

# Zen and the Art of a Pipeline Project

Dan E. Dickinson, CPA

April 6, 2010

Northrim Bank's  
Economic Update Luncheon

## Conventional Wisdom:

The state of Alaska needs a fiscal plan to get us through the declining oil production until until we can rely on the riches that will flow from a gas project.

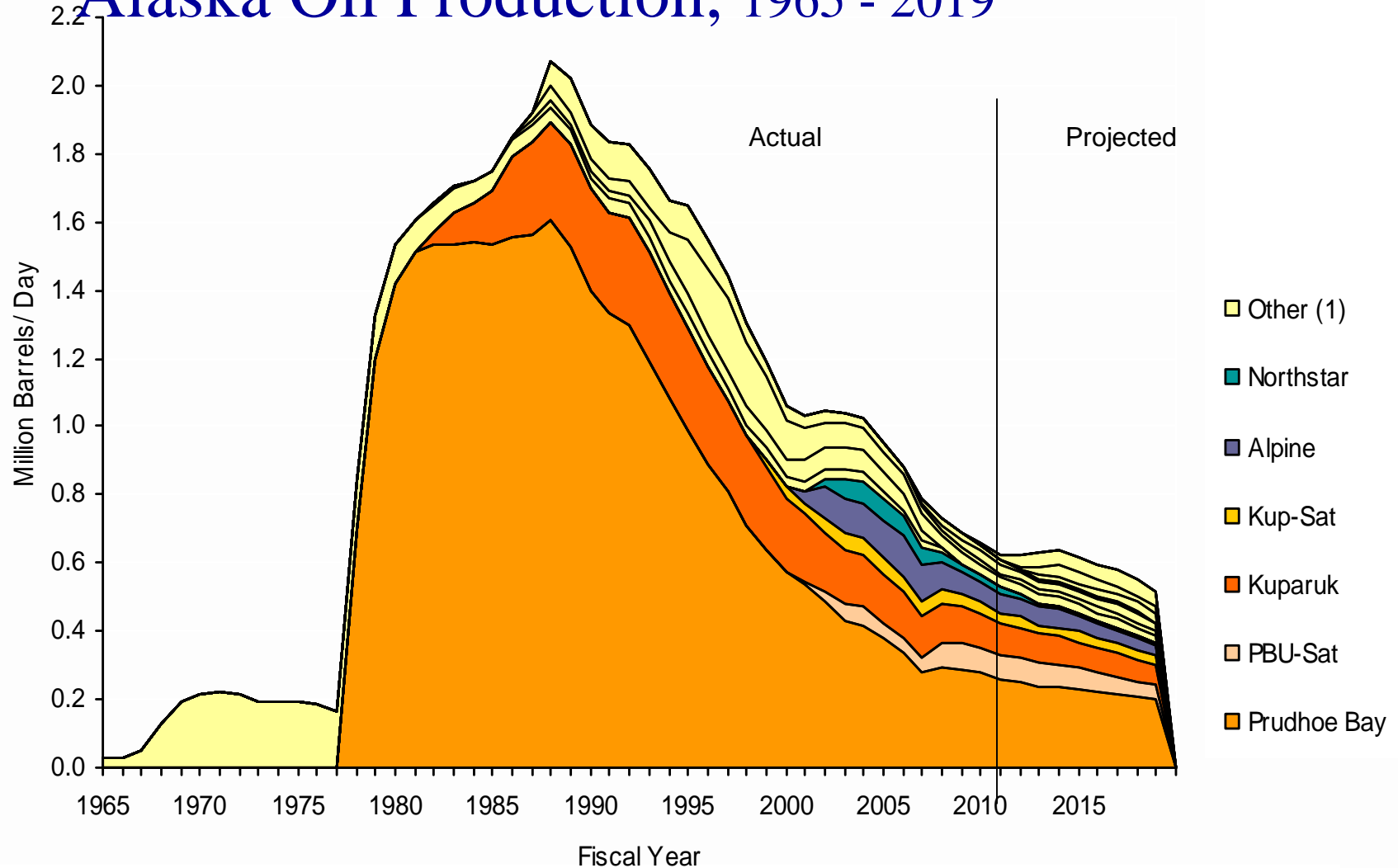
- “The main emphasis of the [fiscal] plan is to facilitate Alaska’s transition from a predominantly oil revenue base to an oil and natural gas revenue base. Construction of a pipeline to monetize Alaska’s natural gas resources is a key element in providing for the future fiscal and economic stability of the state”

- SOA OMB FY2011 10-Year Plan found on OMB’s website

[http://www.gov.state.ak.us/omb/11\\_omb/budget/10-Year-Plan/Exec\\_Summary\\_10-Year-Plan\\_12-14-09.pdf](http://www.gov.state.ak.us/omb/11_omb/budget/10-Year-Plan/Exec_Summary_10-Year-Plan_12-14-09.pdf) accessed April 2, 2010

# Two Things That Are Correct: I

## Alaska Oil Production, 1965 - 2019



Source: Alaska Department of Revenue, Fall 2009 Revenue Sources Book. Extrapolated

(1) Cook Inlet, Duck Island, Milne Point, Greater Point McIntyre, Liberty, Known On & Offshore, Fiord and NPRA.

## Two Things That Are Correct II:

“Predominantly oil  
revenue base...” for  
General Fund revenues

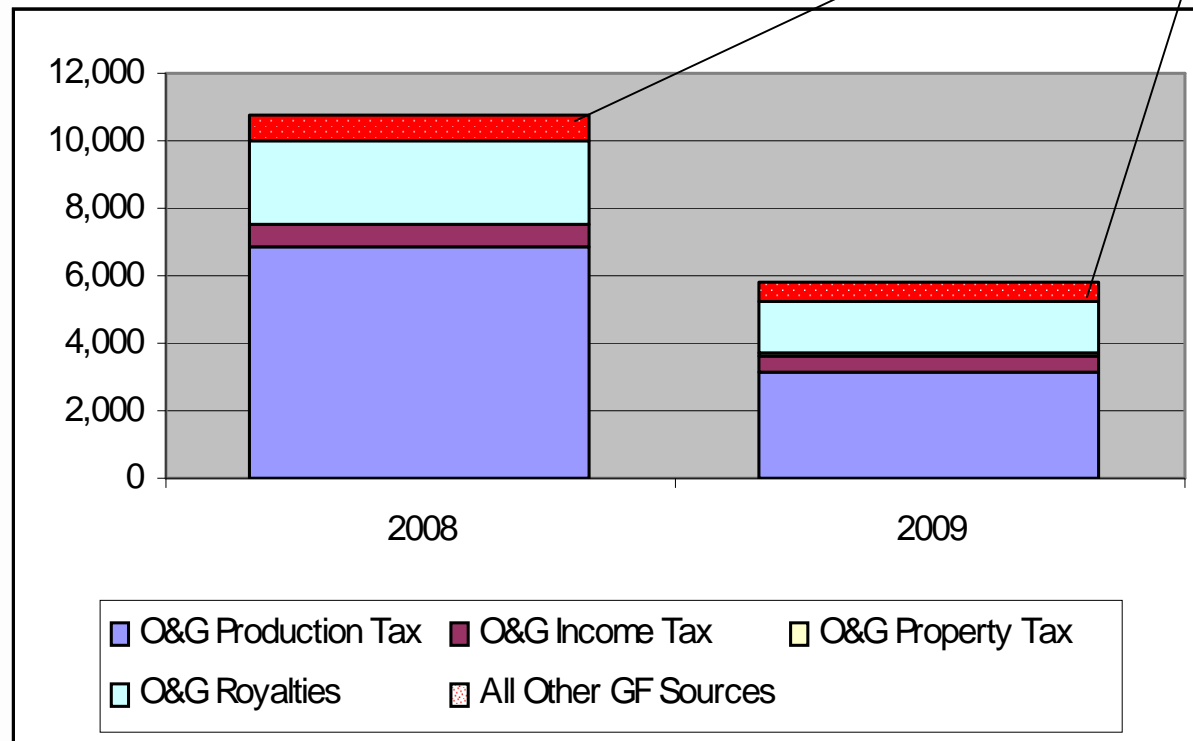
<i>figures in \$000</i>	FY 2008	FY 2009
Average ANS WC Price	96.51	68.34
O&G Production Tax	6,882.6	3,112.0
O&G Income Tax	605.8	492.2
O&G Property Tax	81.5	111.2
O&G Royalties	2,460.7	1,481.2
O&G Subtotal	<hr/> 10,030.6	<hr/> 5,196.6
All Other GF Sources	697.6	634.6
Total GF	<hr/> 10,728.2	<hr/> 5,831.2

SOURCE: SOA DOR [Fall 2009 Revenue Sources Book](#)

## Two Things That Are Correct II:

“Predominantly oil revenue base...” for General Fund revenues

Non oil and gas state revenues



## What I am going to present to you today:

- Instead of a fiscal plan just to get us to a gas pipeline – I believe a viable fiscal plan is necessary
  - 1. In case a there is no major project to monetize gas
  - 2. Even if a gasline occurs
  - 3. A viable fiscal plan that puts our economic house in order – that shows the state will survive financially without a gas project – may help us to secure just such a project.
- How economic is a gasline project?
- What is the state of the state's fiscal house?
- What could a fiscal plan accomplish?

