

01/25/16

PRESENTATION

2015 FALL

REVENUE

FORECAST AND

STANDARD &

POOR REPORT

<TARGET><BILL></BILL><SUBJECT>01-25-16 PRESENTATION
2015 FALL REVENUE FORECAST AND STANDARD and POOR
REPORT</SUBJECT><COMM>SFIN29</COMM></TARGET>



Alaska Department of Revenue



Fall 2015 Revenue Forecast Presentation

January 25, 2016

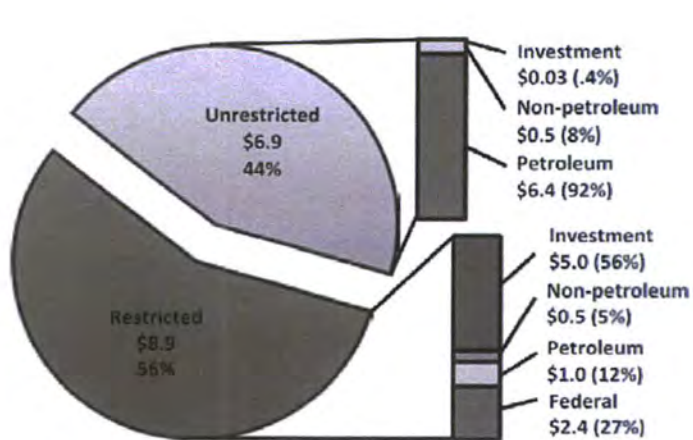
Randall Hoffbeck, Commissioner
Alaska Department of Revenue



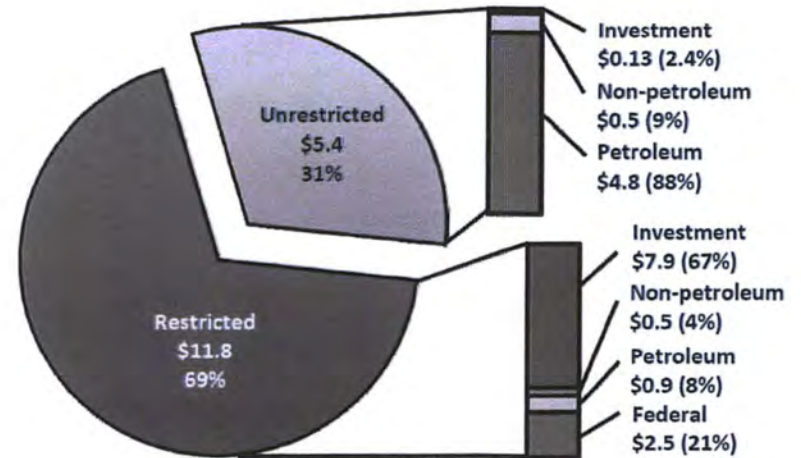
Forward Looking Statements

- 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.

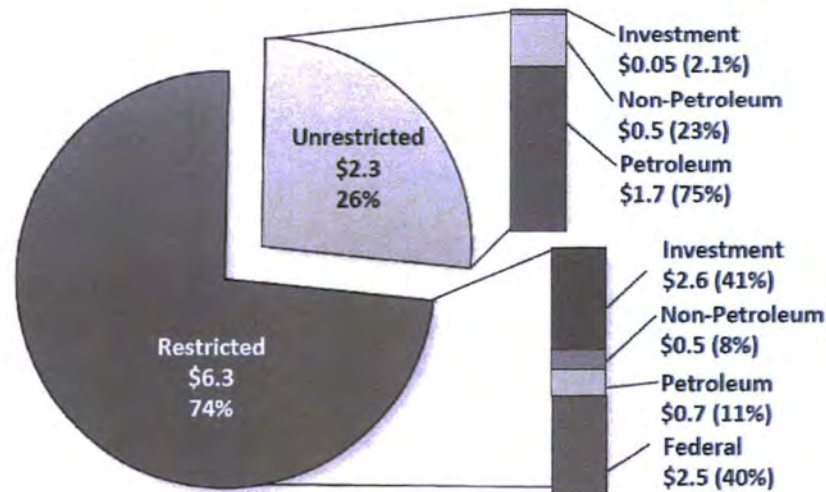
Structure of Revenue FY 2013, FY 2014, FY 2015



FY 2013



FY 2014



FY 2015

FALL 2015 Revenue Forecast



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 liability¹

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

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



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

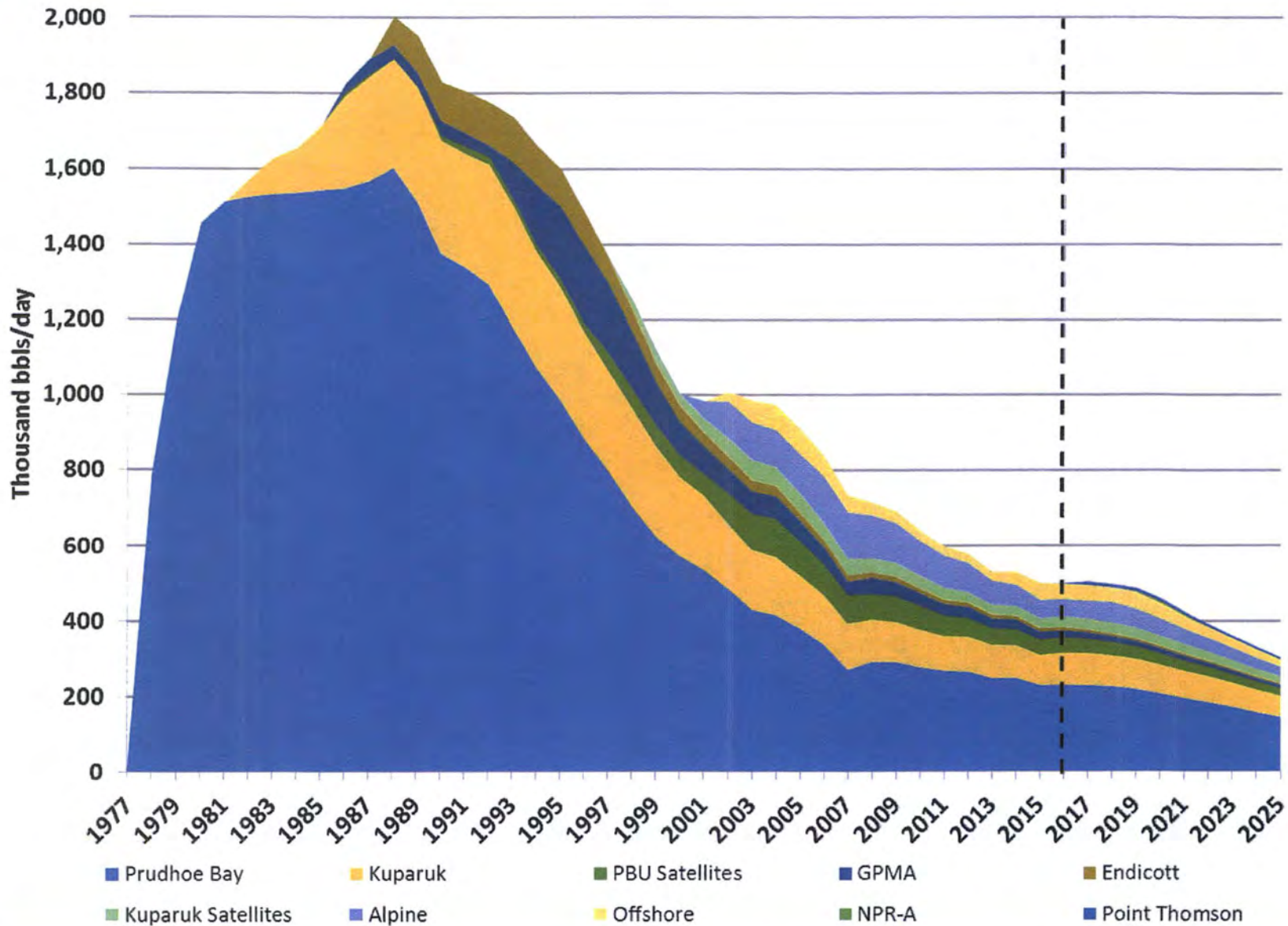
FALL 2015 HIGHLIGHTS

- 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.

