used against tax liability, and only if the producer has a positive tax liability before the application of credits.

The New Area Development Credit is a credit of up to \$6 million per company annually, for oil or gas produced from leases outside Cook Inlet and south of 68 degrees North latitude, providing the producer has a positive tax liability on that production before the application of credits. The credit is available until May 1, 2016, or nine years after the first commercial production of oil and gas on the properties for which the credit applies, whichever is later. Because there has not been commercial production outside the North Slope and Cook Inlet, this credit has not been used.

### **Transitional Investment Expenditure Credit**

AS 43.55.023(i)

The transitional investment expenditure credit was a non-transferable credit for qualified oil and gas capital expenditures incurred between March 31, 2001, and April 1, 2006. The credit was 20% of qualified oil and gas capital expenditures incurred between March 31, 2001, and April 1, 2006, not to exceed 10% of the capital expenditures incurred between March 31,

2006, and Jan. 1, 2008. The credit was only available until Dec. 31, 2013.

## Credits Applicable to Corporate Income Tax

### Education Credit

See "Credits Applicable to Multiple Tax Programs."

### Film Production Credit

See "Credits Applicable to Multiple Tax Programs."

### Gas Exploration and Development Credit AS 43.20.043

The Gas Exploration and Development Credit is a non-transferable credit for qualified expenditures for the exploration and development of non-North Slope natural gas reserves. The credit is 25% of qualified expenditures for investment after Jan. 1, 2010; investments in existing units qualify. The credit is capped at 75% of corporate tax liability as calculated before applying other credits.

### Gas Storage Facility Credit AS 43.20.046

The Gas Storage Facility Credit was a refundable credit, paid out of the Oil and Gas Tax Credit Fund under AS 43.55.028, for the costs incurred to establish an underground natural gas storage facility in Kenai. This credit was limited to one company and was taken in FY 2014.

The credit was \$1.50 per thousand cubic feet of "working gas" storage capacity as determined by the Alaska Oil and Gas Conservation Commission. It did not apply to gas storage related to a gas sales pipeline on the North Slope. To qualify, the facility had to operate as a public utility regulated by the Regulatory Commission of Alaska with open access for third parties. It was effective for facilities placed into service between Jan. 1, 2011, and Dec. 31, 2015. The maximum credit was the lesser of \$15 million or 25% of costs incurred to establish the facility.

### In-State Refinery Tax Credit AS 43.20.053

The In-State Refinery Tax Credit began on Jan. 1, 2015, and is a credit for qualified infrastructure expenditures for in-state oil refineries incurred after Dec. 31, 2014,

and before Jan. 1, 2020. The credit may not exceed 40% of total qualifying expenditures or \$10 million per tax year per refinery, whichever amount is less. The credit can be applied against corporate income tax liability and carried forward for up to five years, or purchased by the state via the Oil and Gas Tax Credit Fund. The authorizing statute will sunset on Dec. 31, 2019.

### Internal Revenue Code Credits Adopted By Reference AS 43.20.021

Under Alaska's blanket adoption of the federal Internal Revenue Code, taxpayers can claim all federal incentive credits. Federal credits that refund other federal taxes are not allowed. Multistate taxpayers apportion their total federal incentive credits. In most cases, the credit is limited to 18% of the amount of the credit determined for federal income tax purposes that is attributable to Alaska.

### LNG Storage Facility Credit AS 43.20.047

The LNG Storage Facility Credit is a non-transferable, refundable credit for the costs incurred to establish a storage facility for liquefied natural gas. The credit is lesser of \$15 million or 50% of costs incurred to establish the facility and is paid from the .028 fund. It applies to facilities with a minimum storage capacity of 25,000 gallons of LNG, and that are public utilities regulated by the Regulatory Commission of Alaska. It is for facilities placed into service after Jan. 1, 2011. This credit is limited to one facility.

### Oil and Gas Industry Service Expenditures Credit AS 43.20.049

The Oil and Gas Industry Service Expenditures Credit is a credit of 10% of qualified oil and gas industry service expenditures that are for in-state manufacture or in-state modification of oil and gas tangible personal property with a service life of three years or more. The credit may be applied to corporate income tax liabilities in amounts up to \$10 million per taxpayer per year. The credit is effective for expenditures incurred after Jan. 1, 2014. The credit is not transferable, but any amount of the credit that exceeds the taxpayer's liability may be carried forward up to five years.

### Minerals Exploration Incentive Credit

See "Credits Applicable to Multiple Tax Programs."

## **Veteran Employment Tax Credit** AS 43.20.048

The Veteran Employment Credit is a non-transferable, non-refundable credit for corporate income taxpayers that employ qualified veterans in the state. A “qualified veteran” is a veteran who was unemployed for more than four weeks preceding the employment date and who was discharged or released from military service not more than 10 years before employment date (for a disabled veteran) or not more than two years before employment date (for a veteran who is not disabled). The credit is \$3,000 for a disabled veteran or \$2,000 for a veteran who is not disabled for employment for a minimum of 1,560 hours during 12 consecutive months following the veteran’s employment date. For seasonal employment, the credit is \$1,000 for a veteran employed for a minimum of 500 hours during three consecutive months following the employment date.

### **Credits Applicable to Fisheries Taxes**

#### **Community Development Quota Credit** AS 43.77.040

The Community Development Quota Credit is a non-transferable credit for contributions to an Alaska nonprofit corporation that is dedicated to fisheries industry-related expenditures. The credit is available only for fishery resources harvested under a Community Development Quota. The credit is 100% of their contribution amount up to a maximum of 45.45% of the tax liability on fishery resources harvested under a Community Development Quota. The authorizing statute is scheduled to sunset Jan. 1, 2021.

#### **Education Credit**

See “Credits Applicable to Multiple Tax Programs.”

#### **Film Production Credit**

See “Credits Applicable to Multiple Tax Programs.”

#### **Other Taxes Credit** AS 43.77.030

The Other Taxes Credit is a non-transferable, non-refundable credit for taxes paid to another jurisdiction on fishery resources landed in Alaska. The credit is

100% of taxes paid with a maximum of 100% of the Alaska tax liability on the fishery resources.

#### **Salmon and Herring Product Development Credit** AS 43.75.035

The Salmon and Herring Product Development Credit is a non-transferable, non-refundable credit for eligible capital expenditures to expand value-added processing of Alaska salmon and herring, including ice-making machines. The credit is 50% of qualified investments up to 50% of tax liability incurred for processing salmon and herring during the tax year. The credit may be carried forward for three years, but the authorizing statute is scheduled to sunset on Dec. 31, 2020. Herring products were added to the credit in 2014.

#### **Winn Brindle Scholarship Contributions Credit** AS 43.75.032, 43.77.035

The Winn Brindle Scholarship Contributions Credit is applicable to both the Fisheries Business Tax and the Fishery Resource Landing Tax. It is a non-transferable credit for contributions to the A.W. “Winn” Brindle memorial education loan account. The credit is 100% of the contribution amount, up to a maximum of 5% of tax liability. This credit will sunset on Jan. 1, 2017.

### **Credits Applicable to Multiple Tax Programs**

#### **Education Credit** AS 21.96.070, 43.20.014, 43.55.019, 43.56.018, 43.65.018, 43.75.018, 43.77.045

The Education Credit is a non-transferable, non-refundable credit applicable to the Corporate Income Tax, Fisheries Business Tax, Fishery Resource Landing Tax, Insurance Premiums Tax, Title Insurance Premiums Tax, Mining License Tax, Oil and Gas Production Tax, and the Oil and Gas Property Tax. Taxpayers can claim a credit for contributions to vocational educational programs, accredited non-profit, public or private Alaska universities or colleges, Alaska public or private non-profit elementary or secondary schools, annual intercollegiate sports tournaments, Alaska Native educational programs, facilities that qualify under the Coastal American Partnership, qualified apprenticeship programs, nonprofit regional training centers, the Alaska higher education investment fund,

a postsecondary institution in the state providing dual-credit courses, a residential school in the state, and the Department of Education and Early Development. The credit is available for up to 50% of annual contributions up to \$100,000, 100% of the next \$200,000, and 50% of annual contributions beyond \$300,000. The credit for any one taxpayer cannot exceed \$5 million annually across all eligible tax types.

### **Film Production Credit**

AS 43.98.030, under AS 21.09.210, 21.66.110, 43.20, 43.55, 43.56, 43.65, 43.75 and 43.77

The Film Production Credit is a transferable, non-refundable credit for expenditures on eligible film production activities in Alaska. Effective July 1, 2013: 1) a producer must spend at least \$75,000 in qualified expenditures over a consecutive 24-month period to qualify; 2) the credit is 30% of eligible film production expenditures, plus an additional 20% credit for wages paid to Alaska residents, plus an additional 6% credit for filming in a rural area, plus an additional 2% credit for filming between October 1 and March 30; 3) the credits must be used within six years; 4) in addition to corporate income tax, the tax credit now also applies to the insurance premium tax, title insurance tax, oil and gas production tax, oil and gas property tax, mining license tax, fisheries business license tax, and fisheries resource landing tax. The program is capped at a \$300 million maximum budget for all projects.

The film credit program stopped accepting new projects on July 1, 2015, but pre-qualified film projects are still eligible to receive a credit upon verification of required documents until Jan. 1, 2019.

### **Minerals Exploration Incentive Credit**

AS 27.30.030, 43.20.044

The Minerals Exploration Incentive Credit is applicable to the Corporate Income Tax, Mining License Tax, and Mineral Production Royalty. It is a non-transferable, non-refundable credit for eligible costs of mineral or coal exploration activities and requires the approval of the Department of Natural Resources commissioner. The credit is 100% of allowable exploration costs with a maximum of \$20 million per mining operation and must be used within 15 years. For the mining license tax (MLT), the credit is limited to the lesser of 50% of the MLT liability at the mining operation at which the exploration occurred or 50% of total MLT liability. For the corporate income tax, it is limited to the lesser of 50% of the MLT liability at the mining operation at which the exploration occurred or 50% of total CIT liability. For mineral royalty, the credit is limited to 50% of royalty liability from the mining operation at which the exploration activity occurred.



## Chapter 9

# State Endowment Funds

### An Overview

This section compares important attributes of five endowment funds. The University of Alaska endowment is included in this comparison because it is one of Alaska's public endowment funds that uses the annual distribution calculation method typical of the vast majority of endowments in the United States and Canada.

The fiduciary for each of these endowment funds has the responsibility for establishing an asset-allocation policy for the fund. Table 9-1 compares the current asset-allocation policies for these endowments.

Under the standards adopted by the Governmental Accounting Standards Board (GASB), public funds calculate and report their income by recognizing changes in the value of securities as income, or losses, as they occur at the end of each trading day. They do this regardless of whether the securities are actually sold and the income, or losses, are taken or realized. All five of these endowments report annual income on this basis. However, the Alaska Permanent Fund, the Mental Health Trust fund, and the Public School Trust Fund use other measures of annual income for determining their distributions. The Alaska Permanent Fund and the Mental Health Trust fund are both administered by the Alaska Permanent Fund Corporation (APFC).