## What I am going to present to you today:

- This presentation “should in no way be associated with ...orthodox Zen Buddhist practice”
  - - Robert M. Pirsig (Zen and the art of Motorcycle Maintenance, Author’s note, 1974)
- Notion: One way to achieve something is by overcoming the need for that thing.
  - note he also added “It’s not very factual on motorcycles either.”

## How Economic is a Gas Pipeline Project?

- Question: What does it take to build a \$41 billion pipeline?



## How Economic is a Gas Pipeline Project?

- Question: What does it take to build a \$41 billion pipeline?
- Answer: \$41 billion

And a CPCN from the FERC.

## How Economic is a Gas Pipeline Project?

- **What is a CPCN?**
- **Certificate of Public Convenience and Necessity**  
A certificate issued by FERC that allows the recipient to engage in the transportation and/or sale for resale of natural gas in interstate commerce or to acquire and operate facilities needed to accomplish this.
- How do you get a (1) CPCN and (2) \$41 billion dollars?
- By demonstrating that there is some demand for this project – by signing up customers to make “firm transportation” (FT) commitments

Source: glossary found on FERC's website <http://www.ferc.gov/help/glossary.asp#C> accessed April 3, 2010

## How Economic is a Gas Pipeline Project?

- FERC distinguishes between the
  - Carrier** – the entity that builds the pipeline based on having signed up shippers (Under the AGIA license – TransCanada)
  - Shippers** – Entities that commit to ship gas in the pipeline.
- Shippers could be
  - Purchasers in the lower 48 – that have deals to buy the gas.
  - Lessees that have the right to produce the gas on the North Slope (and that intend to sell it at the other end of the pipe.)

## How Economic is a Gas Pipeline Project?

- Open season is when the carriers find out if there are shippers willing to sign up for FT.
- FT – is a “take or pay” commitment
- Need FT commitments for financing –
  - Essentially the FT commitment by the shippers makes the loan viable for the carrier
- Need FT commitments for a CPCN (?\*)
  - Demonstrates demand by shippers for the carrier to go ahead and build the line

## How Economic is a Gas Pipeline Project?

- It is a negotiation about how risks -- and rewards -- are shared between shippers and carriers-- the outcome of which will be reflected in the tariff terms.
  - Reserve risk (how much gas will be shipped?)
  - Commodity risk (what can the gas be sold for?)
  - Cost overrun risk (how does the gas price relate to the tariff over the life of the pipe?)
- Risk that does not directly involve the carrier:
  - Government take risk (Who gets how much?)

## Quickie Math

- Quick back-of the-envelope rule of thumb:  
**1 million British Thermal Units (1 mmbtu)**  
is roughly the energy found in  
**1 thousand cubic feet of natural gas (1 mcf)**  
(NS gas closer to 1118 btu/cf)
- 1 billion cubic feet (bcf) is one million mcf.
- SI units: **1 gigajoule** is roughly 1 mmbtu  
(actual is 1 gigajoule = 947,817.12 btus)

## How Economic is a Gas Pipeline Project?

- Using current estimates of tariff and Henry Hub price: no gas line gets built

2009 Market Price of Gas (\$mmbtu)	\$	3.95
Tariff AK to AB (inc GTP)		(3.54)
AB Hub		(0.24)
Tariff AB to L48		(0.85)
Gross Value	\$	<b>(0.68)</b>
4.5 bcf day		1,642.5
One year loss (\$millions)		(1,116.9)

(AB – Alberta; GTP is a Gas Treatment Plant)

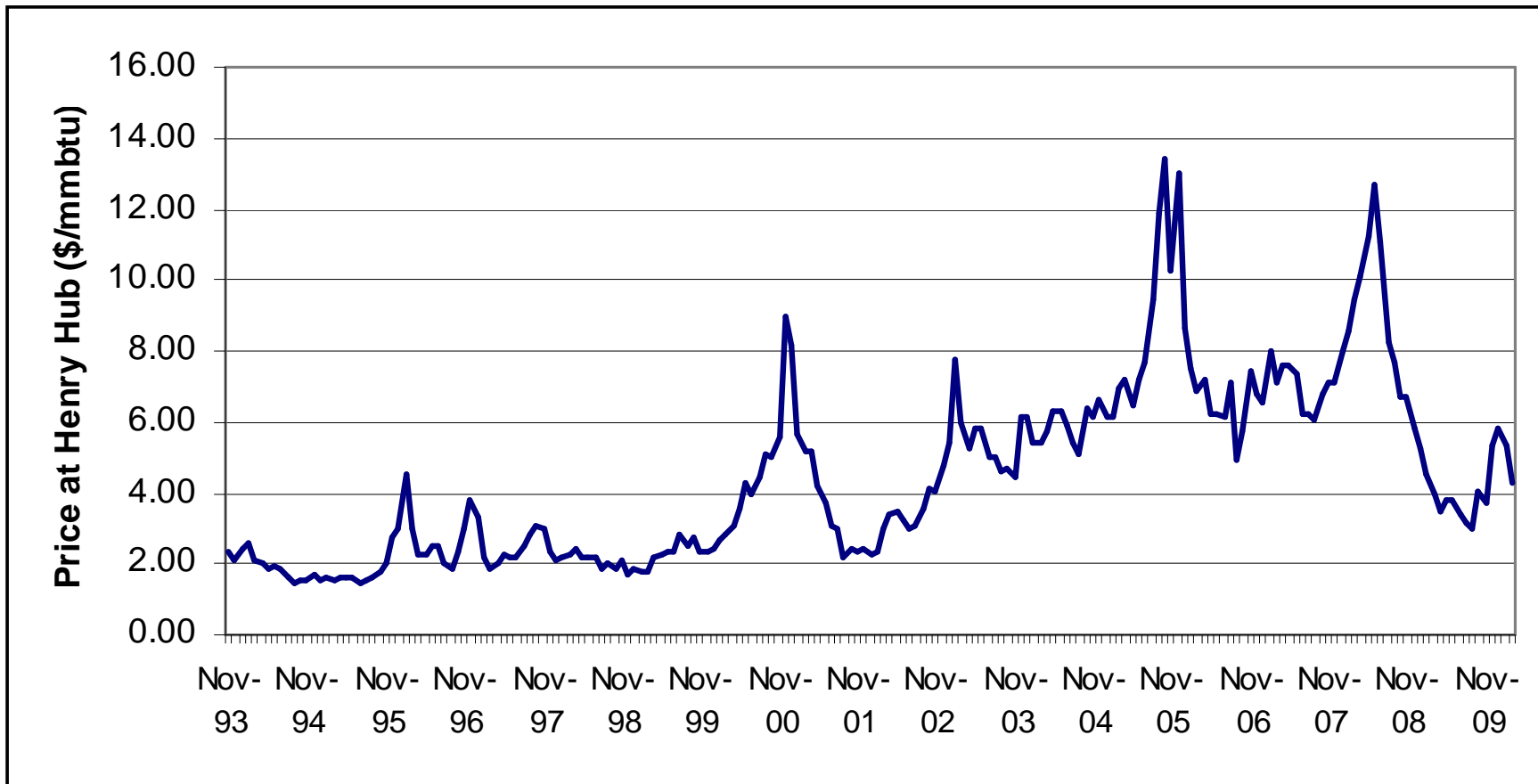
## How Economic is a Gas Pipeline Project?

- Double the gas price, all else stays the same:

2009 Market Price of Gas x 2	<b>\$ 7.90</b>
Tariff AK to AB (inc GTP)	(3.54)
AB Hub	(0.24)
Tariff AB to L48	(0.85)
Gross Value	<u>\$ 3.27</u>
4.5 bcf day	1,642.5
One year gain (\$millions)	<u>5,371.0</u>
State Take (50%):	2,685.5
Producer Take (50%) (before FIT)	2,685.5