Fall 2015 Production Forecast

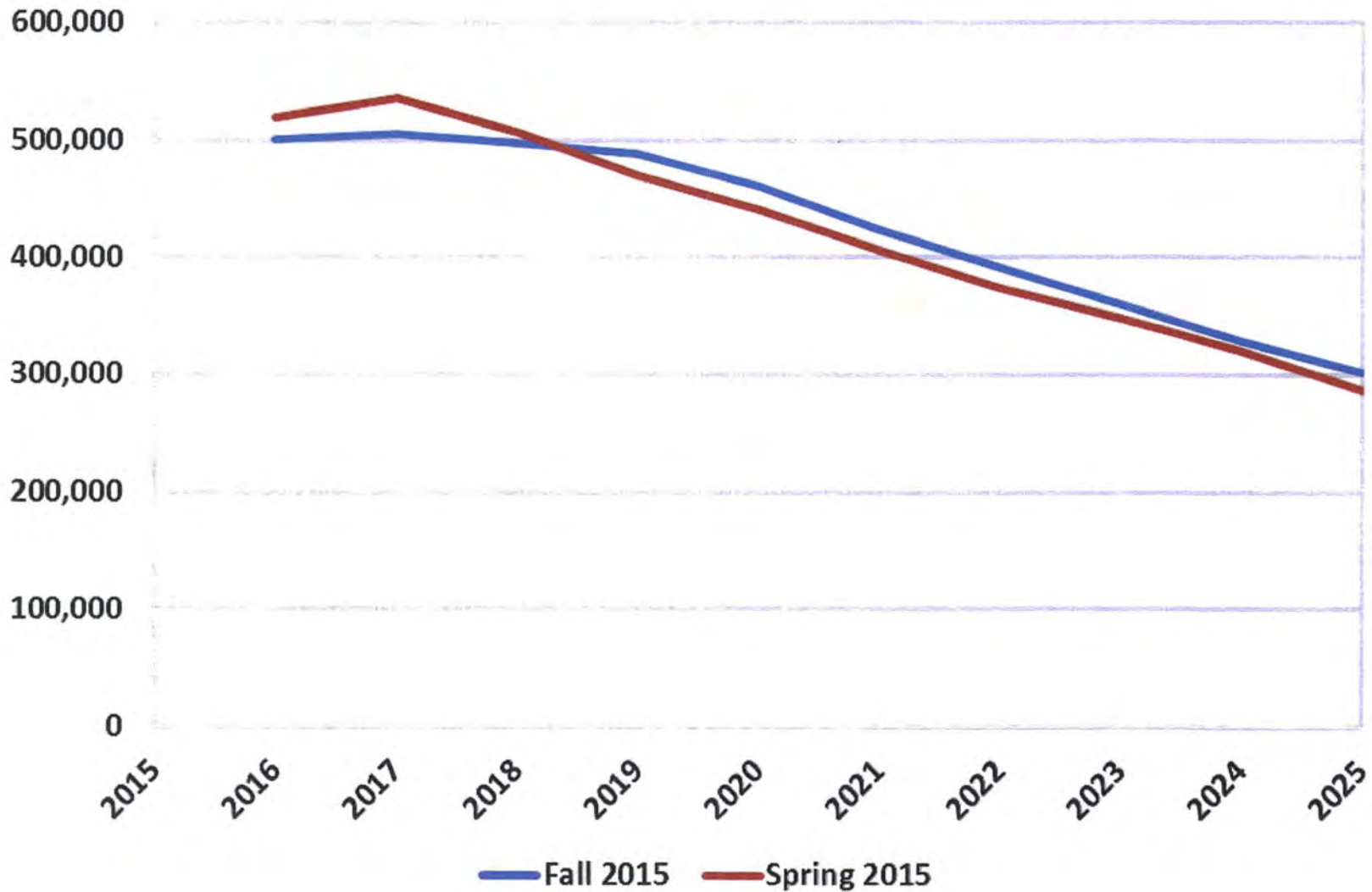


Production History and Forecast



Source: Department of Revenue - Revenue Sources Book Fall 2015

ANS Production Forecast Comparison

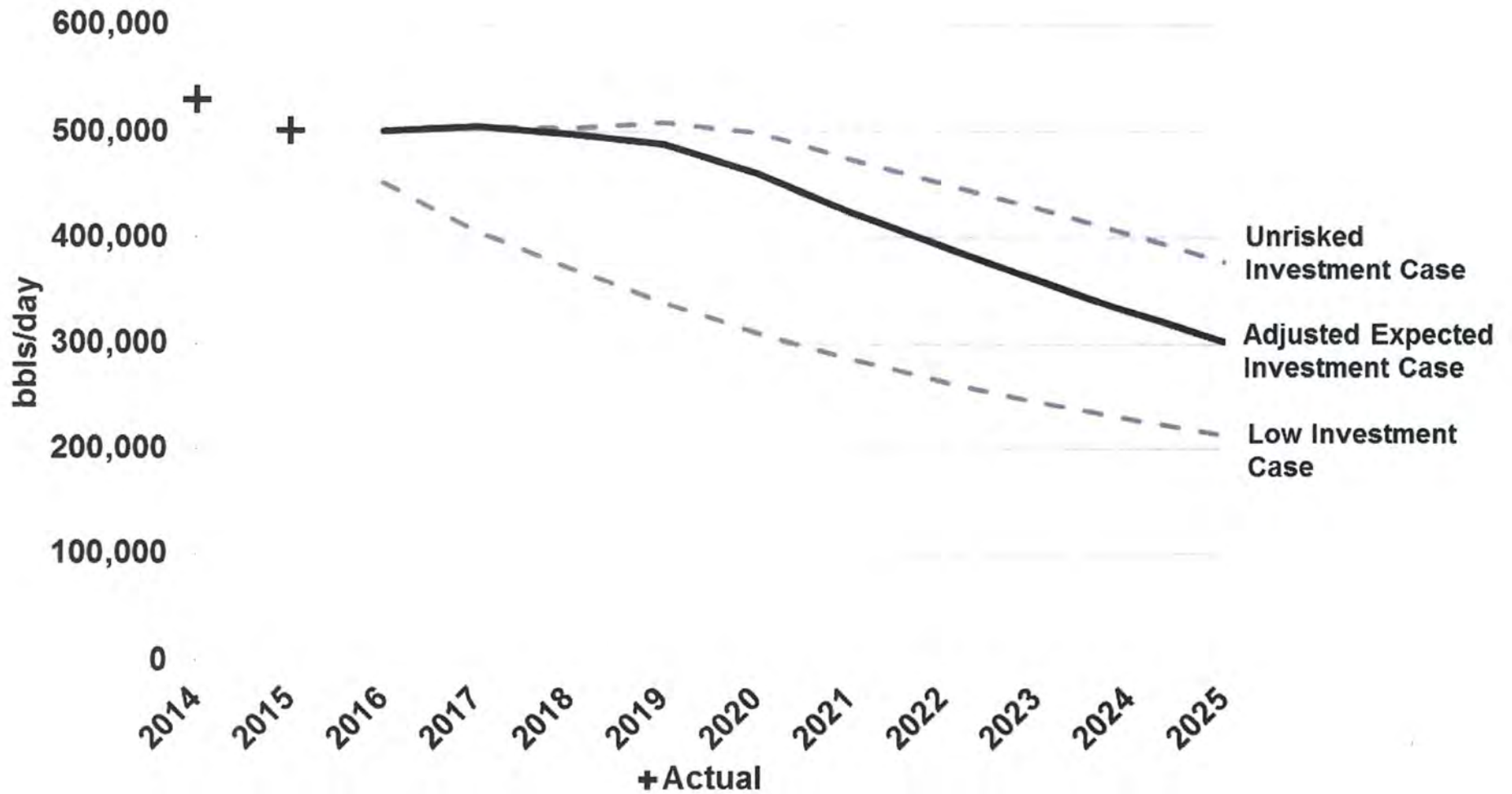


Source: Department of Revenue - Revenue Sources Book Spring 2015 and Fall 2015

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

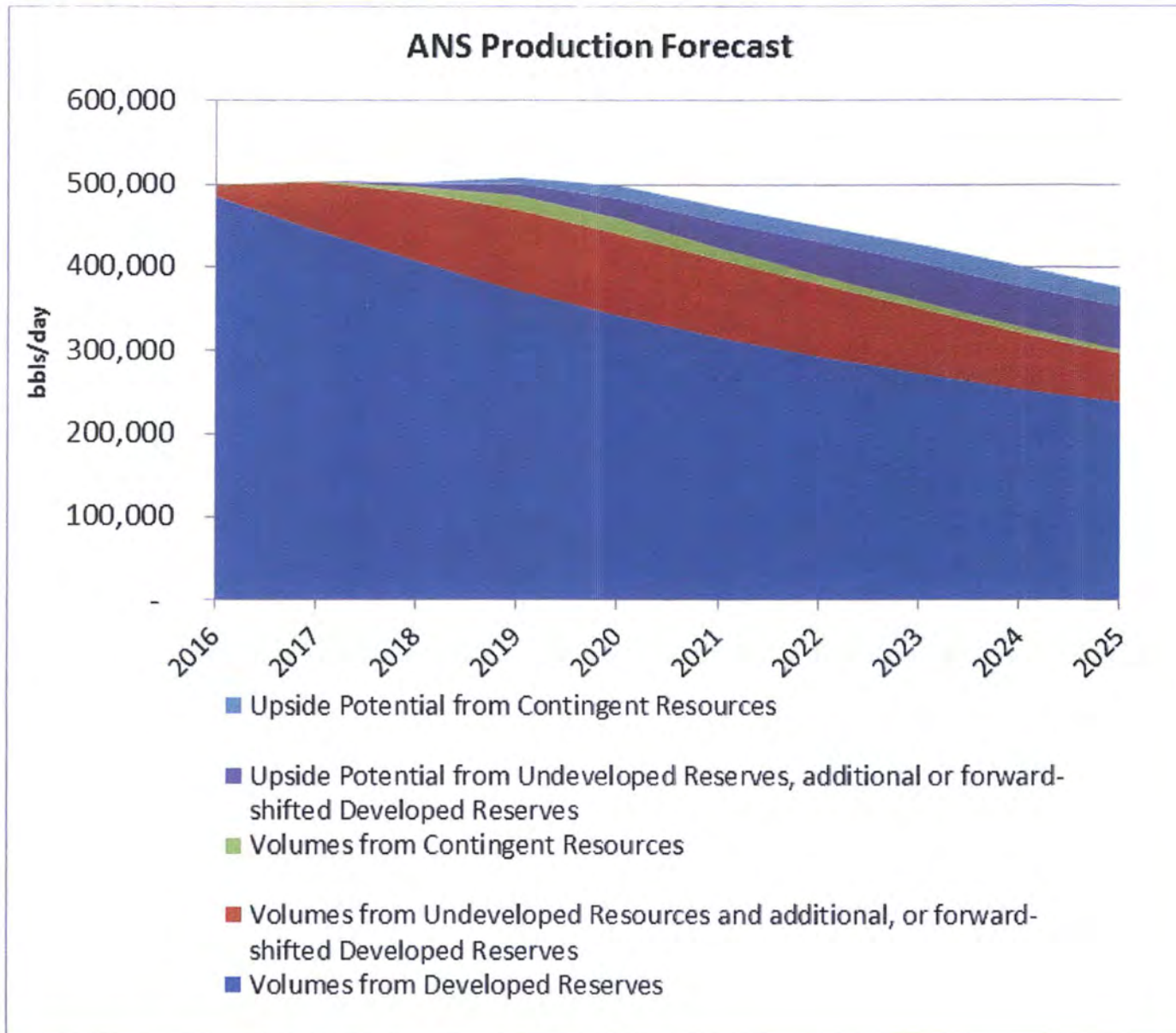


Source: Department of Revenue - Revenue Sources Book Fall 2015