In determining the amount of income available for distribution each year for the two funds managed by the Alaska Permanent Fund Corporation, gains or

losses on individual investments are not recognized until the investment is sold. For calculating distributable income for the Public School Trust Fund, only interest earned and dividends received are treated as income. Gains and losses in the value of individual investments are never recognized as income. By law, those gains and losses remain with the principal of the fund.

### Alaska Permanent Fund

The annual distribution for the Permanent Fund Dividend follows the formula in AS 37.13.140-.145, which specifies that 10.5% of the past five years' total realized income shall be paid out as dividends, but also sets the limitation that the annual distribution may never exceed 50% of the balance in the fund's Earnings Reserve Account (ERA). This 50% limitation has not been triggered in the history of the fund.

An annual appropriation is needed to "inflation-proof" the principal of the Permanent Fund (but not the accumulated earnings) pursuant to AS 37.13.145. The legislative appropriation requires a transfer from the ERA to the fund's principal in an amount equal to the calculated U.S. Consumer Price Index's effect on the value of the principal. The Alaska Permanent Fund Corporation's trustees have at various times proposed a constitutional amendment that would inflation-proof the entire fund, the principal and accumulated earnings, by limiting the annual distribution of earnings to 5% of a five-year moving average of the market value of the fund.

# State Endowment Funds

## Target asset allocations, in percentages

<b>Strategy-Based</b>	Short-Term Fixed Income Pool	Intermediate -Term Fixed Income Pool	Broad Market Fixed Income Pool	Domestic Equity Pool	International Equity Pool
Public School Trust Fund	0%	0%	45%	36%	19%
Power Cost Equalization Endowment Fund	0%	0%	29%	47%	24%
	Cash	Capital Appreciation	Diversifying Strategies	Inflation Sensitive	Deflation Sensitive
University of Alaska Endowment	4%	63%	16%	2%	15%
<b>Risk-Based</b>	Cash and Interest Rates	Company Exposure	Real Assets	Special Opportunities	
Alaska Permanent Fund	6%	55%	19%	20%	
Mental Health Trust	6%	55%	19%	20%	
	Cash	Broad Market Fixed Income	Domestic Equity	International Equity	
Other Mental Health Trust Investments	10%	29%	40%	21%	

### Mental Health Trust

Earnings from the Mental Health Trust Fund, which is managed by the Alaska Permanent Fund Corporation, are for use in ensuring an integrated comprehensive mental health program for the state. Current statute requires net income earned on the principal of the fund to be calculated in the same manner as the Alaska Permanent Fund. Only realized income is ultimately made available for distribution to the Mental Health Trust. Trustees have established a percent-of-market-value distribution model whereby distributions from cash investments managed by APFC and the Department of Revenue are limited to 4.25% of the four-year moving-average net asset value. This reduces the volatility of program funding while budget reserves ensure funding continues even when markets are down. Funding is also made available for mental health programs from spendable income generated by the Mental Health Trust's directly owned commercial real estate portfolio as well as other revenue generated from land that is managed by the Trust Land Office of the Alaska Department of Natural Resources. The balance of funding consists of interest earned on cash holdings, and the unexpended

balance of expired appropriations lapsing back to the fund.

The Mental Health Trust has a policy to periodically make transfers and/or assign funds to offset the effects of inflation in order to preserve the purchasing power of the fund.

### Public School Trust Fund

The distributable income of the Public School Trust Fund, interest and dividends, moves from the principal account assets to the income account. The Department of Revenue's Treasury Division transfers money each month to a separate income account within the Trust, where it is held pending annual appropriation by the Alaska Legislature. Once appropriated, the income assets are available for expenditures that support the state public school system.

The asset-allocation policy is such that, when combined with the requirement that the fund's capital gains and losses remain part of the principal, the retained capital gains are adequate to inflation-proof the fund.

## **Power Cost Equalization Endowment Fund**

AS 42.45.080(c) states that on July 1 of each year, the Commissioner of Revenue shall determine the monthly average market value of the Power Cost Equalization (PCE) Endowment Fund for the previous three fiscal years. Seven percent of the amount determined by the Commissioner may be appropriated for the fiscal year beginning the following July 1 for: 1) Funding the power cost equalization and rural electric capitalization fund (AS 42.45.100); 2) reimbursement to the Department of Revenue for the costs of establishing and managing the fund; and 3) reimbursement of other costs of administration of the fund.

## **University of Alaska Endowment**

The University of Alaska's land grant endowment is invested along with the University of Alaska Foundation's endowments in a consolidated endowment fund. The consolidated endowment fund is a pooled investment fund which is managed by the University of Alaska Foundation Investment Committee in accor-

dance with an agreement and an investment policy approved by the University Board of Regents and the Foundation Board of Trustees.

The overall objectives of the fund are to provide a stream of relatively stable earnings in support of annual budgetary needs and to maintain the real (inflation-adjusted) purchasing power of the fund to the extent practicable. In order to meet these objectives, the goal of the fund is to achieve an average annual real return of 5% of its market value, net of investment management expenses and all fees charged to the fund over rolling five-year periods.

The University of Alaska's spending allowance rate is 4.5% of the five-year moving average of the market value of its portion of the fund measured on Dec. 31 of each year. The University of Alaska Foundation's spending allowance rate is 4.0% of the five-year moving average of the market value of its portion of the fund measured on Dec. 31 of each year.

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## Chapter 10

# Public Entities and the University of Alaska

### Overview

The State of Alaska has established the following public corporations and entities to carry out certain public policies:

- Alaska Aerospace Corporation (AAC)
- Alaska Energy Authority (AEA)
- Alaska Gasline Development Corporation (AGDC)
- Alaska Housing Finance Corporation (AHFC)
- Alaska Industrial Development and Export Authority (AIDEA)
- Alaska Mental Health Trust Authority (AMHTA)
- Alaska Municipal Bond Bank Authority (AMBBA)
- Alaska Railroad Corporation (ARC)
- Alaska Seafood Marketing Institute (ASMI)
- Alaska Student Loan Corporation (ASLC)
- University of Alaska (UA)

These 11 entities are components of state government presented in the state's Comprehensive Annual Financial Report. Information in this section is provided by these entities. The Alaska Housing Finance Corporation, Alaska Industrial Development and Export Authority, Alaska Student Loan Corporation, and Alaska Municipal Bond Bank Authority pay, or may elect to pay, some portion of their income as an annual dividend to the state. This chapter summarizes the missions, financing, and dividends of these corporations and other public entities.

### Missions, Financing and Dividends

#### Alaska Aerospace Corporation

The Alaska Aerospace Corporation operates and maintains a commercial spaceport in Kodiak, and provides commercial rocket vehicle launch support

services. It promotes space-related business, research, education, and economic growth in the state.

The state has supported AAC through funding for capital and operating expenses. In FY 2015, the state contributed \$6.1 million to maintain operations. AAC does not pay a dividend or return capital to the state.

#### Alaska Energy Authority

The Alaska Energy Authority provides loans to utilities, communities, and individuals to pay for the purchase or upgrade of equipment, and for bulk fuel purchases. Additionally, the agency administers the Power Cost Equalization program, subsidizing rural electric costs with earnings from the Power Cost Equalization Endowment. AEA receives federal and state money to provide technical advice and assistance in energy planning, emergency response management, and energy infrastructure construction and conservation in rural Alaska. AEA owns, operates, and maintains (under contractual agreements) state-owned power projects, such as the Bradley Lake Hydroelectric Project and the Alaska Intertie.

The AEA was established in 1976 to finance and operate power projects. This corporation has also administered rural energy programs at various times, including the present. As a result of legislatively mandated reorganizations, capital has moved into and out of the corporation.

AEA does not pay a dividend or return capital to the state on a regular basis.

#### Alaska Gasline Development Corporation

The Alaska Gasline Development Corporation was established in 2010 by the Alaska Legislature and is

# Public Entities – FY 2015 Financial Facts

In millions of dollars

Millions of Dollars

	Total Assets	Assets Less Liabilities Book Value	FY 2014 Operating Budget	FY 2015 Operating Budget	Total Positions <sup>1</sup>
Alaska Aerospace Corporation	93.3	69.0	10.6	10.1	46
Alaska Energy Authority	1,558.2 <sup>5</sup>	1,426.8	51.7	48.9 <sup>3</sup>	See AIDEA <sup>2</sup>
Alaska Gasline Development Corporation	284.3	272.2	11.9	11.8	38
Alaska Housing Finance Corporation	3,744.9 <sup>2</sup>	1,485.5 <sup>6</sup>	93.4	93.7	353
Alaska Industrial Development and Export Authority	1,494.8 <sup>5</sup>	1,290.1	15.9	16.5	106
Alaska Mental Health Trust Authority	627.0	606.0	3.4	3.5	16
Alaska Municipal Bond Bank Authority	1,013.5	56.2	0.8	0.8	2
Alaska Railroad Corporation <sup>3</sup>	1,069.4	304.7	133.3	128.8	624
Alaska Seafood Marketing Institute	23.2	14.3	29.6	26.7	20
Alaska Student Loan Corporation <sup>4</sup>	413.9	220.8	13.3	13.3	83
University of Alaska	2,122.6	1,250.7	914.2	924.9	4,934

<sup>1</sup> Permanent full time, permanent part time and temporary are included in total positions.

<sup>2</sup> AIDEA, AEA, and AHFC's asset totals include deferred outflow of resources.

<sup>3</sup> Includes AEA multi-year operating appropriation for Statewide Project Development, Alternative Energy and Efficiency.

<sup>4</sup> AIDEA provides staff for the activities of the AEA. A significant portion of AIDEA's staff is engaged in AEA programs.

<sup>5</sup> AGDC's numbers are unaudited and subject to revision.

<sup>6</sup> Assets and deferred outflows of resources less liabilities and deferred inflows of resources.

<sup>7</sup> The Alaska Railroad reports financial data on a calendar year basis. Assets and book value shown in this table are from audited Dec. 31, 2014, financial statements. The revised operating budgets figure shown here is for calendar year 2014 and CY 2015.

<sup>8</sup> ASLC contracts with the Alaska Commission on Postsecondary Education to service its loan portfolio and provide staff support. Budget and positions reported are those of ACPE's funded by ASLC.

now an independent, public corporation of the State of Alaska. Its goals are developing North Slope natural gas for the maximum benefit of Alaskans, advancing a pipeline to deliver gas in-state at the lowest possible cost, developing other transportation mechanisms for delivering gas or non-oil hydrocarbons in-state, and assisting the departments of Revenue and Natural Resources to maximize the value of the state's gas.

AGDC is currently pursuing two options for delivery of North Slope natural gas to Alaskans: the Alaska Stand Alone Pipeline (ASAP) project and the Alaska liquefied natural gas (LNG) project. The corporation is responsible for two funds from which it finances its operations and activities for both the ASAP project and the Alaska LNG project. The In-State Natural Gas Pipeline Fund (AS 31.25.100) was established in 2013 to fund the planning, financing, development, acquisition, maintenance, construction, and operation of the ASAP in-state natural gas pipeline project. The State of Alaska has appropriated approximately \$395 million to AGDC and the fund.