# How Economic is a Gas Pipeline Project?



Source: Federal Reserve Bank of St. Louis,

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Dickinson CPA

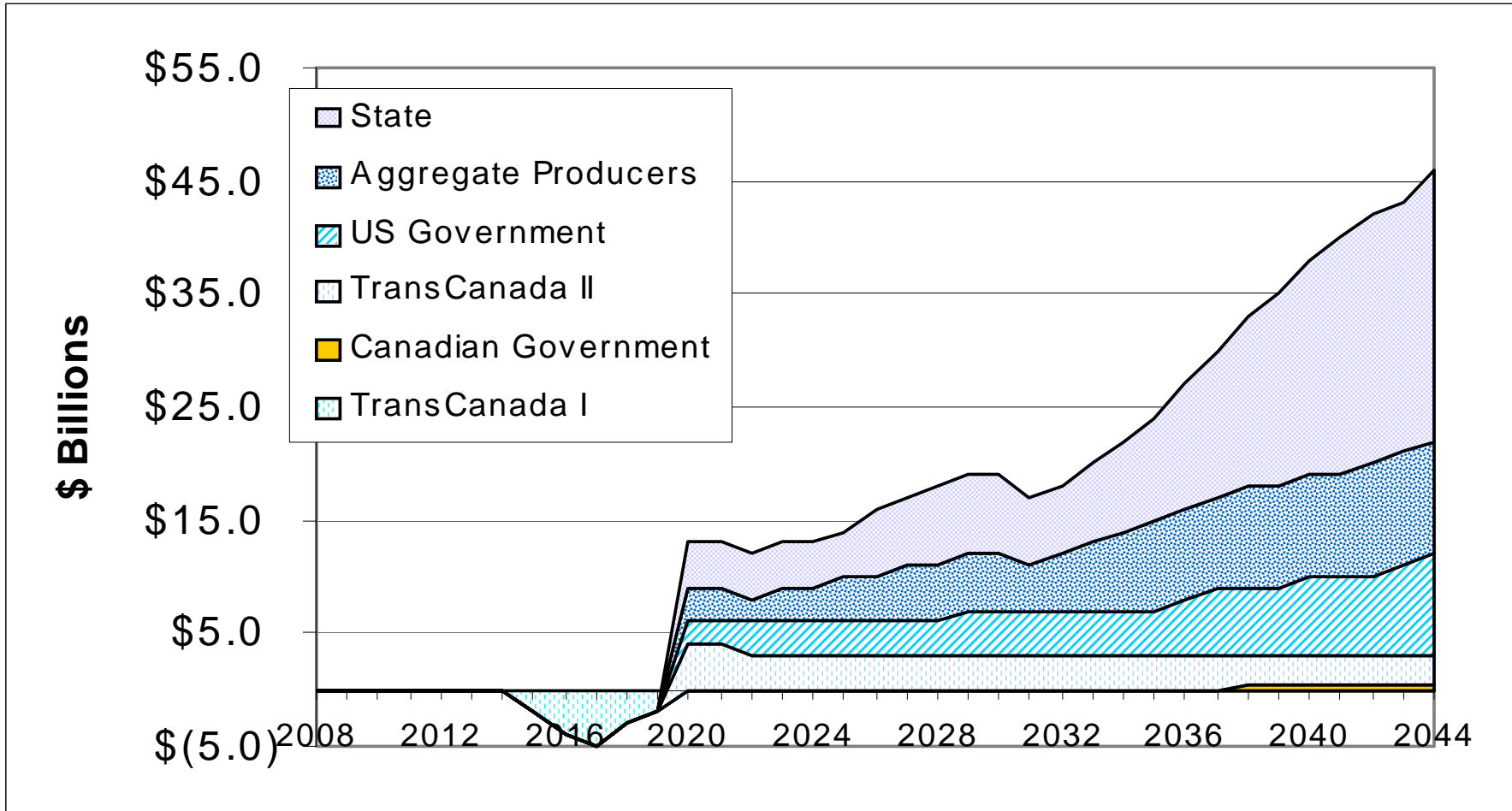
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# How Economic is a Gas Pipeline Project?

- Estimated Net Cash Flows from the AGIA Licensed Project (2020 – 2044) for Administration’s “Findings”



Source: Black & Veatch, AGIA NPV Analysis Report, (May 3 2008) (page 122)

## How Economic is a Gas Pipeline Project?

- Estimated Net Cash Flows from the AGIA Licensed Project (2020 – 2044) for Administration’s “Findings”

*all figures in \$billions*

	Undiscounted Cash	Discount Rate	Discounted Cash
State of Alaska	257.00	5.0%	66.1
Federal Government	114.00	5.0%	30.5
TransCanada	57.50	8.8%	4.5
Producers	154.00	10.0%	13.5
<b>Total</b>	<b>582.50</b>		

Source: Black & Veatch, AGIA NPV Analysis Report, (May 3 2008) (page 123,193,173,160,175)

## How Economic is a Gas Pipeline Project?

- What will a major gas project mean for the state;
- DOR Fall 2001 Revenue Sources Book:
- “A 4 billion cubic feet per day Alaska Highway gasline would be expensive costing an estimated 14.3 billion to deliver the gas to Chicago. A gas treatment plant, estimated at \$2.6 billion also would be needed to remove impurities.”
- “...An Alaska Highway gasline project under the state’s existing fiscal system could yield as much as \$400 million a year to the state’s General Fund by Fiscal year 2010.”
- “And what if the gas brings in \$4 per thousand cubic feet on the market, instead of \$3.50 as projected in most models? With such favorable economics, the state could receive as much as \$700 million in tax and royalty revenue in Fiscal 2010.”

## How Economic is a Gas Pipeline Project?

- What if cost overruns double the tariff?

2009 Market Price of Gas x 2	\$ 7.90
Tariff AK to AB (inc GTP) x 2	(7.08)
AB Hub	(0.24)
Tariff AB to L48	(0.85)
Gross Value	<u>\$ (0.27)</u>
4.5 bcf day	1,642.5
One year loss (\$millions)	<u>(443.5)</u>

## How Economic is a Gas Pipeline Project?

- What if state “needs” 5 billion to balance budget?

2009 Market Price of Gas x 2	\$ 7.90
Tariff AK to AB (inc GTP)	(3.54)
AB Hub	(0.24)
Tariff AB to L48	(0.85)
Gross Value	<u>\$ 3.27</u>
4.5 bcf day	1,642.5
One year gain (\$millions)	<u>5,371.0</u>
<b>State Take (75%):</b>	4,028.2
Producer Take (25%) (before FIT)	1,342.7

## How Economic is a Gas Pipeline Project?

- The variable that the State can control is State take.
- Case flows to the State are the largest single element of the project. Can an investor estimate those reliably while evaluating the investment?
- Stranded Gas Development Act Contract (2006) was an unsuccessful attempt to nail down an iron clad contract
- Alaska Gasline Inducement Act offers 10 years of fiscal stability on gas production taxes in title 43 chapter 55, but no stability on oil and gas income taxes, oil and gas property taxes, or any other tax outside of title 43, chapter 55 -- unless the legislature decides to change it.

## How Economic is a Gas Pipeline Project?

- (1) It may not happen if investors are scared that the commodity price won't cover the tariff.
- (2) Even if a project is built there is a great risk that cash flows may be minimal.
- (3) Conversations between the State and the producers will be a lot more productive if we can demonstrate that
  - State is not desperate for gasline money
  - Can back up promises of fiscal stability