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

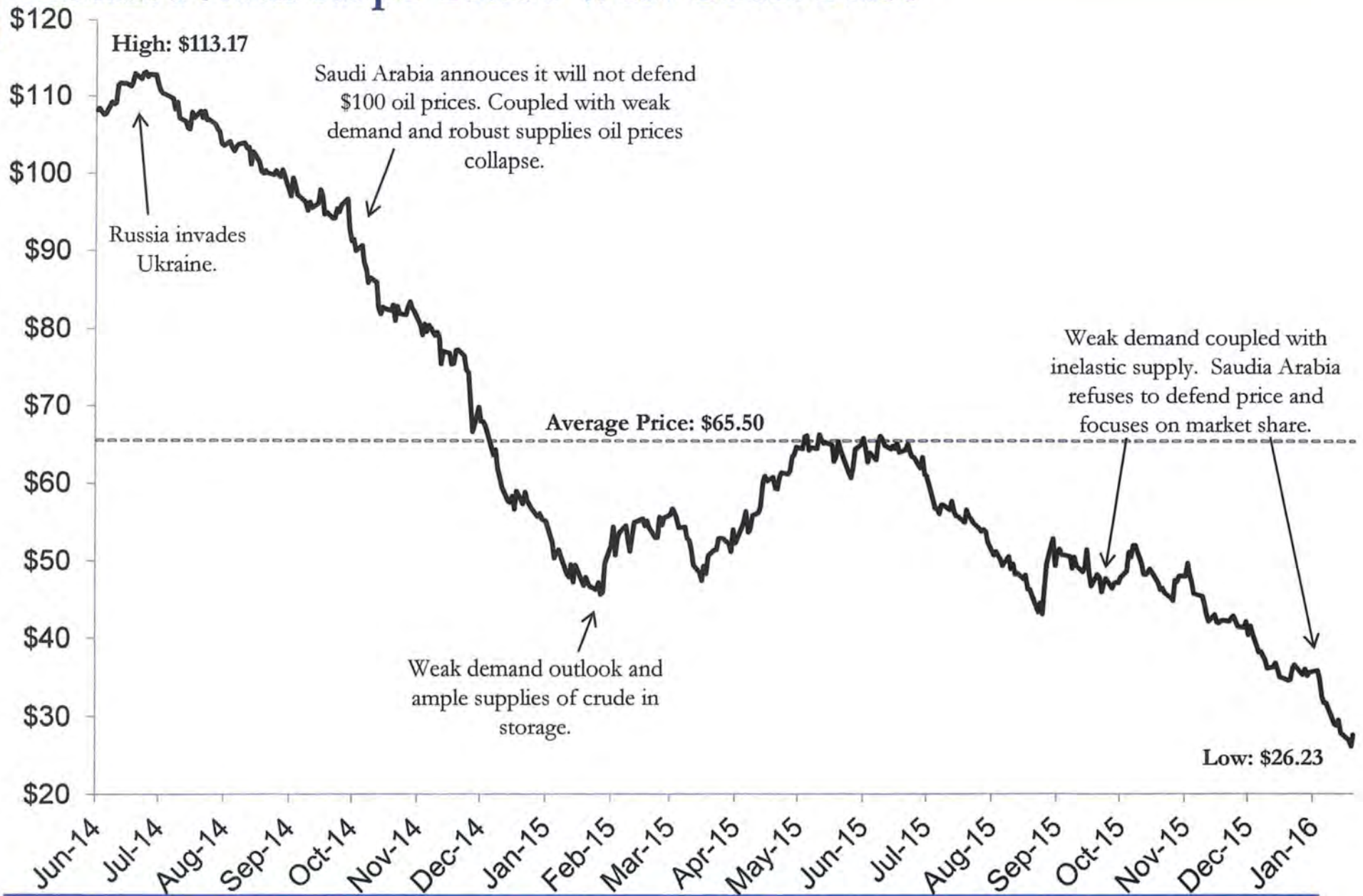


Source: Department of Revenue - Revenue Sources Book Fall 2015

Fall 2015 Price Forecast

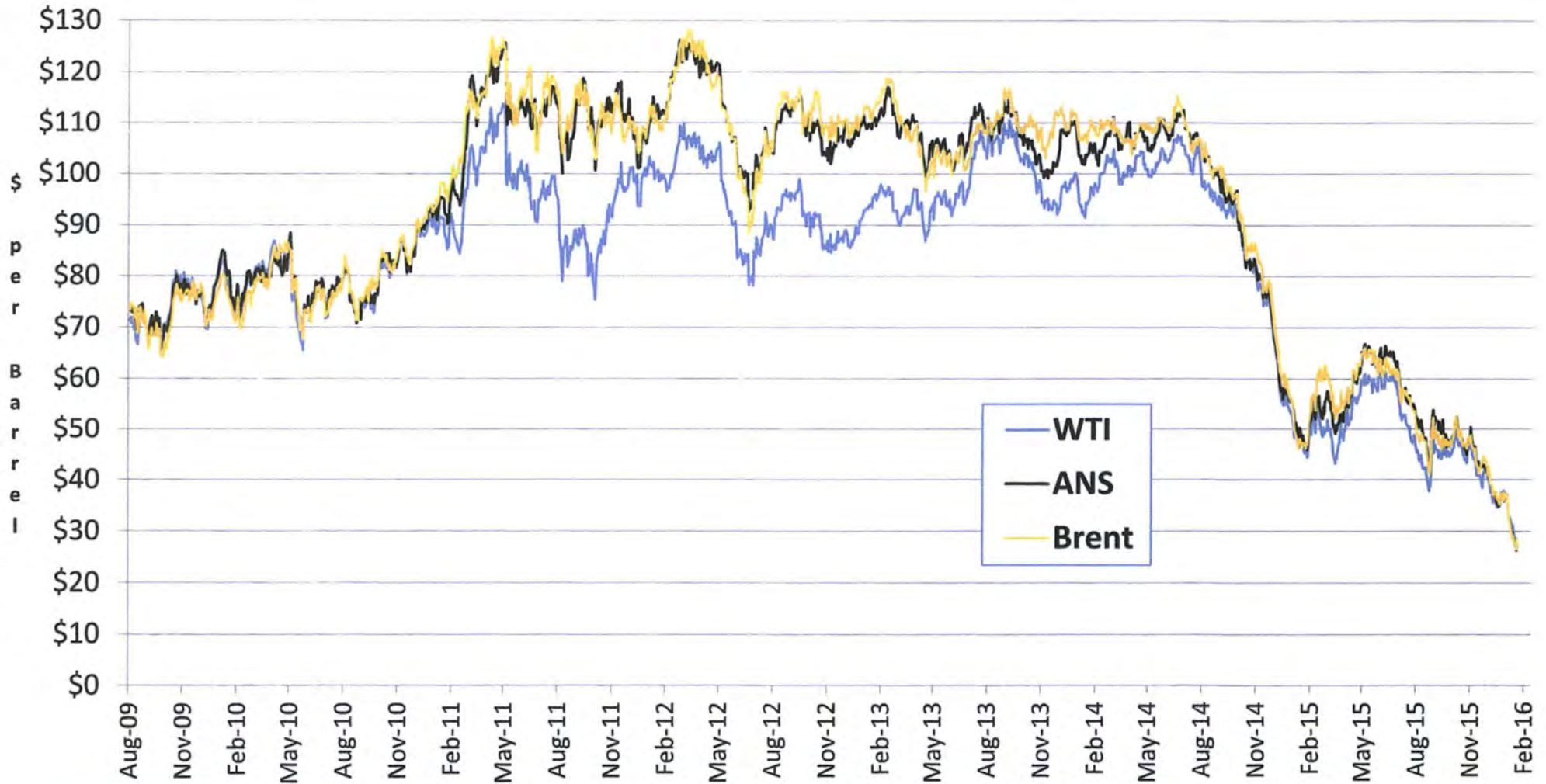


Alaska North Slope Crude West Coast Price



Source: Department of Revenue – Economic Research

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

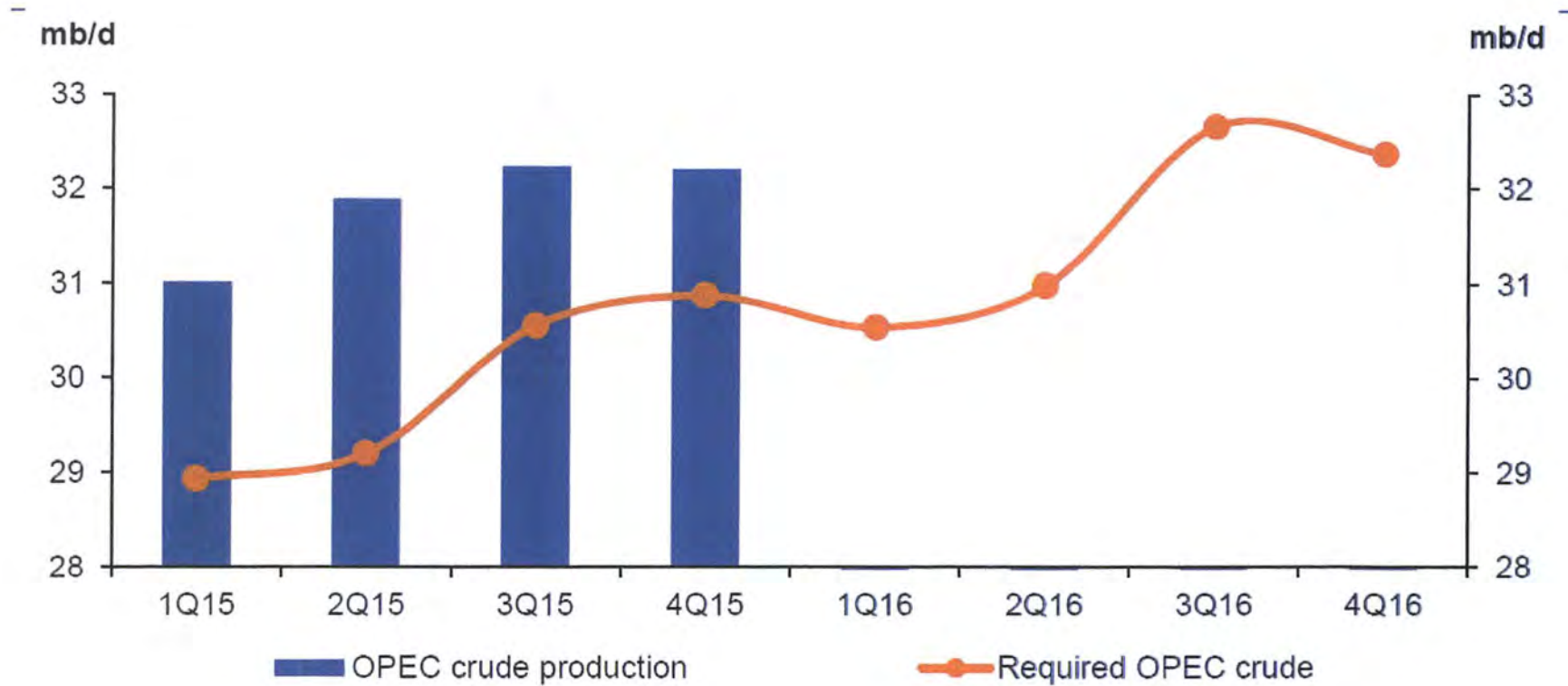


Source: Platts