However, in 2015, the Legislature appropriated \$157 million from the In-State Natural Gas Pipeline Fund (AS 31.25.100) to the education budget (Sec 9, Ch. 1, SSSLA 15).

The Alaska Liquefied Natural Gas Project Fund (AS 31.25.110) was established in 2014 to fund state expenditures associated with the Alaska LNG project and the state's equity participation in that venture. AGDC is authorized to acquire a 25% ownership interest in the project on the state's behalf, including development of infrastructure and services related to transportation, liquefaction, marine terminals, marketing, and commercial support. The fund has been capitalized with appropriations totaling \$69.8 million.

Signed into law Nov. 6, 2015, Senate Bill 3001 appropriated about \$144.1 million from the general fund to the Alaska LNG Project Fund (AS 31.25.110) to acquire the interest currently held by TransCanada in the Alaska LNG project and to fund the state's share of preliminary front-end engineering and design work. The

Legislature also appropriated \$2.9 million received as reimbursement from the Alaska liquefied natural gas project fund (AS 31.25.110) and \$1.3 million received as reimbursement from the in-state natural gas pipeline fund (AS 31.25.100) for costs of field work paid during the fiscal year ending June 30, 2016.

### **Alaska Housing Finance Corporation**

The Alaska Housing Finance Corporation was created in 1986 to ensure that Alaskans, especially those of low to moderate income and those in remote or underdeveloped areas of the state, have adequate housing at a reasonable cost. The corporation administers federally and state-funded multi-residential, senior and low-income housing, residential energy, and home-weatherization programs. Using proceeds from the sale of bonds backed by its corporate assets, AHFC purchases home mortgages from Alaska banks.

Income from payments on these mortgages repays bondholders and supplements the corporation's income, thereby enabling the corporation to pay an annual dividend and/or return of capital to the state in some years. In recent years, the Legislature has authorized AHFC to finance the construction of schools, University of Alaska housing, and other capital projects identified by the Legislature. AHFC also managed the Alaska Gasline Development Corporation as a subsidiary until 2013, when AGDC became an independent entity.

The Legislature appropriated \$739.9 million in cash and \$292.5 million in mortgages held by the general fund to the corporation between 1976 and 1984. Payments on mortgages, including additional mortgages purchased with cash, have helped build the corporation's asset base and allow it to return some capital to the state each year. In 1993, AHFC received an additional \$27.7 million in cash and \$9.3 million in equity when the Legislature merged the Alaska State Housing Authority with AHFC.

In 2003, the Legislature enacted legislation (House Bill 256) to modify the law that created the AHFC, putting into place a transfer plan between the AHFC and the state. The governor signed the legislation into law the same year, and the Legislature modified it in 2006 with Senate Bill 236. The law calls for annual transfers that do not exceed the lesser of (1) 75% of adjusted change in net assets for the fiscal year two years prior to the current fiscal year or (2) \$103 million less debt service on certain state Capital Project Bonds, less any legislative appropriation of AHFC's unrestricted, unencumbered funds other than appropriations of its operating budget. Since 1991, AHFC has paid nearly \$2 billion in dividends to the state, including \$7.4 million in FY 2015.

### **Alaska Industrial Development and Export Authority**

The Alaska Industrial Development and Export Authority provides various means of financing and investment to advance economic growth and job opportunities in Alaska. AIDEA's financing tools include loan participations, direct loans, credit enhancements, issuing of revenue bonds, and equity investments in projects. AIDEA makes financing available for industrial, commercial, and other business enterprises in Alaska. The corporation generates income from interest on its loans, investments, leases, and operations of its properties.

Between 1981 and 1991, the State of Alaska transferred various loan portfolios worth \$297.1 million and \$69.2 million in cash to the corporation. Since then, it has sustained itself without further state assistance while also paying annual dividends to the state. As defined by statute, AIDEA must make available to the state each year not less than 25% and not more than 50% of its audited "net income" (as defined in statute) for the "base year." The "base year" is the fiscal year ending two years prior to the end of the fiscal year in which the dividend payment is made to the State of Alaska. In no case may the dividend exceed the base year unrestricted audited "net income." The actual transfer of the dividend requires a legislative appropriation that may be a line item vetoed by the governor. Since 1997, AIDEA has paid more than \$365 million in dividends to the state treasury, including \$10.7 million in FY 2015.

### **Alaska Mental Health Trust Authority**

The Alaska Mental Health Trust Authority is a public corporation of the state within the Department of Revenue and carries out the state's obligations under the Mental Health Enabling Act of 1956, namely to ensure an integrated comprehensive mental health program. The Mental Health Enabling Act established the Alaska Mental Health Trust as a perpetual trust and capitalized it with 1 million acres of land that was to be managed to generate income for mental health services in Alaska. During the course of class action litigation, the Alaska Supreme Court concluded the state breached its fiduciary duty while managing Trust land. A 1994 settlement created the Alaska Mental Health Trust Authority and established a seven-member board of trustees to oversee it. The settlement recapitalized the Mental Health Trust with \$200 million and 1 million acres of land consisting of original Trust land as well as replacement land.

Earnings on this asset base are used to fund a variety of programs and are accounted for separately in

# Public Entities – FY 2015 Revenue and Dividends

In millions of dollars

Millions of Dollars

	Revenue	Expenditures	Net Income	Dividend	State Contribution
Alaska Aerospace Corporation	10.6	14.1 <sup>1</sup>	(3.4)	0.0	9.5 <sup>2</sup>
Alaska Energy Authority	91.1	136.0	20.6	0.0	65.5
Alaska Gasline Development Corporation <sup>3</sup>	2.8	101.0	(98.3)	0.0	1.4
Alaska Housing Finance Corporation	290.1	285.4 <sup>4</sup>	4.7	7.5	77.6
Alaska Industrial Development and Export Authority	53.2	28.1	28.4	10.7	14.0
Alaska Mental Health Trust Authority	45.0	25.0	20.0	0.0	0.0
Alaska Municipal Bond Bank Authority	45.3	45.7	(0.4)	0.0	0.0
Alaska Railroad Corporation	186.5	172.4	14.1	0.0	0.0
Alaska Seafood Marketing Institute	21.6 <sup>5</sup>	25.1 <sup>6</sup>	(3.5)	0.0	7.4
Alaska Student Loan Corporation	18.3	17.0	1.3	0.0	0.0
University of Alaska	793.2	814.6	(21.5)	0.0	383.4 <sup>7</sup>

<sup>1</sup>For AAC, insurance payments and capitalized expenditures for rebuilding launch complex are not included.

<sup>2</sup>For AAC, on-behalf payments made by the State of Alaska for pension included in "State Contribution."

<sup>3</sup>AGDC's numbers are unaudited and subject to change.

<sup>4</sup>For AHFC, "Expenditures" include operating expenses, nonoperating expenses, special items, and transfers, as applicable.

<sup>5</sup>Revenue from the Seafood Marketing Assessment Tax of \$9.5 mil are included in the Revenue column, not the State contribution column.

<sup>6</sup>ASMI expenses increased by \$3.5 million related to GASB 68 for Net Pension Obligation.

<sup>7</sup>Does not include on-behalf payments made by the State of Alaska for pension.

the annual Mental Health budget, which is typically passed in conjunction with the operating budget.

Under the terms of the settlement and state statute, the Alaska Permanent Fund Corporation manages the cash principal. The Department of Natural Resources manages the land assets and a portfolio of directly owned real estate investments. The Trust Authority operates similar to a private foundation to administer, protect and enhance the Mental Health Trust. The Trust Authority provides leadership in advocacy, planning, implementing and funding Alaska's comprehensive integrated mental health program and coordinates with state agencies on programs and services to help improve the lives of Trust beneficiaries.

## Alaska Municipal Bond Bank Authority

The Alaska Municipal Bond Bank Authority lends monies to authorized borrowers within the state to finance capital projects, primarily through the issuance of AMBBA bonds. Bond proceeds are used to purchase authorized borrower's debt instruments.

Limited State of Alaska credit support combined with a cross-collateralized loan portfolio and pooled reserve fund structure result in a strong credit rating, and enable the AMBBA to sell bonds with lower interest rates than authorized borrowers could obtain on their own.

Between 1976 and 2015, total State of Alaska appropriated equity to the AMBBA was \$33.4 million, and total transfers back to the State of Alaska were \$27.8 million. For the last eight years, the state's operating budget has appropriated any AMBBA net earnings to the AMBBA. Due to the current low-interest rate environment there has been no statutory net income amount available for transfer since FY 2011.

## Alaska Railroad Corporation

The Alaska Railroad Corporation operates freight and passenger rail services between Seward and Fairbanks, including a spur line to Whittier and the Anchorage Airport. In addition, the corporation generates revenues from its real estate assets.

The state bought the railroad from the federal government in 1985. The purchase price of \$22.7 million was recorded as the state's capitalization. The corporation does not pay a cash dividend to the general fund.

### **Alaska Seafood Marketing Institute**

The Alaska Seafood Marketing Institute is a marketing organization with the mission of increasing the economic value of Alaska seafood. It conducts advertising campaigns and public relations for the seafood industry. It also works directly with foodservice distributors, retailers and restaurants to build the Alaska Seafood brand. ASMI is a public-private partnership and receives funding from the State of Alaska, the federal government and private industry.

The state levies the Seafood Marketing Assessment, a 0.5% assessment on fisheries, to support ASMI's operations. In addition, in FY 2015, ASMI received \$4 million in federal funding and \$7.4 million from the general fund.

### **Alaska Student Loan Corporation**

The Alaska Student Loan Corporation issues debt and recycles education loan payments to finance education loans. Education loan payments satisfy debt obligations and provide funding for operations. In FY 1988, the state transferred \$260 million of existing student loans to this corporation. Additional appropriations of cash between FY 1988 and FY 1992 totaled \$46.7 million.

This corporation, at the discretion of its board of directors, may make available to the state a return

of contributed capital or dividend for any base year in which the net income of the corporation is \$2 million or more. A base year is defined as the year two years before the payment year. If the board authorizes a payment, it must be between 10% and 35% of net income for the base year (AS 14.42.295). The corporation may also issue bonds in an aggregate amount not to exceed \$280 million, for the purpose of financing projects of the state (AS 14.42.220). To date, the corporation has issued \$163 million in bonds, the proceeds of which have been appropriated to fund capital projects of the state.

### **University of Alaska**

The University of Alaska is a constitutionally created corporation of the State of Alaska which is authorized to hold title to real and personal property and to issue debt in its own name. The University is the only public institution of higher learning in Alaska. It is a state-wide system that consists of three universities located in Anchorage, Fairbanks, and Juneau, with each having extended satellite colleges and sites throughout Alaska. The system's administrative offices are located on the Fairbanks campus. The University is governed by an 11-member Board of Regents, which is appointed by the governor.