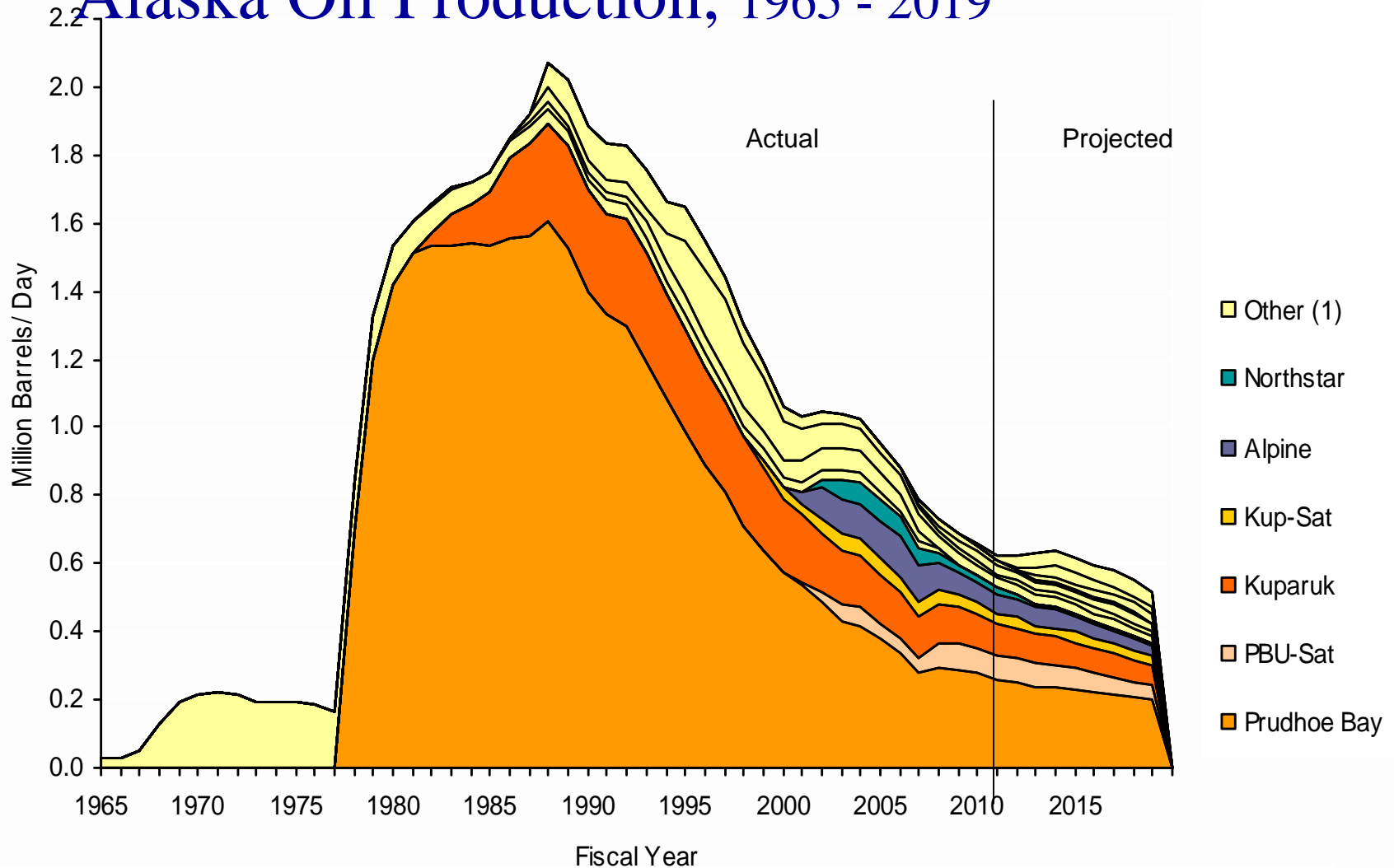


## How Economic is a Gas Pipeline Project?

- Is a fiscal stability promise/contract enough?
- “...even in circumstances where fiscal stability is offered by contractual clause...or by legislation...it is possible for such clauses to be circumvented by governments willing to exploit increased power provided to them by changing market conditions.” – Dr. David Wood (Preliminary Report on Fiscal Designs for the Development of Alaska Natural Gas (November 2008) page 118)
- Can we make fiscal stability viable by showing that the state doesn't need a major gas project to survive fiscally?

# What is the State of the State's Fiscal House?

## Alaska Oil Production, 1965 - 2019

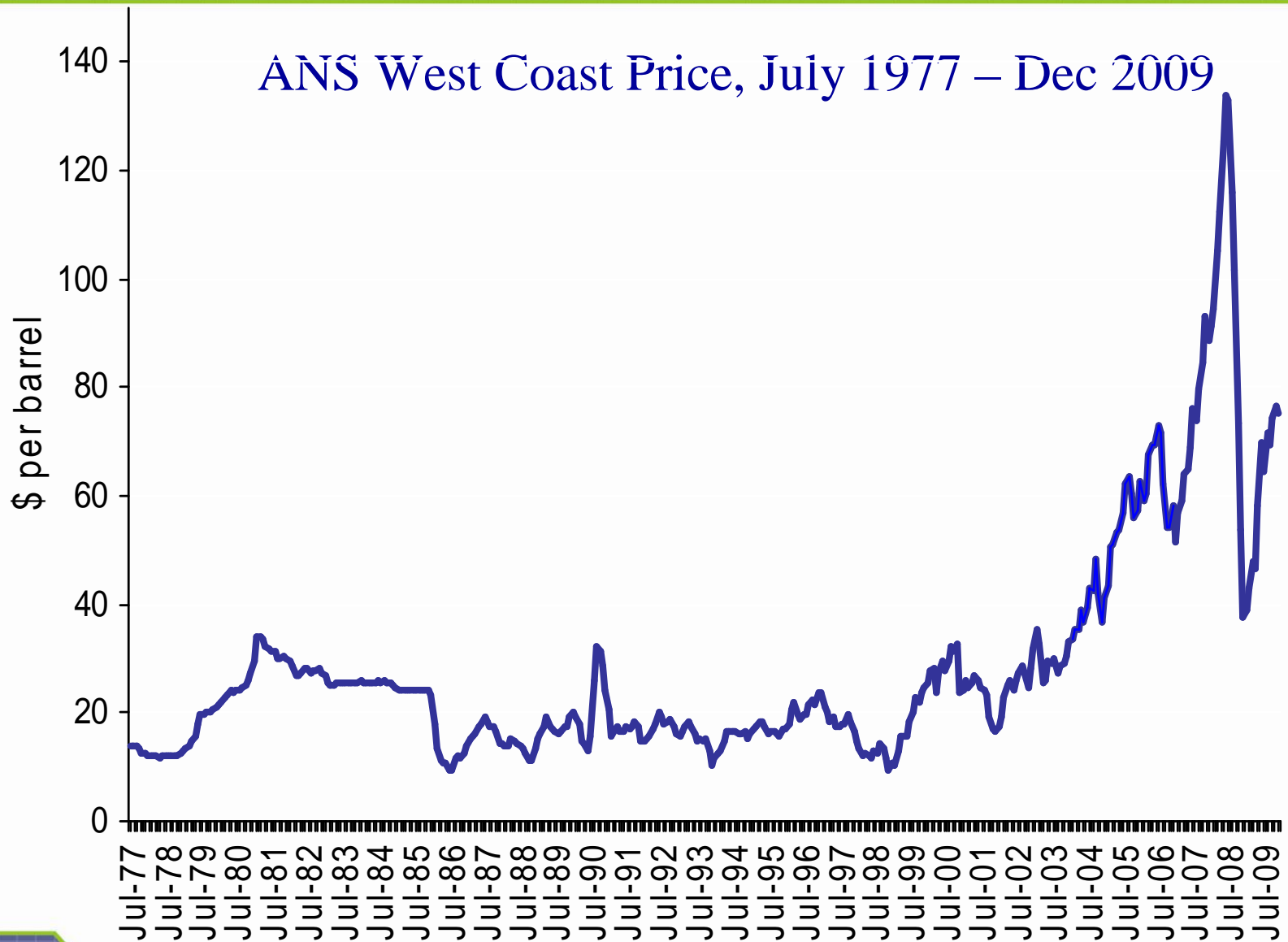


Source: Alaska Department of Revenue, Fall 2009 Revenue Sources Book. Extrapolated  
(1) Cook Inlet, Duck Island, Milne Point, Greater Point McIntyre, Liberty, Known On & Offshore, Fiord and NPRA.

## What is the State of the State's Fiscal House?

- 1988 -
  - 2 million bbls a day produced in AK
  - Times 365 days
  - Times \$13.50 a barrel market value
  - Equals 10 billion dollars in value at Destination
  - (State take – \$2.3 billion)

# What is the State of the State's Fiscal House?



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Dickinson CPA

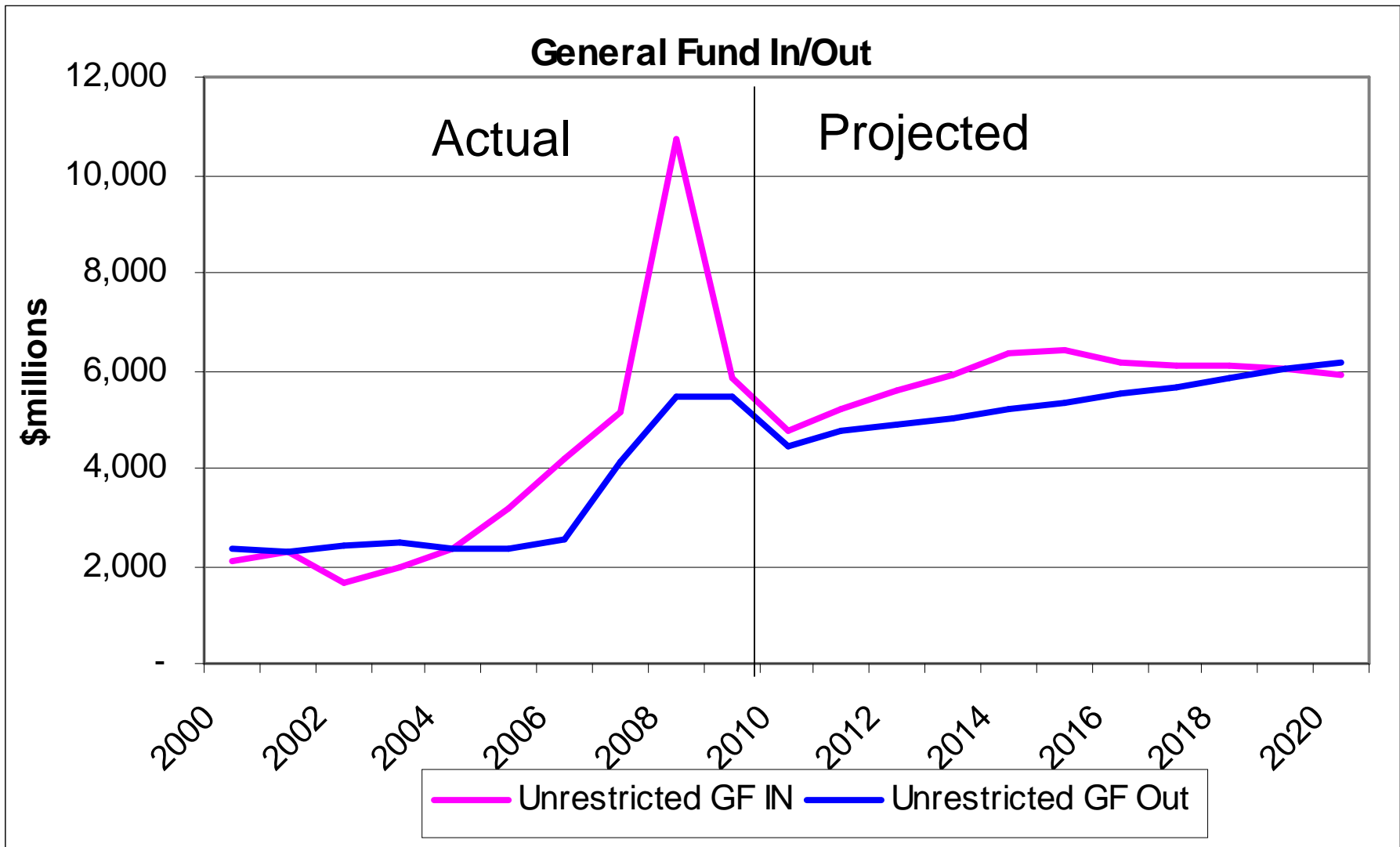
Source: Alaska Department of Revenue, Tax Division