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.

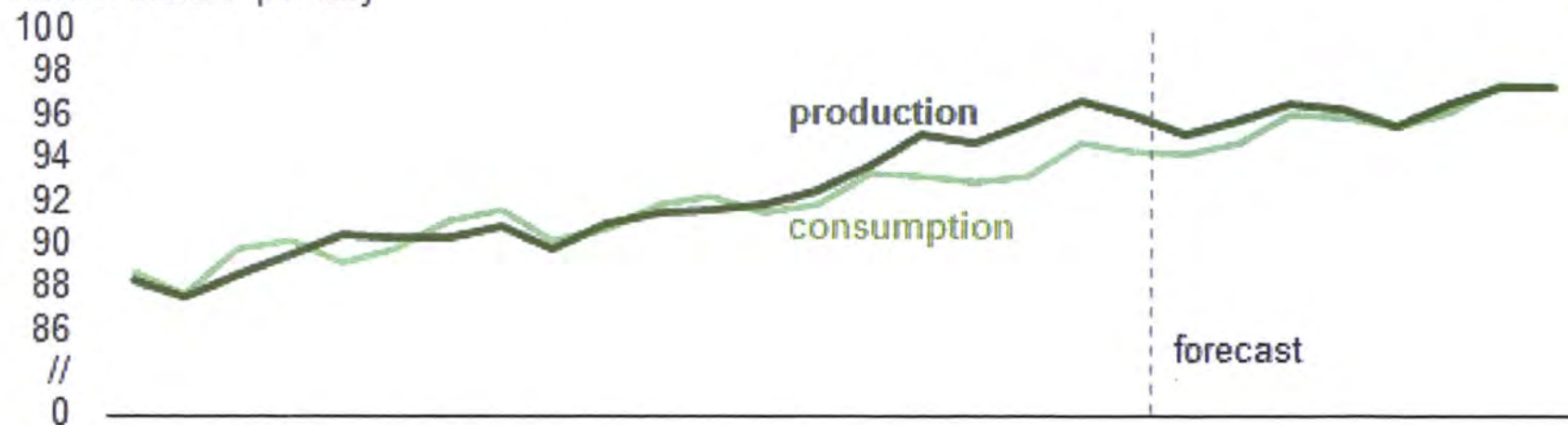
OPEC's view of supply and demand...



It's about spare capacity....

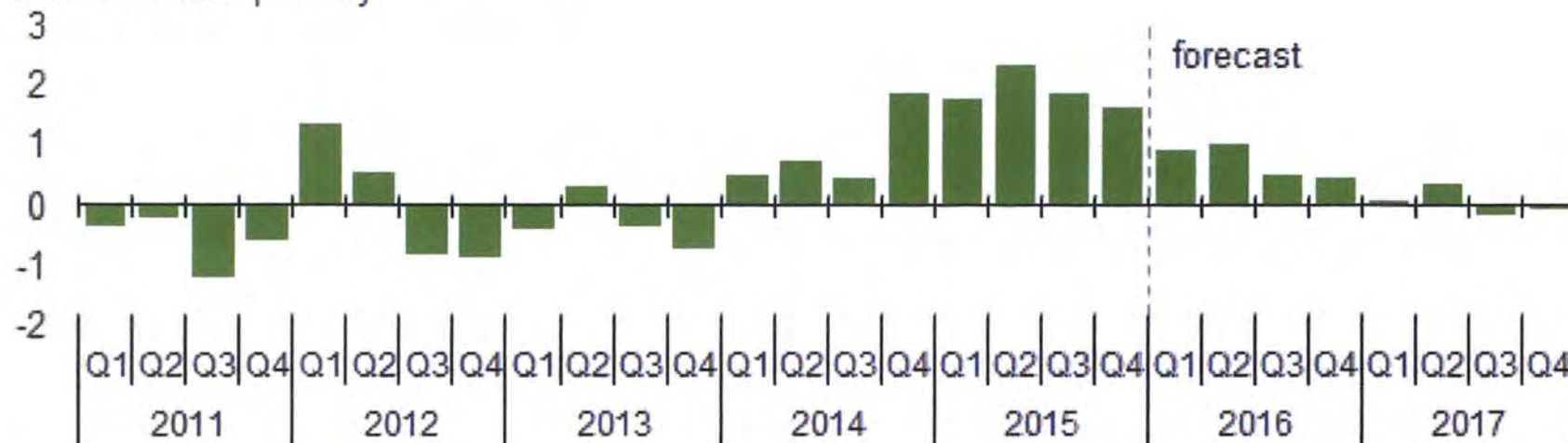
Global production and consumption of crude oil and other liquids (2011-17)

million barrels per day



Implied stock change (2011-17)

million barrels per day

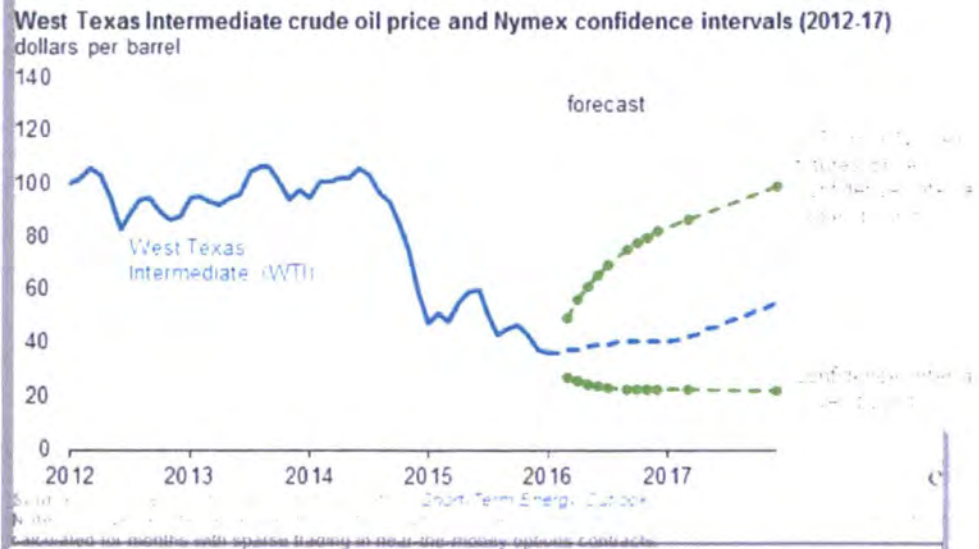


Base Price Forecast Methodology

- **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.