The University of Alaska System is primarily supported by the State of Alaska general fund appropriations, student tuition and fees, and grant and contract revenue from a diverse group of federal agencies, the State of Alaska and private sponsors, including the University of Alaska Foundation.

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# Glossary and Appendices

## Glossary



### **Constitutional Budget Reserve Fund (CBRF)**

Created by voters in 1990, the CBRF receives proceeds from settlements of oil, gas, and mining tax and royalty disputes. The Legislature may, with a three-quarters majority vote in each chamber, withdraw money from the fund.

### **Designated General Fund Revenue**

General fund revenue that is designated for a specific purpose, typically using a general fund subaccount. The Legislature can at any time remove the restrictions on this category of revenue as they are solely imposed by either Alaska statute or customary practice. At times, this category of revenue may be included in legislative and public debate over the budget.

### **Federal Revenue**

When the federal government gives money to states, it typically restricts how that money can be used. For example, highway and airport construction funds, Medicaid, and education funding cannot be used for other purposes. In addition to restricting how the money is spent, the federal government often requires states to put up matching funds to qualify for the federal funding.

### **General Fund Revenue**

General fund revenue has different meanings in different contexts. In the state's official financial reports, general fund revenue is used to designate the sum of general fund unrestricted revenue, general fund sub-account revenue, program receipts and other funds spent through the general fund. In budget reports, general fund revenue is split into revenue with no specific purpose, and revenue with a specific purpose. These categories are called unrestricted general fund revenue and designated general fund revenue, respectively.

### **General Fund Unrestricted Revenue**

Revenue not restricted by the Alaska Constitution, state or federal law, trust or debt restrictions, or customary practice. This revenue is deposited into the state's unrestricted general fund and most legislative and public debate over the budget each year centers on this category of revenue. In deriving the department's Unrestricted Revenue figure from total general fund revenue, the department has excluded general fund

subaccount revenue, as well as customarily restricted revenue such as shared taxes and pass-through revenue for qualified fisheries associations. The department has also added certain revenue such as transfers to the state treasury from the Unclaimed Property Trust and dividends from component units.

### **Other Restricted State Revenue**

Non-federal revenue that is not deposited to the general fund or a subaccount of the general fund. This revenue is restricted by the Alaska Constitution, state or federal law, trust or debt restrictions, or by customary practice.

### **Permanent Fund GASB (or Market) Income**

Under standards adopted by the Governmental Accounting Standards Board, the Permanent Fund's income – and that of any other government fund – is the difference between the purchase price of the investments and their market value at a given point in time, plus any dividends, interest or rent earned on those investments. Under GASB standards, the Permanent Fund does not have to sell the investment to count the gain or loss as it changes value. It is called "marking to market," that is, measuring the value of the fund's investments by the current market price. This can produce a much different picture than Permanent Fund statutory income, which does not reflect fluctuating investment values until the assets are sold.

### **Permanent Fund Statutory Income**

The annual Permanent Fund dividend is based on statutory income. This is the sum of realized gains and losses of all Permanent Fund investment transactions during the year, plus interest, dividends and rents earned by the fund. The Legislature may appropriate the earnings for any purpose it chooses. The historical practice has been to use realized income primarily for dividends and inflation-proofing, and then either leave the excess in the realized earnings account, or transfer it to the principal of the Permanent Fund.

### **Restricted Program Receipts**

This revenue is earmarked in state statute or by contract for specific purposes and is usually appropriated back to the program that generated the revenue. Examples include University of Alaska tuition payments, marine highway receipts, payments to various revol-

ing loan funds, and public corporation receipts. Some of this revenue is actually dedicated as a consequence of provisions of the Alaska Constitution. The remainder, while statutorily earmarked, may be appropriated to purposes other than those reflected in statute if the Legislature so chooses. These earmarked funds are categorized as designated general funds.

### Restricted Revenue

Restricted revenue represents revenue that is restricted by the Alaska Constitution, state or federal law, trust or debt restrictions, or by customary practice. The Legislature can at any time remove restrictions that are solely imposed by either Alaska statute or customary practice. Program receipts, revenue allocated to sub-accounts of the general fund, and general fund revenue customarily shared with other entities are all considered restricted revenue for the purposes of this report. In this report, the department presents three categories of restricted revenue: designated general fund revenue, other restricted state revenue, and federal revenue.

### Revenue Available for Current-Year Appropriation

All revenue that is technically available for the Legislature to appropriate, regardless of customary practice. Includes General Fund Unrestricted Revenue, Designated General Fund Revenue, deposits to and earnings from the CBRF, a portion of deposits to the Permanent Fund, and realized earnings from the Permanent Fund.

### Acronyms

AAC – Alaska Aerospace Corporation  
 AEA – Alaska Energy Authority  
 AGDC – Alaska Gasline Development Corporation  
 AGI – Adjusted gross income  
 AHFC – Alaska Housing Finance Corporation  
 AIDEA – Alaska Industrial Development and Export Authority  
 APFC – Alaska Permanent Fund Corporation  
 AMBBA – Alaska Municipal Bond Bank Authority  
 AMHTA – Alaska Mental Health Trust Authority  
 ANS – Alaska North Slope  
 AOGCC – Alaska Oil and Gas Conservation Commission  
 APFC – Alaska Permanent Fund Corporation  
 ARC – Alaska Railroad Corporation  
 ASAP – Alaska Stand Alone Pipeline  
 ASLC – Alaska Student Loan Corporation  
 ASMI – Alaska Seafood Marketing Institute  
 BTU – British thermal unit  
 CAPEX – Capital expenditures  
 CBRF – Constitutional Budget Reserve Fund  
 CDQ – Community development quota

CIT – Corporate Income Tax  
 CPVT – Commercial Passenger Vessel Taxes  
 CY – Calendar year  
 DCCED – Department of Commerce, Community and Economic Development  
 DNR – Department of Natural Resources  
 DOR – Department of Revenue  
 ELF – Economic Limit Factor  
 EPA – Environmental Protection Agency  
 ERA – Earnings reserve account  
 ERG – Economic Research Group  
 FBT – Fisheries business tax  
 FERC – Federal Energy Regulatory Commission  
 FY – Fiscal year  
 GAAP – Generally Accepted Accounting Principles  
 GASB – Governmental Accounting Standards Board  
 GFUR – General fund unrestricted revenue  
 GVPP – Gross value at point of production  
 GVR – Gross value reduction  
 LLC – Limited Liability Corporation  
 LNG – Liquefied natural gas  
 MCF – Thousand cubic feet  
 MLT – Mining license tax  
 MFT – Motor fuel tax  
 NPR-A – National Petroleum Reserve in Alaska  
 OECD – Organization for Economic Cooperation and Development  
 OPEC – Organization of Petroleum Exporting Countries  
 OPEX – Operating expenditures  
 PERS – Public Employees' Retirement System  
 PCE – Power Cost Equalization  
 PSTF – Public School Trust Fund  
 QR – Quick Response  
 RCA – Regulatory Commission of Alaska  
 RIK – Royalty in kind  
 RIV – Royalty in value  
 RSB – *Revenue Sources Book*  
 SB 21 – Senate Bill 21, passed in 2013  
 SBRF – Statutory Budget Reserve Fund  
 TAPS – Trans-Alaska Pipeline System  
 TRS – Teachers' Retirement System  
 UA – University of Alaska  
 WTI – West Texas Intermediate

# Unrestricted General Fund Revenue Matrices

## Revenue sensitivity to oil price

Millions of Dollars

FY 2016		FY 2017		FY 2018	
At forecasted ANS production of 500,200 barrels per day		At forecasted ANS production of 504,900 barrels per day		At forecasted ANS production of 497,700 barrels per day	
Alaska North Slope Dollars per Barrel <sup>1</sup>	Unrestricted General Fund Revenue	Alaska North Slope Dollars per Barrel	Unrestricted General Fund Revenue	Alaska North Slope Dollars per Barrel	Unrestricted General Fund Revenue
\$30	\$1,080	\$30	\$1,040	\$30	\$1,060
\$40	\$1,260	\$40	\$1,200	\$40	\$1,220
\$49.58	\$1,593	\$50	\$1,590	\$50	\$1,580
\$50	\$1,620	\$56.24	\$1,796	\$60	\$1,950
\$60	\$1,990	\$60	\$1,990	\$62.73	\$2,021
\$70	\$2,380	\$70	\$2,240	\$70	\$2,200
\$80	\$3,180	\$80	\$2,600	\$80	\$2,550
\$90	\$4,030	\$90	\$3,300	\$90	\$3,130
\$100	\$4,980	\$100	\$4,150	\$100	\$3,960
\$110	\$5,820	\$110	\$5,010	\$110	\$4,790
\$120	\$6,770	\$120	\$5,880	\$120	\$5,630
\$130	\$7,620	\$130	\$6,740	\$130	\$6,480

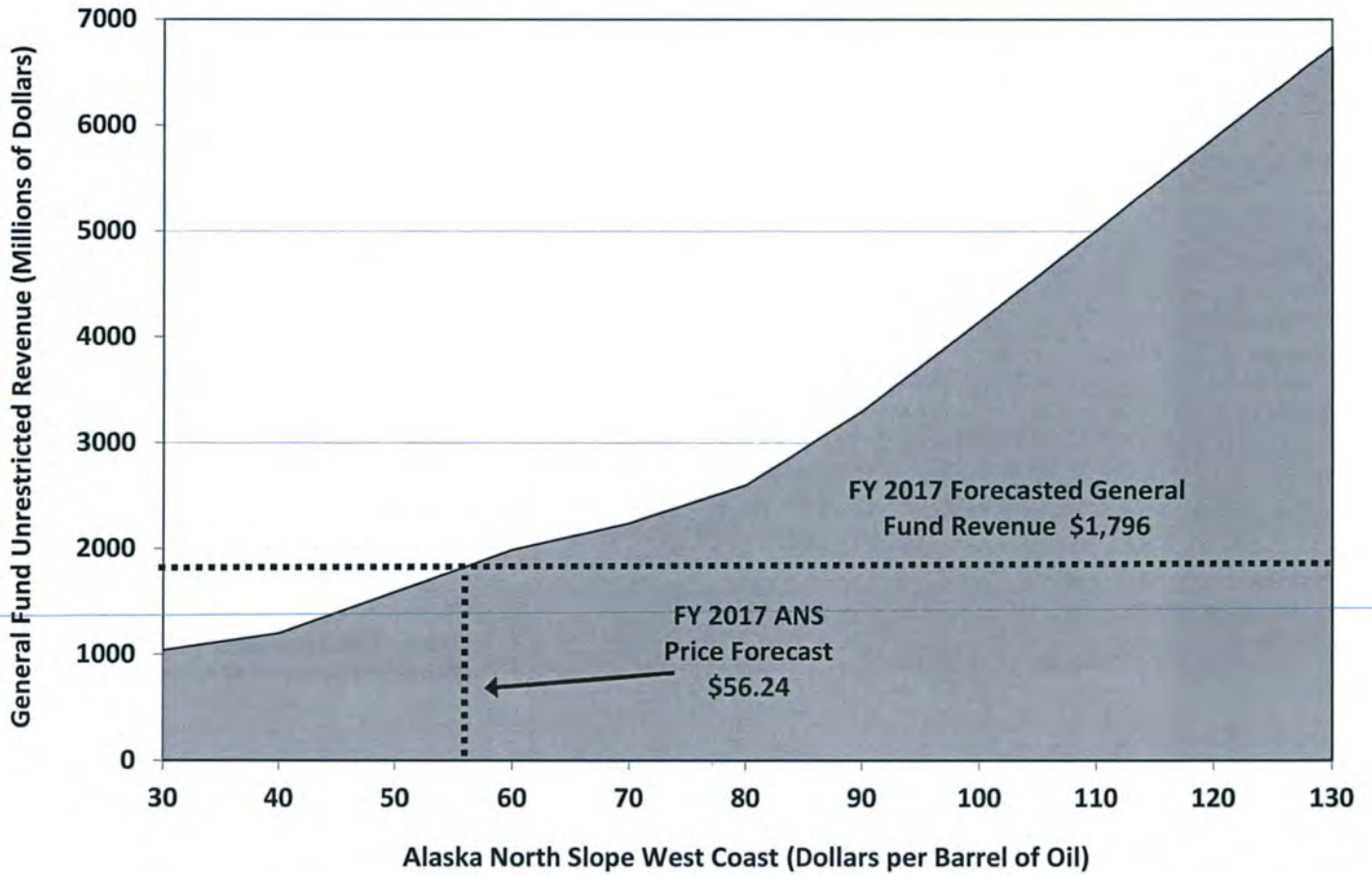
<sup>1</sup> Alaska North Slope dollars per barrel values are fiscal-year averages that incorporate actual prices for the first four months of FY 2016. Because oil prices averaged \$50.37 for the first four months, it can take a different price for the remainder of the year to bring the fiscal-year average to levels in the table. For example, a fiscal-year price of \$70 per barrel would require eight months of oil prices around \$80 per barrel.