## What is the State of the State's Fiscal House?

- 1988 -
  - 2 million bbls a day produced in AK
  - Times 365 days
  - Times \$13.50 a bbl market value
  - Equals \$10 billion in value at Destination
  
- 2008 -
  - .730 million bbls a day produced in AK
  - Times 365 days
  - Times \$100 a bbl market value
  - Equals \$25 billion in value at Destination
  - (State Take: \$11.3 billion)

Source: SOA DOR Fall 2009 Revenue Sources Book, Fall 2000 Revenue Sources Book, and DOR price series

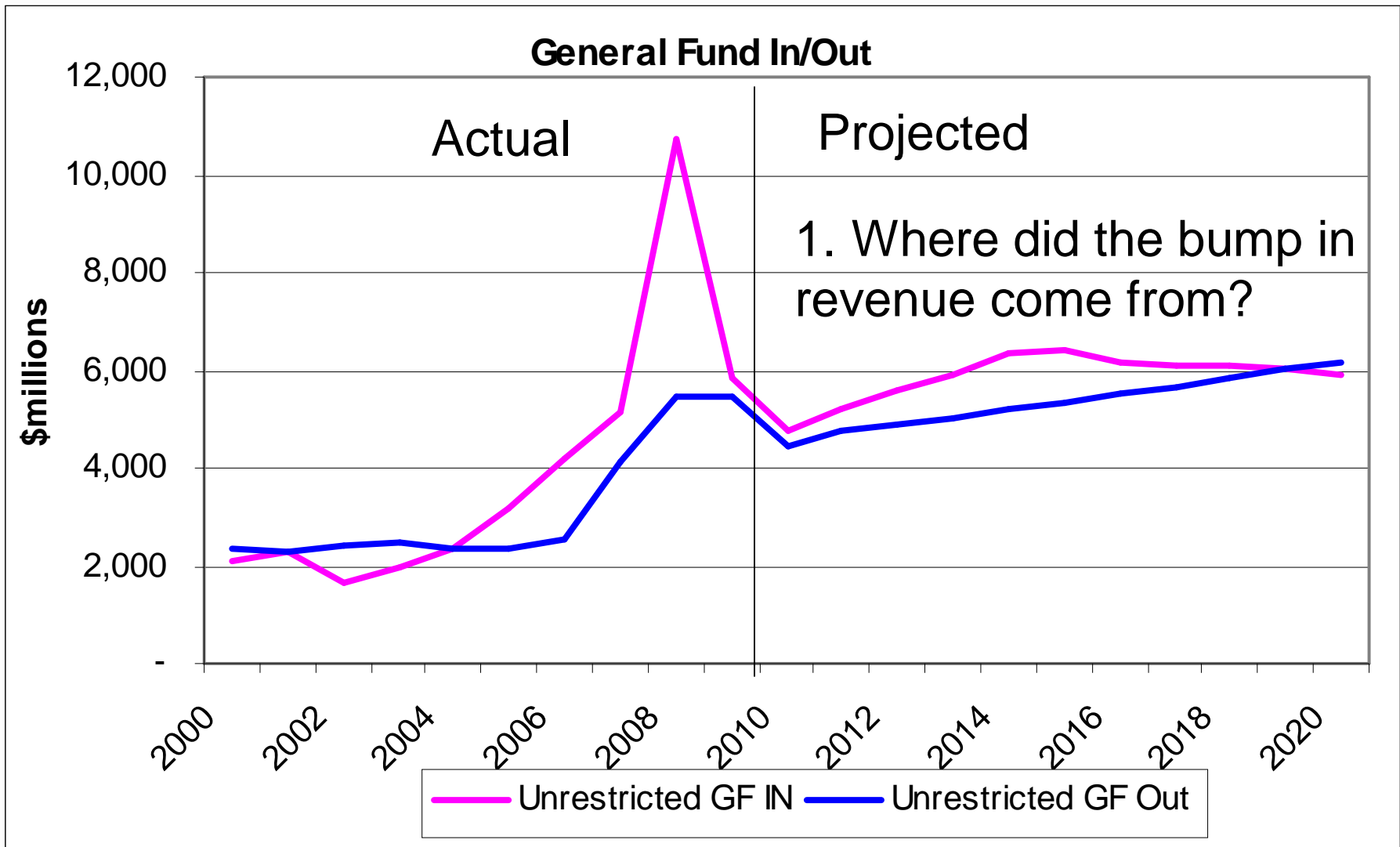
# What is the State of the State's Fiscal House ?