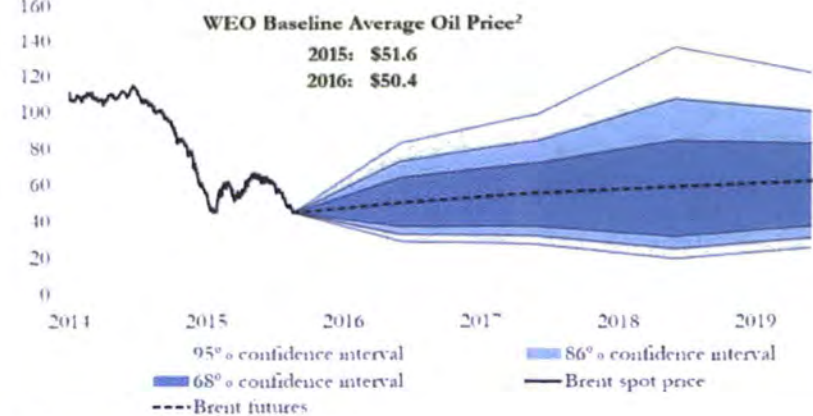
Consensus view that the distribution is wide

Crude oil prices to remain relatively low through 2016 and 2017



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

Brent Crude Oil Price¹ (U.S. dollars per barrel)



Sources: Bloomberg, and IMF staff calculations.

¹ As of August 20, 2015.

² Average of WTI, Brent, and the Dubai Fateh prices.

Source: IMF

Fall 2015 ANS Revenue Forecast Prices

Percentile	FY 2016	FY 2016	FY 2016	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

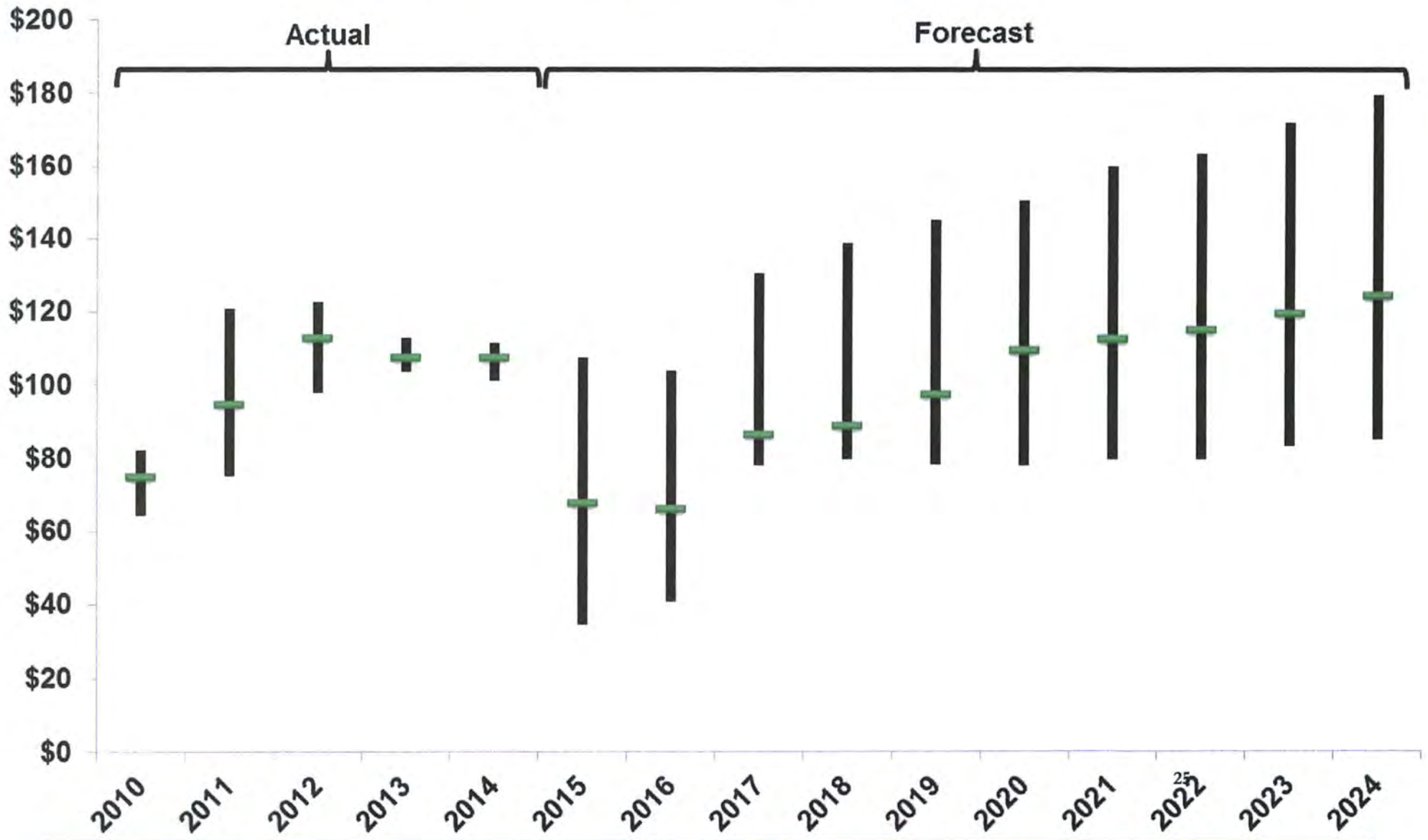
“What if the oil price is...” for the remainder of FY 2016

ANS Price Sensitivity									
"What if price is..."	\$ 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
8/1/2015	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
10/1/2015	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
12/1/2015	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
2/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00
3/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00
4/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00
5/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00
6/1/2016	60.00	55.00	50.00	45.00	40.00	35.00	30.00	25.00	20.00
Forecast Price	\$ 53.57	\$ 51.07	\$ 48.57	\$ 46.07	\$ 43.57	\$ 41.07	\$ 38.57	\$ 36.07	\$ 33.57

Source for actuals: Prevailing Values, DOR Tax Division website

Historical ANS West Coast FY Oil Price Bands:

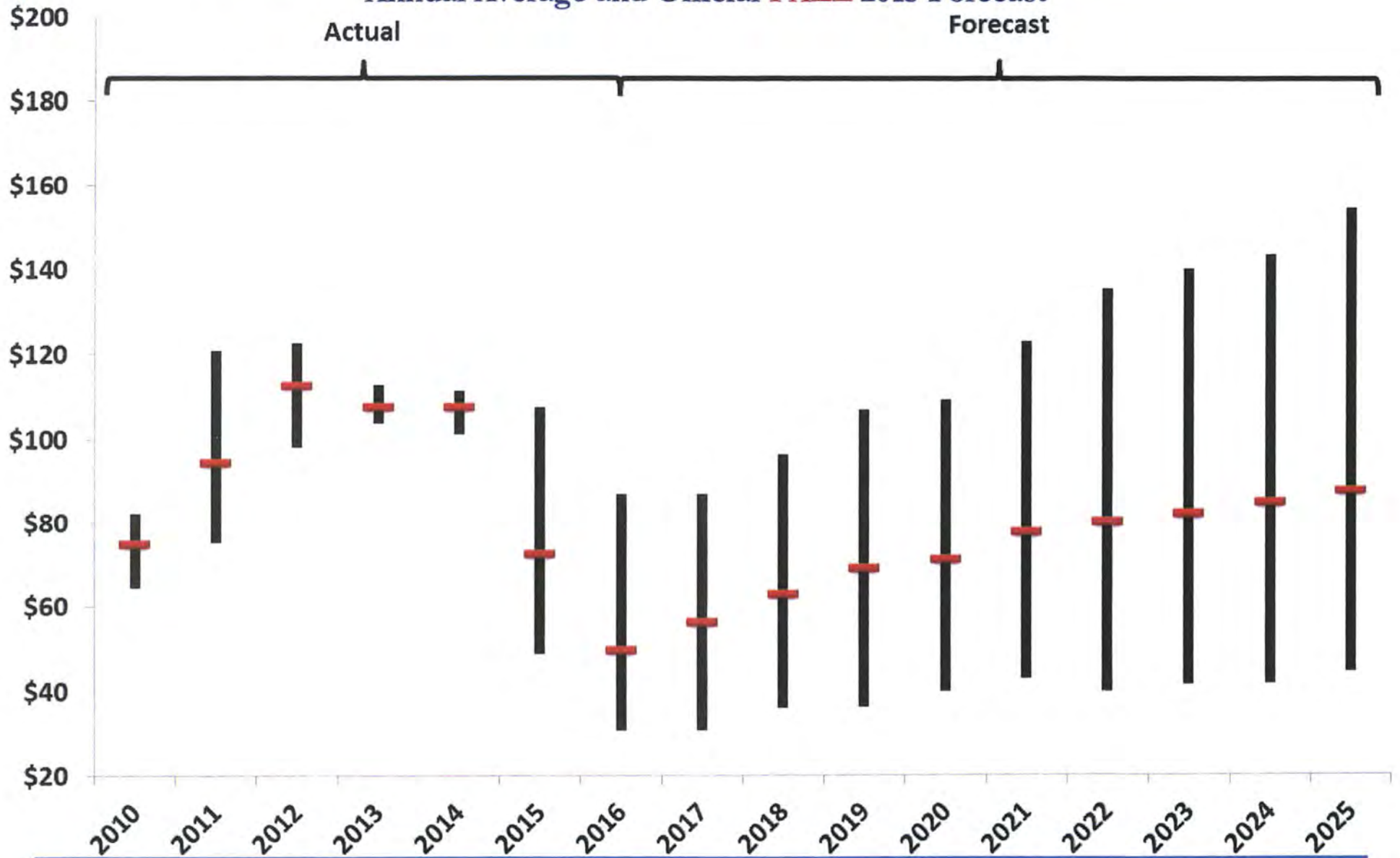
Annual Average and Official **SPRING** 2015 Forecast