**Note:**

This table presents estimated General Fund Unrestricted Revenue at a range of ANS prices, holding all other variables constant. Analysis assumes that the given price is in place for all three years shown. Only production tax, royalties, and corporate income tax are adjusted for purposes of this analysis. Users should be cautioned that changes in any number of variables may cause revenue to vary significantly from amounts shown. These variables include but are not limited to production, lease expenditures, and netback costs. In addition, revenues may vary from the amount shown due to changes in company decision-making, company-specific tax calculation issues, month-to-month variations in price or production, and changes in non-oil revenue.

## GFUR Relative to Price per Barrel

Price sensitivity for FY 2017



# History of Unrestricted General Fund Revenue<sup>1</sup>

By type and category

Millions of Dollars

History

Fiscal Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Unrestricted General Fund Tax Revenue</b>										
<b>Petroleum Property Tax</b>	<b>54.5</b>	<b>65.6</b>	<b>81.5</b>	<b>111.2</b>	<b>118.8</b>	<b>110.6</b>	<b>111.2</b>	<b>99.3</b>	<b>128.1</b>	<b>125.2</b>
<b>Excise Tax</b>										
Alcoholic Beverages	17.6	17.1	20.0	19.5	19.5	19.4	19.4	19.8	18.3	17.7
Tobacco Products	35.4	43.8	44.9	46.6	45.1	46.5	45.6	44.8	42.8	40.5
Insurance Premium	44.3	46.5	47.1	45.5	50.4	49.6	54.8	52.4	54.6	59.1
Electric and Telephone Cooperative	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.2
Motor Fuel Tax	42.0	39.2	41.8	10.1	28.8	39.5	40.9	41.9	41.9	41.8
Vehicle Rental tax	7.7	8.0	8.5	8.0	7.3	8.3	8.5	8.4	8.3	9.7
Tire Fee	1.6	1.5	1.5	1.5	1.4	1.5	1.4	1.4	1.3	1.5
<b>Total Excise Tax</b>	<b>148.8</b>	<b>156.3</b>	<b>164.0</b>	<b>131.3</b>	<b>152.6</b>	<b>164.9</b>	<b>170.8</b>	<b>168.9</b>	<b>167.5</b>	<b>170.5</b>
<b>Income Tax</b>										
General Corporate	138.0	176.9	182.7	120.9	81.9	157.7	98.5	112.5	99.9	136.2
Petroleum Corporate	661.1	594.4	605.8	492.2	446.1	542.1	568.8	434.6	307.6	94.8
<b>Total Income Tax</b>	<b>799.1</b>	<b>771.3</b>	<b>788.5</b>	<b>613.1</b>	<b>528.0</b>	<b>699.8</b>	<b>667.3</b>	<b>547.1</b>	<b>407.5</b>	<b>231.0</b>
<b>Oil and Gas Production</b>										
Oil and Gas Production Tax	1,191.7	2,198.3	6,810.9	3,100.9	2,860.7	4,543.2	6,136.7	4,042.5	2,605.9	381.6
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Hazardous Release	7.8	10.1	11.7	11.1	10.3	9.7	9.4	7.8	8.8	8.1
<b>Total Oil and Gas Production</b>	<b>1,199.5</b>	<b>2,208.4</b>	<b>6,822.6</b>	<b>3,112.0</b>	<b>2,871.0</b>	<b>4,552.9</b>	<b>6,146.1</b>	<b>4,050.3</b>	<b>2,614.7</b>	<b>389.7</b>
<b>Fish Tax</b>										
Fisheries Business Tax	15.4	17.1	14.7	19.3	14.0	20.1	26.4	19.2	25.1	21.3
Fish Landing	4.7	5.3	7.9	4.7	8.3	2.7	6.3	5.5	7.1	5.1
<b>Total Fish Tax</b>	<b>20.1</b>	<b>22.4</b>	<b>22.6</b>	<b>24.0</b>	<b>22.3</b>	<b>22.8</b>	<b>32.7</b>	<b>24.7</b>	<b>32.2</b>	<b>26.4</b>
<b>Other Tax</b>										
Estate	0.6	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Mining	18.6	79.1	54.4	15.5	29.7	49.0	40.7	46.7	23.3	38.6
Charitable Gaming	2.4	2.5	2.7	2.8	2.6	2.5	2.6	2.5	2.5	2.5
Large Passenger Vessel Gambling	0.0	0.0	0.0	0.0	6.3	5.8	5.2	6.0	6.7	6.6
<b>Total Other Tax</b>	<b>21.6</b>	<b>81.7</b>	<b>57.1</b>	<b>18.5</b>	<b>38.6</b>	<b>57.3</b>	<b>48.5</b>	<b>55.2</b>	<b>32.5</b>	<b>47.7</b>
<b>Total Unrestricted General Fund Tax Revenue</b>	<b>2,243.6</b>	<b>3,305.7</b>	<b>7,936.3</b>	<b>4,010.1</b>	<b>3,731.3</b>	<b>5,608.3</b>	<b>7,176.6</b>	<b>4,945.5</b>	<b>3,382.5</b>	<b>990.5</b>

(Table continued, next page)

# History of Unrestricted General Fund Revenue<sup>1</sup>

By type and category *(Continued)*

Fiscal Year	Millions of Dollars									
	History									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Unrestricted General Fund Non-Tax Revenue</b>										
Licenses and Permits	41.0	42.0	38.9	35.5	39.5	42.8	42.3	41.9	42.7	34.4
<b>Intergovernmental Receipts</b>										
Federal Shared Revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Charges for Services	21.8	28.5	29.3	19.3	17.1	18.5	29.2	25.2	24.2	20.1
Fines and Forfeitures	8.5	7.8	8.9	10.5	10.4	7.0	10.9	15.8	11.3	12.4
<b>Rents and Royalties</b>										
Oil and Gas Royalties <sup>2</sup>	1,772.2	1,583.8	2,420.6	1,451.2	1,469.0	1,821.3	2,022.8	1,748.4	1,685.0	1,052.1
Oil and Gas Bonuses, Rents, Interest <sup>2,3</sup>	11.9	29.2	25.5	14.4	8.0	22.0	8.9	19.4	27.4	26.1
Other <sup>4</sup>	8.8	11.8	14.6	15.6	13.2	17.6	20.4	24.7	34.5	36.3
<b>Total Rents and Royalties</b>	<b>1,792.9</b>	<b>1,624.8</b>	<b>2,460.7</b>	<b>1,481.2</b>	<b>1,490.2</b>	<b>1,860.9</b>	<b>2,052.1</b>	<b>1,792.5</b>	<b>1,746.9</b>	<b>1,114.5</b>
Investment Earnings	53.3	140.1	227.9	247.6	184.0	96.3	107.8	28.1	130.2	47.9
Miscellaneous Revenue <sup>5</sup>	39.3	9.7	26.2	27.0	40.8	39.1	66.3	79.5	52.3	37.5
<b>Total Unrestricted General Fund Non-Tax Revenue</b>	<b>1,956.8</b>	<b>1,852.9</b>	<b>2,791.9</b>	<b>1,821.1</b>	<b>1,782.0</b>	<b>2,064.6</b>	<b>2,308.6</b>	<b>1,983.0</b>	<b>2,007.6</b>	<b>1,266.8</b>
<b>Total Unrestricted General Fund Revenue</b>	<b>4,200.4</b>	<b>5,158.6</b>	<b>10,728.2</b>	<b>5,831.2</b>	<b>5,513.3</b>	<b>7,672.9</b>	<b>9,485.2</b>	<b>6,928.5</b>	<b>5,390.1</b>	<b>2,257.3</b>

<sup>1</sup> Unrestricted General Fund Revenue includes that revenue that is not restricted by statute or custom, as reported elsewhere in this publication. A summary of historical Unrestricted General Fund Revenue can be found on the Tax Division's website at [www.tax.alaska.gov/sourcesbook/General-FundUnrestrictedRevenueHistory.pdf](http://www.tax.alaska.gov/sourcesbook/General-FundUnrestrictedRevenueHistory.pdf).

<sup>2</sup> Net of Permanent Fund, Public School Trust Fund, and Constitutional Budget Reserve Fund deposits.

<sup>3</sup> This category is primarily composed of petroleum revenue.

<sup>4</sup> Includes non-petroleum rents and royalties.

<sup>5</sup> Starting in FY 2010, dividends and payments from state-owned corporations are included in unrestricted miscellaneous revenue.