Source: SOA DOR Fall 2009 Revenue Sources Book; OMB, 2010 Long Range Fiscal Plan

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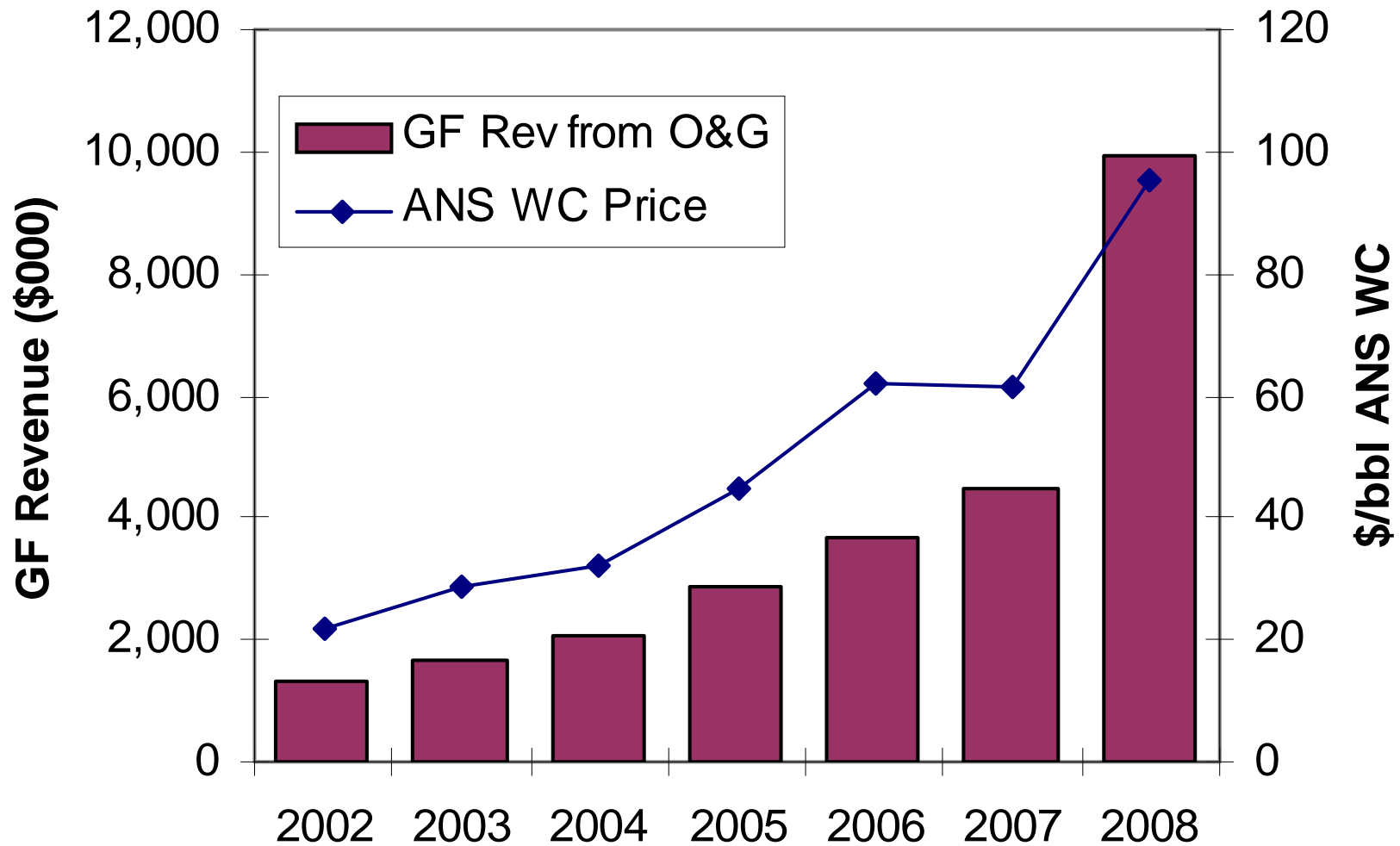
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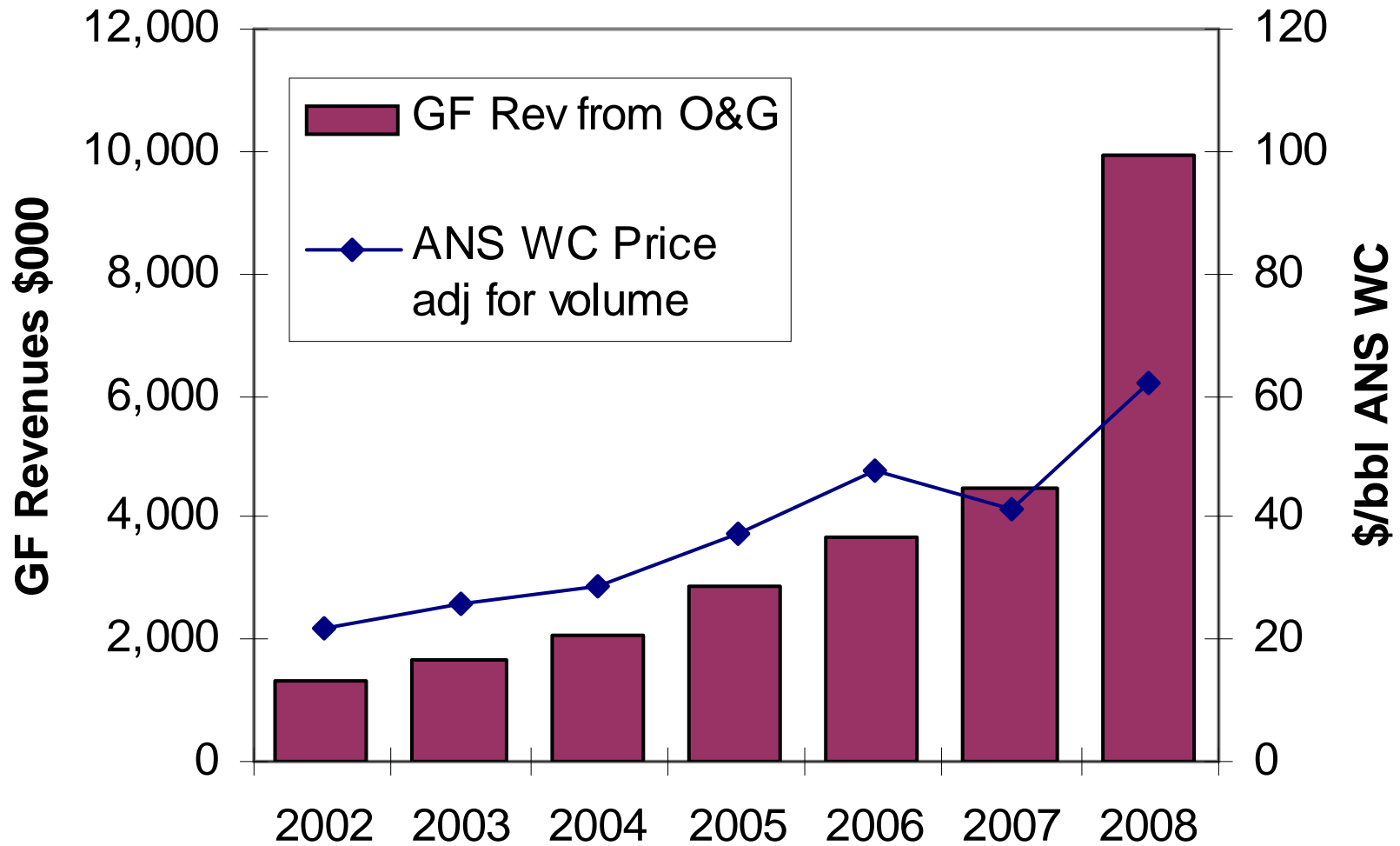
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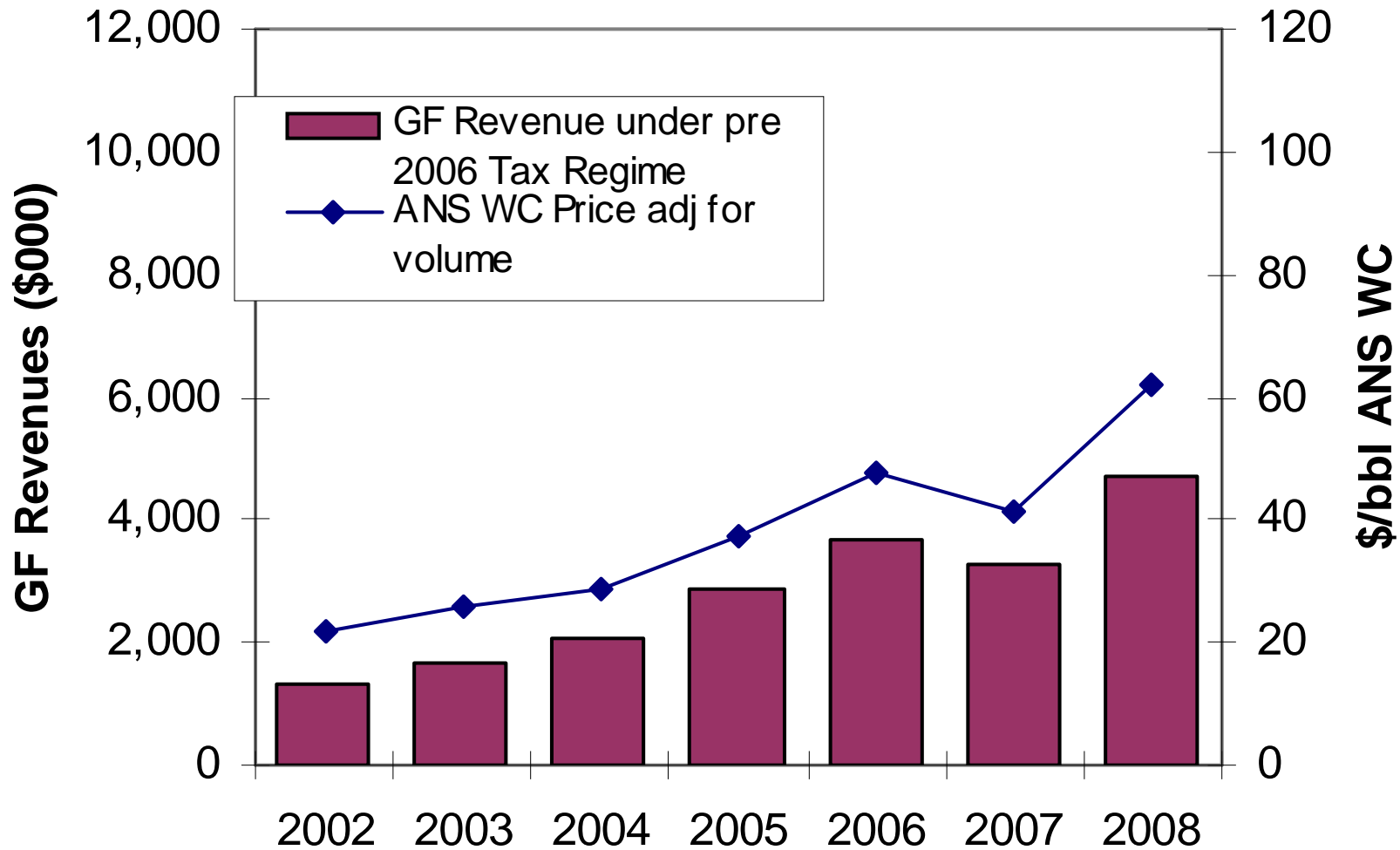
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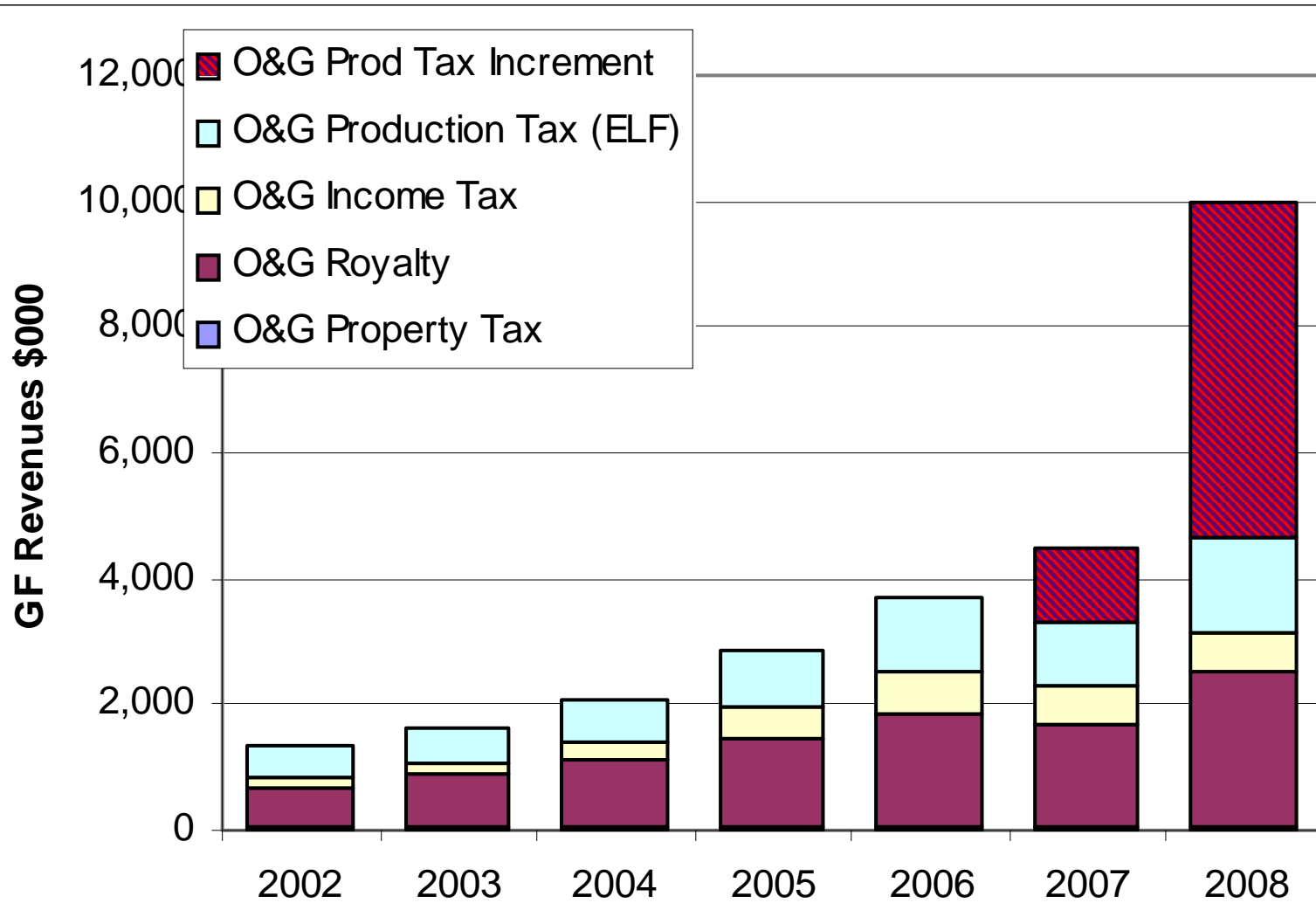
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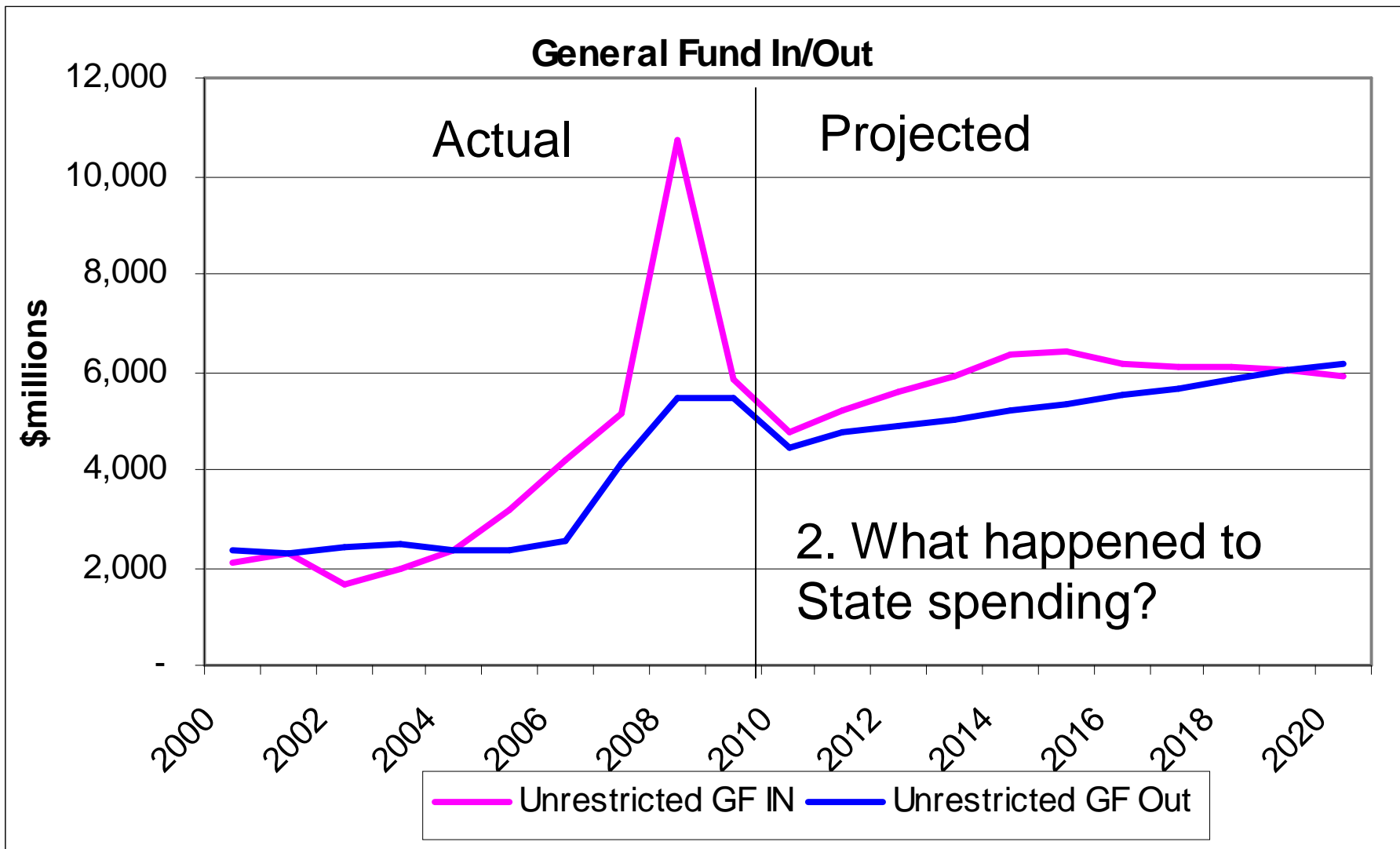
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Source: SOA DOR Fall 2009 Revenue Sources Book