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

Changes from Spring 2015 Forecast



COMPARISON – SPRING 2015 vs. FALL 2015 FORECASTS

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

FY 2017	Spring 2015 Forecast	Fall 2015 Forecast	Difference	Change
Oil Price (ANS West Coast per barrel)	\$86.66	\$56.24	-\$30.42	-35%
ANS Oil Production (THSbbls/day)	535.5	504.9	-30.6	-6%
GFUR (\$ millions)	\$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

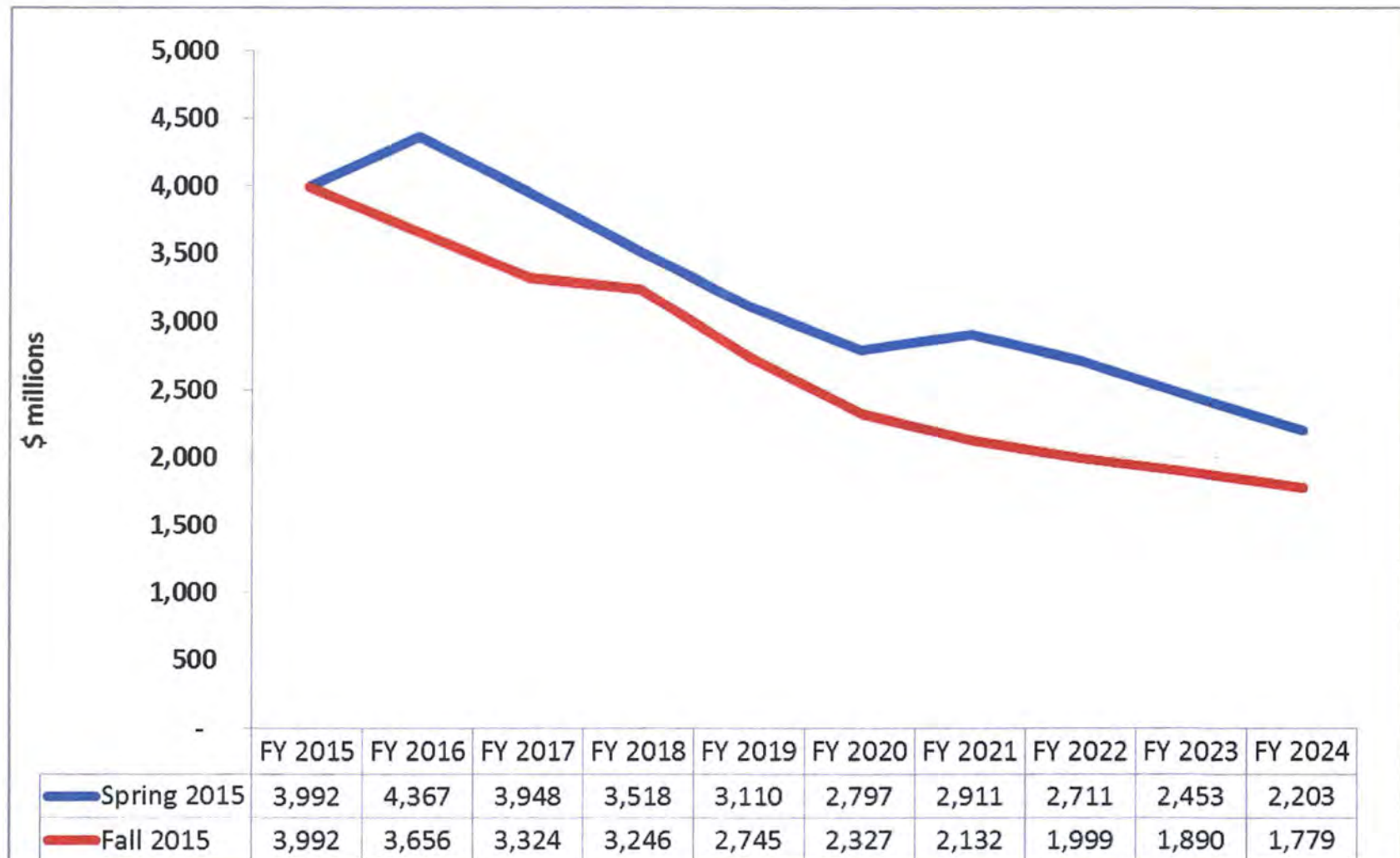
Component	Spring 2015 Forecast	Fall 2015 Forecast	Difference
ANS Production (THSbbls/day)	535.5	504.9	(30.6)
ANS Price	\$86.66	\$56.24	(\$30.42)
ANS Deductible Lease Expenditures (\$ millions)	\$6,847	\$5,828	(\$1,020)
Transportation Costs (\$/barrel)	\$9.82	11.16	1.34

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

Simplified calculation, does not represent any specific company value.

Assumes 12.5% royalty.