# Petroleum Revenue

## By restriction and type

Millions of Dollars

History<sup>1</sup>

Fiscal Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Unrestricted Petroleum Revenue</b>										
Petroleum Property Tax	54.5	65.6	81.5	111.2	118.8	110.6	111.2	99.3	128.1	125.2
Petroleum Corporate Income Tax	661.1	594.4	605.8	492.2	446.1	542.1	568.8	434.6	307.6	94.8
Production Tax	1,191.7	2,198.3	6,810.9	3,100.9	2,860.7	4,543.2	6,136.7	4,042.5	2,605.9	381.6
Oil and Gas Hazardous Release	7.8	10.1	11.7	11.1	10.3	9.7	9.4	7.8	8.8	8.1
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Royalties <sup>2</sup>	1,772.2	1,583.8	2,420.6	1,451.2	1,469.0	1,821.3	2,022.8	1,748.4	1,685.0	1,052.1
Bonuses, Rents and Interest <sup>2,3</sup>	11.9	29.2	25.5	14.4	8.0	22.0	8.9	19.4	27.4	26.1
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Unrestricted Petroleum Revenue</b>	<b>3,699.2</b>	<b>4,481.4</b>	<b>9,956.0</b>	<b>5,181.0</b>	<b>4,912.9</b>	<b>7,048.9</b>	<b>8,857.8</b>	<b>6,352.0</b>	<b>4,762.8</b>	<b>1,687.9</b>
Cumulative Total Petroleum Revenue <sup>4</sup>	61,809	66,291	76,247	81,428	86,340	93,389	102,247	108,599	113,362	115,050
<b>Restricted Petroleum Revenue</b>										
NPR-A Rents, Royalties, Bonuses	4.5	12.8	5.2	14.8	21.3	3.0	4.8	3.6	6.8	3.2
Royalties to Permanent Fund	599.5	535.0	834.0	659.8	696.1	857.3	904.9	842.1	773.7	510.4
Royalties to Public School Trust Fund	12.0	10.6	16.5	11.0	11.1	13.6	14.7	13.8	12.5	7.9
Constitutional Budget Reserve Fund Deposits	43.7	101.9	476.4	202.6	552.7	167.3	102.1	176.6	141.4	149.0
<b>Total Restricted Petroleum Revenue</b>	<b>659.7</b>	<b>660.3</b>	<b>1,332.1</b>	<b>888.2</b>	<b>1,281.2</b>	<b>1,041.2</b>	<b>1,026.5</b>	<b>1,036.1</b>	<b>934.4</b>	<b>670.5</b>

(Table continued, next page)

# Petroleum Revenue

By restriction and type *(Continued)*

Millions of Dollars

Forecast

Fiscal Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Unrestricted Petroleum Revenue</b>										
Petroleum Property Tax	133.9	131.7	131.2	130.1	129.1	127.5	125.7	123.7	121.3	118.5
Petroleum Corporate Income Tax	105.0	160.0	195.0	205.0	200.0	205.0	200.0	195.0	195.0	195.0
Production Tax	163.9	179.5	268.6	288.3	288.0	311.4	300.6	280.8	287.1	295.7
Oil and Gas Hazardous Release	8.3	8.3	8.2	8.0	7.6	7.0	6.5	5.9	5.5	5.0
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Royalties <sup>2</sup>	637.6	745.0	827.1	888.2	856.4	871.3	830.5	781.1	740.1	698.5
Bonuses, Rents and Interest <sup>2,3</sup>	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Unrestricted Petroleum Revenue</b>	<b>1,061.5</b>	<b>1,237.3</b>	<b>1,443.0</b>	<b>1,532.5</b>	<b>1,493.9</b>	<b>1,535.1</b>	<b>1,476.1</b>	<b>1,399.4</b>	<b>1,361.7</b>	<b>1,325.6</b>
<b>Cumulative Total Petroleum Revenue<sup>4</sup></b>	<b>116,111</b>	<b>117,349</b>	<b>118,792</b>	<b>120,324</b>	<b>121,818</b>	<b>123,353</b>	<b>124,829</b>	<b>126,229</b>	<b>127,590</b>	<b>128,916</b>
<b>Restricted Petroleum Revenue</b>										
NPR-A Rents, Royalties, Bonuses	4.3	4.3	4.3	7.6	10.4	8.4	6.9	6.0	5.5	5.1
Royalties to Permanent Fund	283.0	326.3	362.2	394.6	381.1	378.7	354.4	329.1	309.2	289.8
Royalties to Public School Trust Fund	4.7	5.5	6.1	6.5	6.3	6.4	6.0	5.7	5.4	5.1
Constitutional Budget Reserve Fund Deposits	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
<b>Total Restricted Petroleum Revenue</b>	<b>312.0</b>	<b>356.1</b>	<b>392.5</b>	<b>428.8</b>	<b>417.7</b>	<b>413.4</b>	<b>387.4</b>	<b>360.8</b>	<b>340.0</b>	<b>319.9</b>

<sup>1</sup> Historical petroleum revenue can be found on the Tax Division's website at [www.tax.alaska.gov/sourcesbook/PetroleumRevenueHistory.pdf](http://www.tax.alaska.gov/sourcesbook/PetroleumRevenueHistory.pdf).

<sup>2</sup> Net of Permanent Fund, Public School Trust Fund, and CBRF deposits.

<sup>3</sup> This category is primarily petroleum revenue.

<sup>4</sup> Based on revenue beginning in FY 1959.

# Unrestricted General Fund Revenue

## Petroleum versus non-petroleum revenue

Fiscal Year	Millions of Dollars									
	History									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Unrestricted General Fund Revenue</b>										
Total Unrestricted Petroleum Revenue	3,699.2	4,481.4	9,956.0	5,181.0	4,912.9	7,048.9	8,857.8	6,352.0	4,762.8	1,687.9
Unrestricted General Fund Non-Petroleum Revenue	501.2	677.2	772.2	650.2	600.4	624.0	627.4	576.5	627.3	569.4
<b>Total Unrestricted General Fund Revenue</b>	<b>4,200.4</b>	<b>5,158.6</b>	<b>10,728.2</b>	<b>5,831.2</b>	<b>5,513.3</b>	<b>7,672.9</b>	<b>9,485.2</b>	<b>6,928.5</b>	<b>5,390.1</b>	<b>2,257.3</b>
Percent of Total Unrestricted General Fund Revenue from Petroleum	88%	87%	93%	89%	89%	92%	93%	92%	88%	75%

(Table continued, next page)

# Unrestricted General Fund Revenue

Petroleum versus non-petroleum revenue *(Continued)*

Fiscal Year	Millions of Dollars									
	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Unrestricted General Fund Revenue</b>										
Total Unrestricted Petroleum Revenue	1,061.5	1,237.3	1,443.0	1,532.5	1,493.9	1,535.1	1,476.1	1,399.4	1,361.7	1,325.6
Unrestricted General Fund Non-Petroleum Revenue	531.4	559.1	578.0	597.6	617.4	638.2	655.7	677.2	698.9	720.5
<b>Total Unrestricted General Fund Revenue</b>	<b>1,593.0</b>	<b>1,796.4</b>	<b>2,021.0</b>	<b>2,130.0</b>	<b>2,111.3</b>	<b>2,173.3</b>	<b>2,131.8</b>	<b>2,076.5</b>	<b>2,060.6</b>	<b>2,046.1</b>
Percent of Total Unrestricted General Fund Revenue from Petroleum	67%	69%	71%	72%	71%	71%	69%	67%	66%	65%

# Nominal Netback Costs, Actual and Forecast

By netback segment

Fiscal Year	Dollars per Barrel									
	History									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Alaska North Slope West Coast</b>	<b>62.12</b>	<b>61.60</b>	<b>96.51</b>	<b>68.34</b>	<b>74.90</b>	<b>94.49</b>	<b>112.65</b>	<b>107.57</b>	<b>107.57</b>	<b>72.58</b>
<b>Netback Costs<sup>1</sup></b>										
Marine Costs	1.65	1.62	1.93	2.05	2.21	2.44	3.24	3.64	3.70	3.25
Taps Tariff	3.55	4.37	5.08	4.59	3.81	4.02	5.06	5.93	6.52	6.11
Feeder Tariff	0.30	0.45	0.31	0.31	0.31	0.29	0.31	0.35	0.38	0.42
Quality Bank	-0.24	-0.86	-1.26	-0.52	-0.41	-0.54	-0.68	-0.67	-0.59	-0.37
Other <sup>2</sup>	0.17	-0.18	-0.01	-0.05	0.09	0.46	0.44	0.51	0.41	0.33
<b>Total of Netback Costs</b>	<b>5.43</b>	<b>5.40</b>	<b>6.05</b>	<b>6.38</b>	<b>6.01</b>	<b>6.67</b>	<b>8.37</b>	<b>9.76</b>	<b>10.42</b>	<b>9.74</b>
<b>ANS Wellhead Weighted Average All Destinations</b>	<b>56.69</b>	<b>56.20</b>	<b>90.46</b>	<b>61.96</b>	<b>68.89</b>	<b>87.82</b>	<b>104.28</b>	<b>97.81</b>	<b>97.15</b>	<b>62.83</b>

(Table continued, next page)

# Nominal Netback Costs, Actual and Forecast

By netback segment *(Continued)*

Dollars per Barrel

Fiscal Year	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Alaska North Slope West Coast</b>	<b>49.58</b>	<b>56.24</b>	<b>62.73</b>	<b>68.95</b>	<b>71.05</b>	<b>77.68</b>	<b>80.00</b>	<b>81.80</b>	<b>84.53</b>	<b>87.35</b>
<b>Netback Costs<sup>3</sup></b>										
Marine Costs	3.28	3.37	3.47	3.55	3.60	3.70	3.75	3.80	3.86	3.92
Taps Tariff	6.41	6.73	6.92	7.23	7.73	8.45	9.29	10.22	11.29	12.47
Feeder Tariff	0.42	0.54	0.55	0.56	0.59	0.65	0.71	0.77	0.84	0.93
Quality Bank	0.21	0.23	0.26	0.28	0.29	0.32	0.33	0.34	0.35	0.37
Other <sup>2</sup>	0.25	0.28	0.31	0.33	0.34	0.38	0.39	0.40	0.41	0.43
<b>Total of Netback Costs</b>	<b>10.56</b>	<b>11.16</b>	<b>11.51</b>	<b>11.96</b>	<b>12.56</b>	<b>13.49</b>	<b>14.46</b>	<b>15.53</b>	<b>16.76</b>	<b>18.11</b>
<b>ANS Wellhead Weighted Average All Destinations</b>	<b>39.02</b>	<b>45.08</b>	<b>51.22</b>	<b>56.99</b>	<b>58.49</b>	<b>64.19</b>	<b>65.54</b>	<b>66.27</b>	<b>67.77</b>	<b>69.24</b>

<sup>1</sup> Costs reported here are meant to be average costs for barrels that incurred the transportation expense. For example, marine costs should represent the average for barrels shipped on a tanker, not the average for all barrels sold. The Department of Revenue's data sources are variable and the department has not been able to confirm that this is the case for all years.

<sup>2</sup> Primarily tanker and pipeline losses.

<sup>3</sup> Forecasted transportation costs for barrels that incurred the transportation expense. For example, marine costs represent the average for barrels shipped on a tanker, not the average for all barrels sold.

Source: Data maintained by Alaska Department of Revenue, Tax Division, Economic Research Section. The department attempts to use a consistent methodology when reporting data. However, data sources and formats have changed over time making consistent comparison of data potentially difficult.