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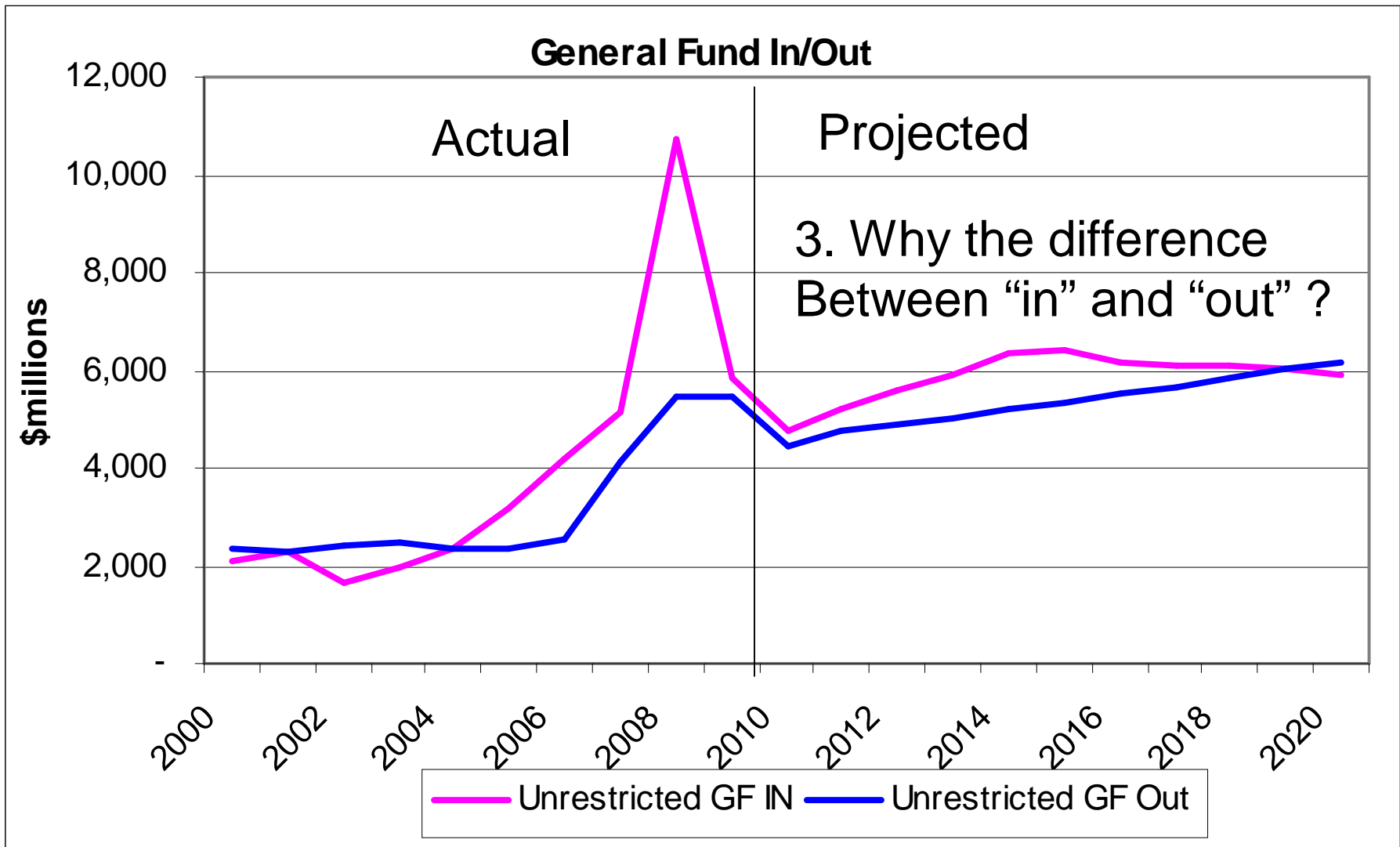
# What is the State of the State's Fiscal House?