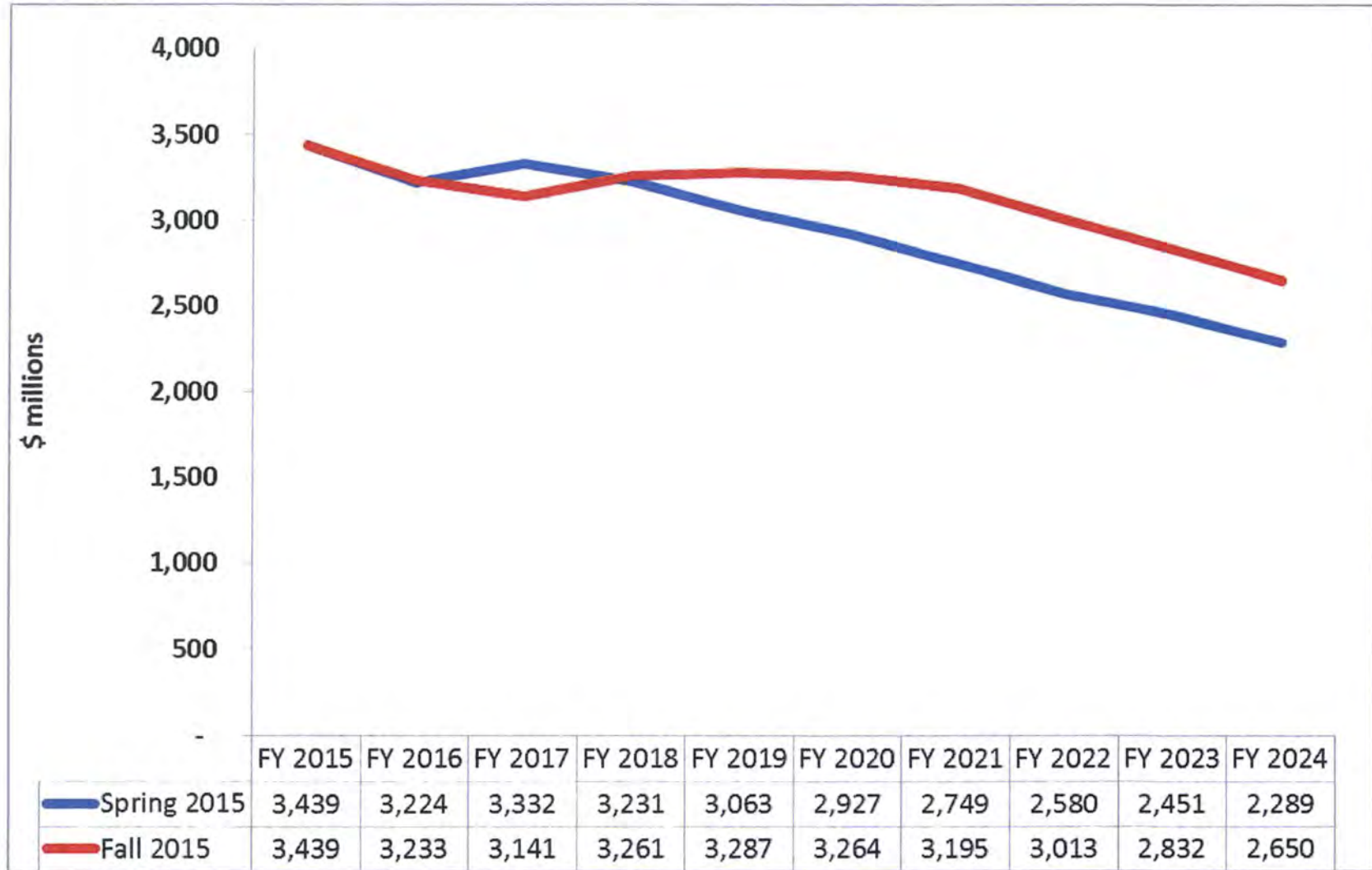
NORTH SLOPE CAPITAL EXPENDITURE FORECAST CHANGE



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



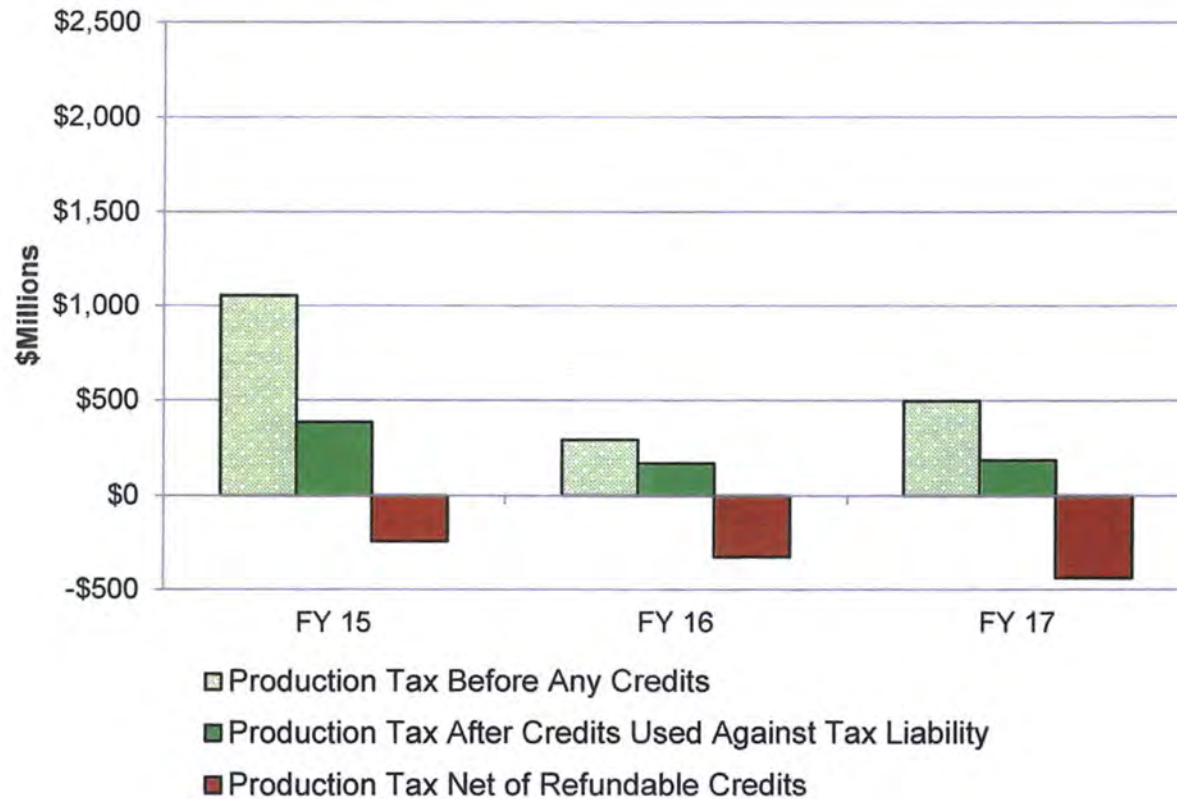
Note: These estimates include lease expenditures by companies that are not expected to have a tax liability.

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

Fall 2015 Credits Forecast

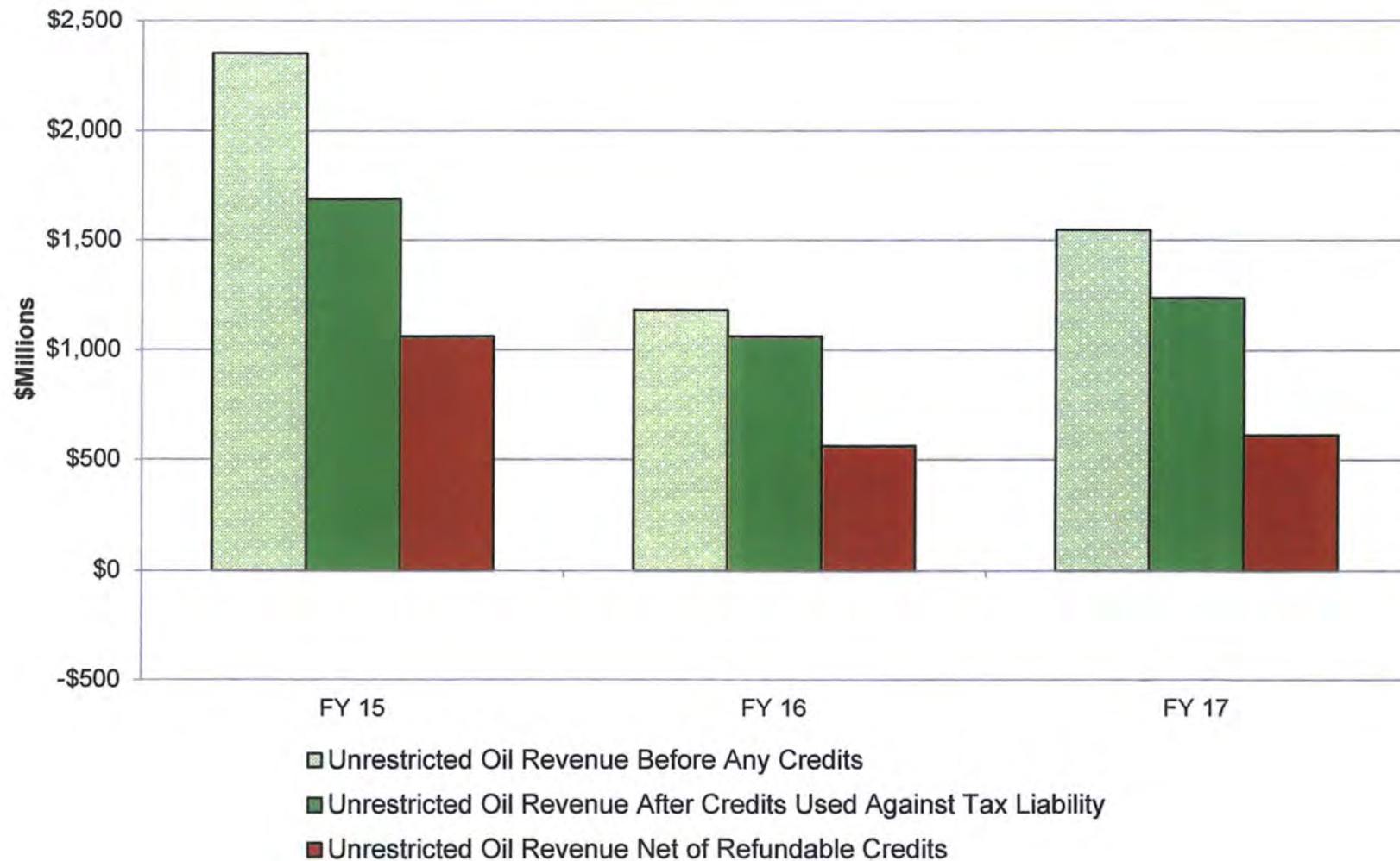


Net Tax Credits vs. Production Tax



Source: Department of Revenue - Revenue Sources Book Fall 2015

Unrestricted Oil Revenue* and Tax Credits



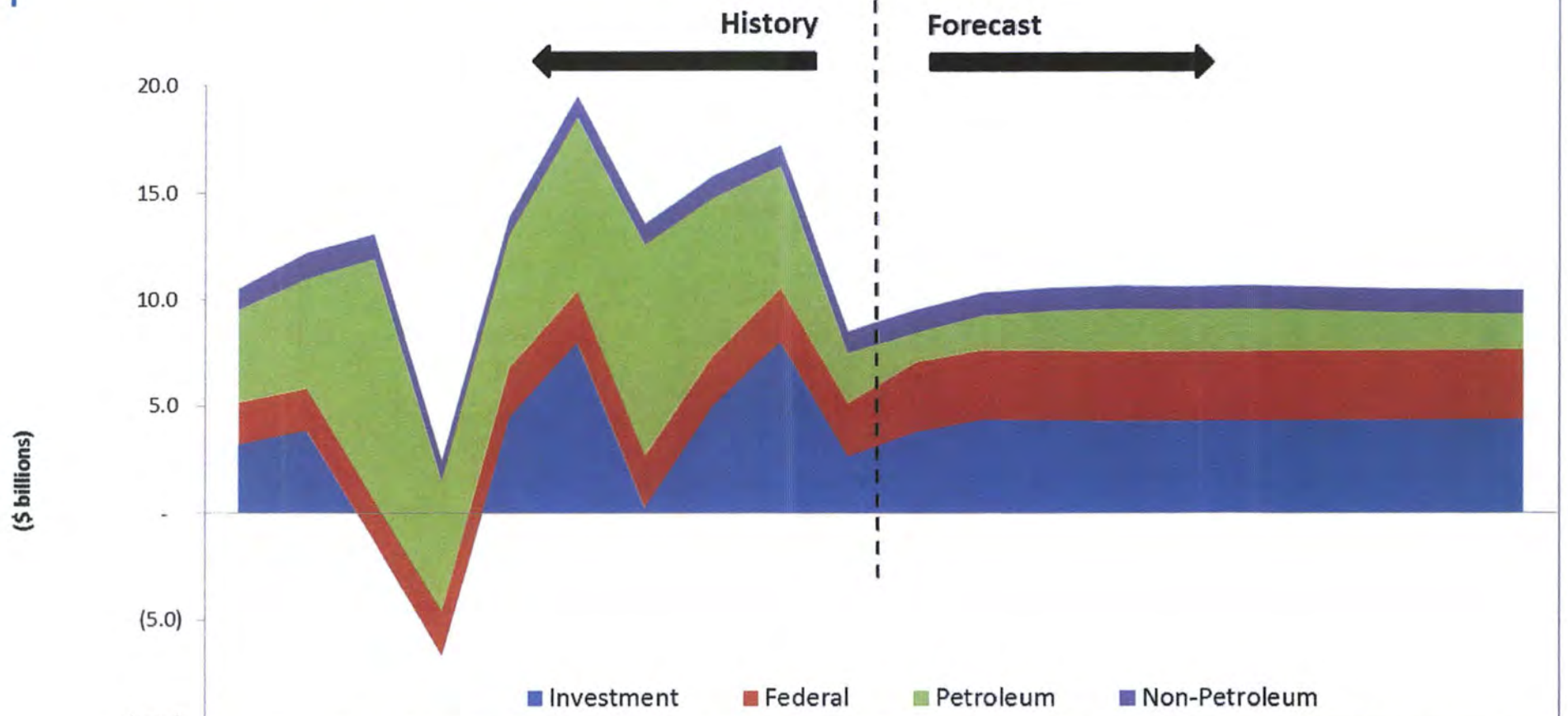
*This graph shows net tax credits versus unrestricted oil revenue, which includes the petroleum property tax, petroleum CIT, production tax, oil and gas hazardous release, oil and gas conservation, rents, and royalties.