# Price Difference

## Spring 2015 forecast and Fall 2015 forecast

Dollars per Barrel

Fiscal Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Spring 2015 Forecast</b>										
ANS West Coast	67.49	66.03	86.66	89.06	97.51	109.54	112.61	114.92	119.61	124.34
ANS Wellhead Weighted Average All Destinations	58.08	56.75	77.04	79.14	87.01	98.40	100.72	102.18	105.94	109.63
<b>Fall 2015 Forecast</b>										
ANS West Coast	72.58	49.58	56.24	62.73	68.95	71.05	77.68	80.00	81.80	84.53
ANS Wellhead Weighted Average All Destinations	62.83	39.02	45.08	51.22	56.99	58.49	64.19	65.54	66.27	67.77
<b>Dollar Amount Change from Prior Forecast</b>										
ANS West Coast	5.09	-16.45	-30.42	-26.33	-28.56	-38.49	-34.93	-34.92	-37.81	-39.81
ANS Wellhead Weighted Average All Destinations	4.75	-17.73	-31.96	-27.92	-30.02	-39.91	-36.53	-36.64	-39.67	-41.86
<b>Percent Change from Prior Forecast</b>										
ANS West Coast	7.5%	-24.9%	-35.1%	-29.6%	-29.3%	-35.1%	-31.0%	-30.4%	-31.6%	-32.0%
ANS Wellhead Weighted Average All Destinations	8.2%	-31.2%	-41.5%	-35.3%	-34.5%	-40.6%	-36.3%	-35.9%	-37.4%	-38.2%

# Production Difference

## Spring 2015 forecast and Fall 2015 forecast

Fiscal Year	Thousand Barrels per Day									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Spring 2015 Forecast</b>										
Alaska North Slope	508.0	519.5	535.5	506.6	469.9	440.1	406.6	374.1	348.8	320.3
Non-North Slope	16.9	14.7	13.0	11.7	10.6	9.7	8.9	8.2	7.6	7.0
<b>Total</b>	<b>524.9</b>	<b>534.2</b>	<b>548.5</b>	<b>518.3</b>	<b>480.5</b>	<b>449.8</b>	<b>415.5</b>	<b>382.4</b>	<b>356.4</b>	<b>327.4</b>
<b>Fall 2015 Forecast</b>										
Alaska North Slope	501.5	500.2	504.9	497.7	487.6	460.5	423.9	391.1	359.8	329.2
Non-North Slope	18.0	17.8	16.1	14.7	13.5	12.5	11.7	10.9	10.2	9.6
<b>Total</b>	<b>519.5</b>	<b>518.0</b>	<b>521.0</b>	<b>512.4</b>	<b>501.1</b>	<b>473.0</b>	<b>435.5</b>	<b>402.0</b>	<b>370.0</b>	<b>338.7</b>
<b>Volume Change from Prior Forecast</b>										
Alaska North Slope	-6.5	-19.3	-30.6	-8.9	17.7	20.4	17.3	17.0	11.0	8.9
Non-North Slope	1.1	3.1	3.1	3.0	2.9	2.8	2.8	2.6	2.6	2.5
<b>Total</b>	<b>-5.4</b>	<b>-16.2</b>	<b>-27.5</b>	<b>-5.9</b>	<b>20.6</b>	<b>23.2</b>	<b>20.0</b>	<b>19.6</b>	<b>13.6</b>	<b>11.4</b>
<b>Percent Change from Prior Forecast</b>										
Alaska North Slope	-1.3%	-3.7%	-5.7%	-1.8%	3.8%	4.6%	4.2%	4.5%	3.2%	2.8%
Non-North Slope	6.5%	21.0%	24.0%	25.7%	27.7%	29.4%	31.1%	32.2%	33.9%	35.9%
<b>Total</b>	<b>-1.0%</b>	<b>-3.0%</b>	<b>-5.0%</b>	<b>-1.1%</b>	<b>4.3%</b>	<b>5.2%</b>	<b>4.8%</b>	<b>5.1%</b>	<b>3.8%</b>	<b>3.5%</b>

# Annual Average Daily Crude Oil Production

By production area

Thousand Barrels per Day

History

Fiscal Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Alaska North Slope</b>										
Prudhoe Bay <sup>1,2</sup>	335.4	270.8	291.1	291.4	276.7	267.6	265.2	247.4	247.6	228.6
PBU Satellites <sup>1,3</sup>	82.1	75.7	67.5	67.9	63.1	55.4	50.7	46.5	44.3	41.5
GPMA <sup>4</sup>	47.5	36.9	44.3	38.5	34.0	30.8	29.7	26.3	26.2	22.3
Kuparuk	132.0	121.4	112.6	105.6	99.2	91.0	91.5	86.4	86.0	78.8
Kuparuk Satellites <sup>5</sup>	43.3	43.8	36.5	37.0	35.0	31.9	27.5	25.3	25.1	26.5
Endicott <sup>6</sup>	20.5	16.4	14.1	14.2	12.7	11.7	11.3	10.4	9.5	9.4
Alpine <sup>7</sup>	123.4	124.4	114.9	106.7	93.5	84.6	78.2	64.5	56.8	47.8
Offshore <sup>8</sup>	55.4	44.9	34.4	31.5	28.4	27.0	25.2	24.8	35.4	46.5
NPR-A <sup>9</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Point Thomson <sup>9</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Alaska North Slope</b>	<b>839.7</b>	<b>734.2</b>	<b>715.4</b>	<b>692.8</b>	<b>642.6</b>	<b>599.9</b>	<b>579.3</b>	<b>531.6</b>	<b>531.1</b>	<b>501.5</b>
<b>Cook Inlet</b>	<b>18.3</b>	<b>16.1</b>	<b>13.9</b>	<b>10.1</b>	<b>8.9</b>	<b>10.4</b>	<b>10.7</b>	<b>12.2</b>	<b>15.8</b>	<b>18.0</b>
<b>Total Alaska</b>	<b>858.0</b>	<b>750.4</b>	<b>729.4</b>	<b>702.9</b>	<b>651.5</b>	<b>610.3</b>	<b>590.0</b>	<b>543.8</b>	<b>546.9</b>	<b>519.5</b>

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# Annual Average Daily Crude Oil Production

By production area *(Continued)*

Thousand Barrels per Day

Forecast

Fiscal Year	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Alaska North Slope</b>										
Prudhoe Bay	229.7	228.4	225.6	218.0	206.8	194.5	183.5	171.0	156.6	144.1
PBU Satellites <sup>3</sup>	41.2	38.3	35.6	32.5	29.8	27.4	25.2	23.4	21.7	20.2
Greater Point McIntyre Area <sup>4</sup>	20.1	18.3	16.8	15.3	14.0	12.8	11.8	11.0	10.2	9.5
Kuparuk	83.9	84.4	81.1	80.0	75.9	72.2	68.4	63.5	59.4	55.6
Kuparuk Satellites <sup>5</sup>	28.5	28.7	29.0	29.4	27.0	25.2	22.7	21.3	19.8	17.9
Endicott <sup>6</sup>	8.3	7.5	6.9	6.3	5.8	5.4	5.0	4.6	4.3	4.0
Alpine <sup>7</sup>	45.2	47.0	54.1	49.2	46.5	41.1	36.3	32.3	28.9	26.0
Offshore <sup>8</sup>	41.6	42.3	39.3	44.5	39.8	33.7	28.7	24.7	21.5	18.7
NPR-A	0.0	0.0	0.0	3.9	6.9	4.2	2.7	1.7	1.2	0.8
Point Thomson	1.6	9.9	9.4	8.6	7.9	7.3	6.7	6.2	5.7	5.2
<b>Total Alaska North Slope</b>	<b>500.2</b>	<b>504.9</b>	<b>497.7</b>	<b>487.6</b>	<b>460.5</b>	<b>423.9</b>	<b>391.1</b>	<b>359.8</b>	<b>329.2</b>	<b>302.1</b>
<b>Cook Inlet</b>	<b>17.8</b>	<b>16.1</b>	<b>14.7</b>	<b>13.5</b>	<b>12.5</b>	<b>11.7</b>	<b>10.9</b>	<b>10.2</b>	<b>9.6</b>	<b>9.0</b>
<b>Total Alaska</b>	<b>518.0</b>	<b>521.0</b>	<b>512.4</b>	<b>501.1</b>	<b>473.0</b>	<b>435.5</b>	<b>402.0</b>	<b>370.0</b>	<b>338.7</b>	<b>311.1</b>

<sup>1</sup> Milne Point Unit production is now being reported with PBU Satellites instead of with PBU volume. Historical volumes will, therefore, not match the Fall 2011 RSB.

<sup>2</sup> Includes NGLs from Central Gas Facility shipped to TAPS.

<sup>3</sup> Aurora, Borealis, Midnight Sun, Orion, Polaris, Milne Point, Sag River, Schrader Bluff, Ugnu.

<sup>4</sup> Lisburne, Niakuk, Point McIntyre, Raven, West Beach, West Niakuk.

<sup>5</sup> Meltwater, NEWS, Tabasco, Tarn, West Sak.

<sup>6</sup> Endicott, Minke, Sag Delta, Eider, Badami.

<sup>7</sup> Alpine, Fiord, Nanuq, Qannik, Mustang (after 2016).

<sup>8</sup> Northstar, Ooguruk, Nikaitchuq, Liberty (delayed).

<sup>9</sup> Not in production.

NOTE: Totals may show slight differences from other sources due to rounding and aggregation differences.

# Lease Expenditures

Operating and capital expenditures by geographic region

Fiscal Year	Millions of Dollars							
	History							
	2008	2009	2010	2011	2012	2013	2014	2015
<b>North Slope Lease Expenditures</b>								
Operating Expenditures [OPEX]	2,027	2,085	2,270	2,614	3,001	3,110	3,254	3,439
Capital Expenditures [CAPEX]	1,953	2,212	2,389	2,317	2,383	2,969	3,738	3,992
<b>Total North Slope Lease Expenditures</b>	<b>3,980</b>	<b>4,297</b>	<b>4,659</b>	<b>4,931</b>	<b>5,385</b>	<b>6,079</b>	<b>6,992</b>	<b>7,431</b>
<b>Non-North Slope (includes Cook Inlet)</b>								
Operating Expenditures [OPEX]	279	201	165	191	245	261	252	242
Capital Expenditures [CAPEX]	247	341	168	123	350	415	595	640
<b>Total Non-North Slope Lease Expenditures</b>	<b>526</b>	<b>542</b>	<b>332</b>	<b>314</b>	<b>594</b>	<b>676</b>	<b>848</b>	<b>881</b>
<b>Total Statewide Lease Expenditures</b>								
Operating Expenditures [OPEX]	2,306	2,286	2,435	2,805	3,246	3,370	3,506	3,680
Capital Expenditures [CAPEX]	2,200	2,553	2,557	2,440	2,733	3,384	4,333	4,632
<b>Total Statewide Lease Expenditures</b>	<b>4,506</b>	<b>4,839</b>	<b>4,991</b>	<b>5,245</b>	<b>5,979</b>	<b>6,754</b>	<b>7,839</b>	<b>8,312</b>

(Table continued, next page)

# Lease Expenditures

Operating and capital expenditures by geographic region *(Continued)*

Fiscal Year	Millions of Dollars									
	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>North Slope Lease Expenditures</b>										
Operating Expenditures [OPEX]	3,233	3,141	3,261	3,287	3,264	3,195	3,013	2,832	2,650	2,486
Capital Expenditures [CAPEX]	3,656	3,324	3,246	2,745	2,327	2,132	1,999	1,890	1,779	1,676
<b>Total North Slope Lease Expenditures</b>	<b>6,889</b>	<b>6,465</b>	<b>6,507</b>	<b>6,032</b>	<b>5,592</b>	<b>5,327</b>	<b>5,012</b>	<b>4,723</b>	<b>4,429</b>	<b>4,162</b>
<b>Non-North Slope (includes Cook Inlet)</b>										
Operating Expenditures [OPEX]	295	281	284	290	289	287	280	274	268	263
Capital Expenditures [CAPEX]	584	387	362	313	306	308	238	202	202	156
<b>Total Non-North Slope Lease Expenditures</b>	<b>880</b>	<b>669</b>	<b>646</b>	<b>603</b>	<b>595</b>	<b>596</b>	<b>518</b>	<b>476</b>	<b>470</b>	<b>419</b>
<b>Total Statewide Lease Expenditures</b>										
Operating Expenditures [OPEX]	3,528	3,422	3,545	3,577	3,553	3,483	3,293	3,106	2,918	2,749
Capital Expenditures [CAPEX]	4,241	3,712	3,608	3,058	2,634	2,440	2,237	2,092	2,981	1,832
<b>Total Statewide Lease Expenditures</b>	<b>7,769</b>	<b>7,134</b>	<b>7,153</b>	<b>6,636</b>	<b>6,187</b>	<b>5,923</b>	<b>5,529</b>	<b>5,198</b>	<b>4,899</b>	<b>4,582</b>

# Production Tax Estimate for FY 2015

## Using income statement format

**Note:** This table presents an approximation of the production tax calculation, and does not match production tax estimates throughout this publication.

	Price	Barrels (Thousands)	Value (Millions of Dollars)
Avg ANS Oil Price (\$/bbl) and Daily Production	\$72.58	501.5	\$36.4
<b>Annual Production</b>			
Total		183,048	\$13,285.2
Royalty, Federal and other barrels <sup>1</sup>		-24,445	(\$1,774.2)
<b>Taxable barrels from companies with tax liability<sup>2</sup></b>		<b>158,603</b>	<b>\$11,511.1</b>
<b>Downstream (Transportation) Costs (\$/bbl)</b>			
ANS Marine Transportation	-\$3.25		
TAPS Tariff	-\$6.11		
Other	-\$0.38		
<b>Total Transportation Costs</b>	<b>-\$9.74</b>	<b>158,603</b>	<b>(\$1,545.4)</b>
<b>Gross Value at Point of Production (GVPP)</b>	<b>\$62.83</b>		<b>\$9,965.64</b>
<b>Deductible Lease Expenditures<sup>3</sup></b>			
Deductible Operating Expenditures	-\$20.92		(\$3,318.6)
Deductible Capital Expenditures	-\$22.67		(\$3,595.8)
<b>Total Lease Expenditures</b>	<b>-\$43.60</b>	<b>158,603</b>	<b>(\$6,914.4)</b>
<b>Production Tax</b>			
Gross minimum tax (4%*GVPP)			\$398.6
Production Tax Value (PTV)			\$3,051.2
Gross Value Reduction (GVR)			(\$62.8)
Production Tax Value (PTV) after GVR			\$2,988.4
Base Tax (35%*PTV after GVR)			\$1,046.0
<b>Total Tax before credits (base tax or minimum tax)</b>			<b>\$1,046.0</b>
<b>North Slope Credits applied against tax liability<sup>4</sup></b>			<b>(\$655.0)</b>
<b>Estimated Total Tax after credits<sup>5</sup></b>			<b>\$391.0</b>

<sup>1</sup> Royalty, Federal and other barrels represents the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production. For purposes of this calculation, it also includes barrels produced by companies that are not expected to have a tax liability.

<sup>2</sup> This number does not represent all taxable barrels, only those produced by companies that are expected to have a tax liability.

<sup>3</sup> Deductible Lease Expenditures represents the Department of Revenue's best estimate of lease expenditures that are applicable to companies that are likely to have a tax liability for the year. The per-barrel expenditures reflect expenditures per taxable barrel and do not reflect expenditures per all barrels produced.

<sup>4</sup> Under SB21, some credits may reduce a producer's liability below the minimum tax; those provisions are reflected in these estimates. For more information on how specific tax credits may be applied, please see Chapter 8 of this publication.

<sup>5</sup> Estimated Total Tax after credits is a calculated total based on constant daily production, constant oil prices, constant expenditures for the entire year, and no company-specific information. Variations in these assumptions captured in larger revenue models will produce results that differ from the estimates in the simple model above. Therefore, the estimate shown here will not exactly match the Department of Revenue's official revenue numbers published elsewhere in this book.

# Production Tax Estimate for FY 2016

Using income statement format

**Note:** This table presents an approximation of the production tax calculation, and does not match production tax estimates throughout this publication.

	Price	Barrels (Thousands)	Value (Millions of Dollars)
Avg ANS Oil Price (\$/bbl) and Daily Production	\$49.58	500.2	\$24.8
<b>Annual Production</b>			
Total		183,087	\$9,077.8
Royalty, Federal and other barrels <sup>1</sup>		-23,067	(\$1,143.7)
<b>Taxable barrels from companies with tax liability<sup>2</sup></b>		160,019	\$7,934.1
<b>Downstream (Transportation) Costs (\$/bbl)</b>			
ANS Marine Transportation	-\$3.28		
TAPS Tariff	-\$6.41		
Other	-\$0.87		
<b>Total Transportation Costs</b>	-\$10.56	160,019	(\$1,690.3)
<b>Gross Value at Point of Production (GVPP)</b>	\$39.02		\$6,243.80
<b>Deductible Lease Expenditures<sup>3</sup></b>			
Deductible Operating Expenditures	-\$18.46		(\$2,954.1)
Deductible Capital Expenditures	-\$17.68		(\$2,828.4)
<b>Total Lease Expenditures</b>	-\$36.14	160,019	(\$5,782.4)
<b>Production Tax</b>			
Gross minimum tax (4%*GVPP)			\$249.8
Production Tax Value (PTV)			\$461.3
Gross Value Reduction (GVR)			(\$15.2)
Production Tax Value (PTV) after GVR			\$446.1
Base Tax (35%*PTV after GVR)			\$156.1
<b>Total Tax before credits (base tax or minimum tax)</b>			\$249.8
<b>North Slope Credits applied against tax liability<sup>4</sup></b>			(\$105.0)
<b>Estimated Total Tax after credits<sup>5</sup></b>			\$144.8

<sup>1</sup> Royalty, Federal and other barrels represents the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production. For purposes of this calculation, it also includes barrels produced by companies that are not expected to have a tax liability.

<sup>2</sup> This number does not represent all taxable barrels, only those produced by companies that are expected to have a tax liability.

<sup>3</sup> Deductible Lease Expenditures represents the Department of Revenue's best estimate of lease expenditures that are applicable to companies that are likely to have a tax liability for the year. The per-barrel expenditures reflect expenditures per taxable barrel and do not reflect expenditures per all barrels produced.

<sup>4</sup> Under SB21, some credits may reduce a producer's liability below the minimum tax; those provisions are reflected in these estimates. For more information on how specific tax credits may be applied, please see Chapter 8 of this publication.

<sup>5</sup> Estimated Total Tax after credits is a calculated total based on constant daily production, constant oil prices, constant expenditures for the entire year, and no company-specific information. Variations in these assumptions captured in larger revenue models will produce results that differ from the estimates in the simple model above. Therefore, the estimate shown here will not exactly match the Department of Revenue's official revenue numbers published elsewhere in this book.

# Production Tax Estimate for FY 2017

Using income statement format

**Note:** This table presents an approximation of the production tax calculation, and does not match production tax estimates throughout this publication.

	Price	Barrels (Thousands)	Value (Millions of Dollars)
Avg ANS Oil Price (\$/bbl) and Daily Production	\$56.24	504.9	\$28.4
<b>Annual Production</b>			
Total		184,274	\$10,363.6
Royalty, Federal and other barrels <sup>1</sup>		-25,092	(\$1,411.2)
<b>Taxable barrels from companies with tax liability<sup>2</sup></b>		<b>159,182</b>	<b>\$8,952.4</b>
<b>Downstream (Transportation) Costs (\$/bbl)</b>			
ANS Marine Transportation	-\$3.37		
TAPS Tariff	-\$6.73		
Other	-\$1.05		
<b>Total Transportation Costs</b>	<b>-\$11.16</b>	<b>159,182</b>	<b>(\$1,776.5)</b>
<b>Gross Value at Point of Production (GVPP)</b>	<b>\$45.08</b>		<b>\$7,175.84</b>
<b>Deductible Lease Expenditures<sup>3</sup></b>			
Deductible Operating Expenditures	-\$18.95		(\$3,017.0)
Deductible Capital Expenditures	-\$17.66		(\$2,810.5)
<b>Total Lease Expenditures</b>	<b>-\$36.61</b>	<b>159,182</b>	<b>(\$5,827.5)</b>
<b>Production Tax</b>			
Gross minimum tax (4%*GVPP)			\$287.0
Production Tax Value (PTV)			\$1,348.3
Gross Value Reduction (GVR)			(\$43.8)
Production Tax Value (PTV) after GVR			\$1,304.5
Base Tax (35%*PTV after GVR)			\$456.6
<b>Total Tax before credits (base tax or minimum tax)</b>			<b>\$456.6</b>
<b>North Slope Credits applied against tax liability<sup>4</sup></b>			<b>(\$285.0)</b>
<b>Estimated Total Tax after credits<sup>5</sup></b>			<b>\$171.6</b>

<sup>1</sup> Royalty, Federal and other barrels represents the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production. For purposes of this calculation, it also includes barrels produced by companies that are not expected to have a tax liability.

<sup>2</sup> This number does not represent all taxable barrels, only those produced by companies that are expected to have a tax liability.

<sup>3</sup> Deductible Lease Expenditures represents the Department of Revenue's best estimate of lease expenditures that are applicable to companies that are likely to have a tax liability for the year. The per-barrel expenditures reflect expenditures per taxable barrel and do not reflect expenditures per all barrels produced.

<sup>4</sup> Under SB21, some credits may reduce a producer's liability below the minimum tax; those provisions are reflected in these estimates. For more information on how specific tax credits may be applied, please see Chapter 8 of this publication.

<sup>5</sup> Estimated Total Tax after credits is a calculated total based on constant daily production, constant oil prices, constant expenditures for the entire year, and no company-specific information. Variations in these assumptions captured in larger revenue models will produce results that differ from the estimates in the simple model above. Therefore, the estimate shown here will not exactly match the Department of Revenue's official revenue numbers published elsewhere in this book.



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