Source : Department of Revenue - Revenue Sources Book Fall 2015

Total Revenue Forecast



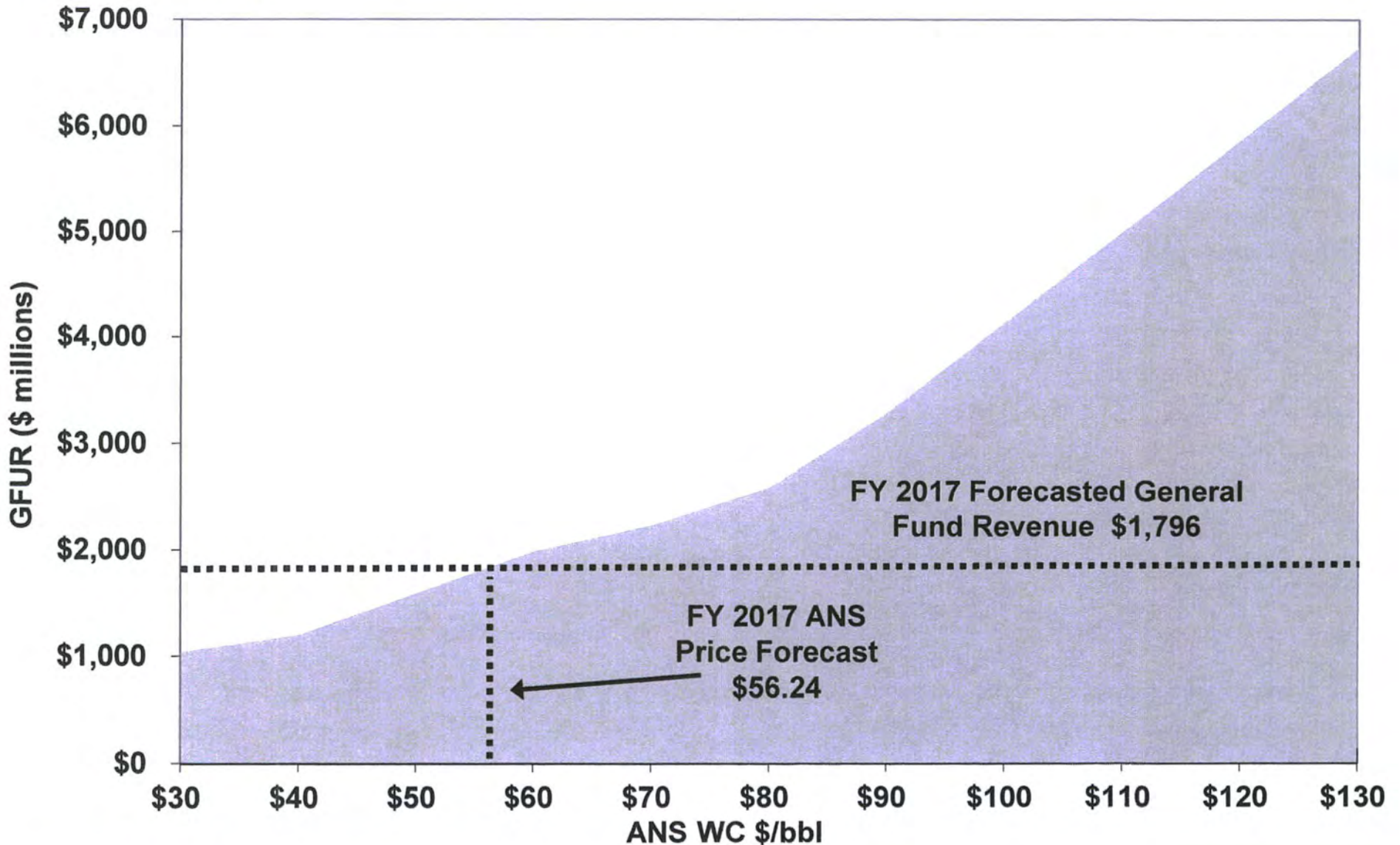
Fall 2015 Total Revenue Forecast



	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



Total Revenue Forecast – FY 2015 & 2016

Revenue Type	(\$ millions)		
	Actual FY 2015	Forecast FY 2016 FY 2017	
Unrestricted General Fund			
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
Total Unrestricted Revenue	2,257.3	1,593.0	1,796.4
Designated General Fund			
Non-Oil Revenue*	313.3	348.2	338.7
Investment Revenue	17.7	6.8	37.8
Subtotal	331.0	355.0	376.5
Other Restricted Revenue			
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
Subtotal	3,436.9	4,300.8	4,881.3
Federal Revenue			
Oil Revenue	3.2	4.3	4.3
Federal Receipts	2,512.7	3,290.2	3,290.2
Subtotal	2,515.9	3,294.5	3,294.5
Total State Revenue	8,541.1	9,543.3	10,348.7

*Except Federal and Investment

Source: Department of Revenue - Revenue Sources Book Fall 2015

A New View of Revenue

Revenue Type	(\$ millions)		
	Actual FY 2015	Forecast FY 2016 FY 2017	
Petroleum Revenue			
Unrestricted General Fund	1,687.9	1,061.5	1,237.3
Royalties to Alaska Permanent Fund beyond 25% dedication ⁽²⁾	111.3	48.4	53.9
Tax and Royalty Settlements to CBRF	149.0	20.0	20.0
Subtotal Petroleum Revenues	1,948.2	1,130.0	1,311.2
Non-Petroleum Revenue			
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 ⁽²⁾	0.2	1.1	1.1
Tax and Royalty Settlements to CBRF	0.1	0.1	0.1
Subtotal Non-Petroleum Revenues	835.1	859.5	860.9
Investment Revenue			
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
Subtotal Investment Revenues	3,194.7	3,448.0	3,575.2
Total Revenue Subject to Appropriation	5,977.9	5,437.5	5,747.3

(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
Taxes						
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	\$65	11.4%	\$65	12.3%	\$75	13.5%
Subtotal Taxes	\$381	66.9%	\$347	65.3%	\$354	63.2%
Investments	\$48	8.4%	\$21	4.0%	\$38	6.8%
Other	\$141	24.7%	\$163	30.7%	\$168	30.0%
Total Non-Oil	\$569	100.0%	\$531	100.0%	\$559	100.0%

Source: Department of Revenue - Revenue Sources Book Fall 2015

THANK YOU

Please find our contact information below:

Randall Hoffbeck
Commissioner
Department of Revenue
Randall.Hoffbeck@alaska.gov
(907) 465-2300

John Tichotsky
Chief Economist
Economic Research Group
John.Tichotsky@alaska.gov
(907) 269-8902



dor.alaska.gov





STATE OF ALASKA
DEPARTMENT OF REVENUE
TAX DIVISION
www.tax.alaska.gov

JOHN TICHOTSKY, Ph.D. (*Cantab.*)
CHIEF ECONOMIST

ECONOMIC RESEARCH GROUP
550 WEST 7TH AVENUE, SUITE 500
ANCHORAGE, ALASKA 99501

TEL: (907) 269-8902
FAX: (907) 269-6644
john.tichotsky@alaska.gov

RatingsDirect®

Summary:

Alaska; Appropriations; General Obligation; Moral Obligation

Primary Credit Analyst:

Gabriel J Petek, CFA, San Francisco (1) 415-371-5042; gabriel.petek@standardandpoors.com

Secondary Contact:

David G Hitchcock, New York (1) 212-438-2022; david.hitchcock@standardandpoors.com

Table Of Contents

Rationale

Outlook

Related Criteria And Research

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
Alaska Energy Auth, Alaska		
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
Alaska Mun Bnd Bank, Alaska		
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
Alaska Mun Bnd Bank GO		
<i>Unenhanced Rating</i>	AA(SPUR)/Negative	Downgraded
Alaska Mun Bnd Bank (Alaska) GO		
<i>Unenhanced Rating</i>	AA(SPUR)/Negative	Downgraded
Matanuska-Susitna Boro, Alaska		
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.		

Complete ratings information is available to subscribers of RatingsDirect at www.globalcreditportal.com. All ratings affected by this rating action can be found on Standard & Poor's public Web site at www.standardandpoors.com. Use

the Ratings search box located in the left column.

Copyright © 2016 Standard & Poor's Financial Services LLC, a part of McGraw Hill Financial. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED, OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses, and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw, or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal, or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription) and www.spcapitaliq.com (subscription) and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.