	FY 2006	FY 2010	% change
<b>Operating Budget:</b>			
Agency Operations	1,298.2	1,833.6	141%
K-12 Formulas	845.7	1,060.7	190%
Other Formula Prog		544.1	
Debt Service	52.0	140.9	271%
Fund Capitalization	18.2	24.1	132%
Retirement		284.7	
Rvn Shrng & Lcl Gov Spprt		60.0	
Oil & Gas Investment Credits		180.0	
Resource Rebate		5.4	
New Legislation	11.4	-	
<b>Capital Budget:</b>			
Capital	338.7	173.1	51%
<b>Total</b>	<b>2,564.2</b>	<b>4,306.6</b>	<b>168%</b>
Estimated Anticipated Supplemental*		108.6	
		<b>4,415.2</b>	

\*or reconciliation between OMB & Leg find docs)

2006 Inflated at 3% for 4 years	2564.2	2886.03	113%
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# What is the State of the State's Fiscal House ?

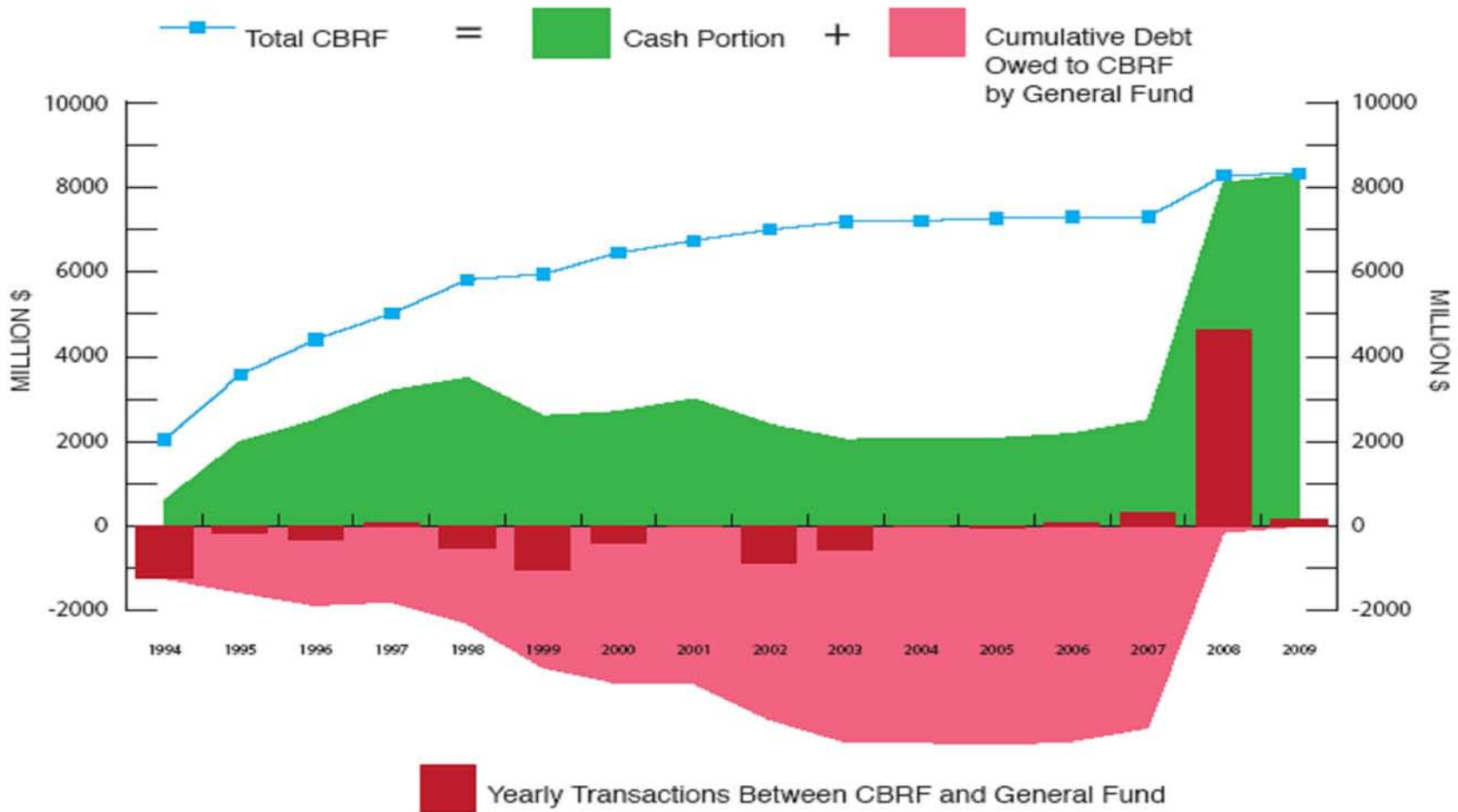


Source: SOA DOR Fall 2009 Revenue Sources Book; OMB, 2010 Long Range Fiscal Plan

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Dickinson CPA

# What is the State of the State's Fiscal House?

## Constitutional Budget Reserve Fund: Composition



Dan E. Dickinson CPA

Source: SOA FY 2009 Comprehensive Annual Financial Report and DOR Fall 2009 Revenue Sources Book

## What Could a Fiscal Plan Accomplish?

- (1) Do we have the fiscal tools to survive without a gasline?
- (2) Do we have the fiscal tools to survive with minimal cash flows in from a gas pipeline project?
- (3) Do we have the fiscal tools so that in a negotiation about fiscal stability
  - We can walk away from a negotiation?
  - We can accept reasonable limits on state take that may match our limited risk?
- Assets
- Broad Based Taxes



# What Could a Fiscal Plan Accomplish?

- Cash & Investments on hand at the end of last year

CAFR Sched	<i>all figures in \$000</i>	Cash And Investments as of June 30 2009
1.11	Governmental Funds	
	General Fund (inc CBRF)	\$ 13,074,533
	Permanent Fund	31,647,812
	Other non-Major Gov Funds	1,143,250
		<hr/>
		\$ 45,865,595
1.41	Separate Component Funds	
	AHFC	597,912
	AEA	\$ 490,479
	AMHTA	402,740
	AIDEA	349,593
	Other Comp Funds (inc UAA)	260,246
		<hr/>
		\$ 2,100,970
1.21	Proprietary Enterprise & Internal Service Funds	
		\$ 775,037

## What Could a Fiscal Plan Accomplish?

- Collections sourced to Alaska in federal fiscal year 2009 by IRS

<i>all figures in \$000</i>	2009 Collections	
Business Income Taxes	\$	222,515
Individual; Withheld & FICA		3,350,707
Individual; Not Withheld & SECA		984,895
Other		112,039
Total	\$	4,670,156

Source: IRS, Internal Revenue Service Data Book, 2009 SOI Table 5

## What Could a Fiscal Plan Accomplish?

- Business in +billion \$ sectors sourced to Alaska in 2007

NAICS	<i>all figures in \$000</i>	Sales, Shipments, Receipts, Revenues of Business Done
21	Mining quarrying and oil and gas extraction	\$ 21,748,761
23	Construction	6,184,649
42	Wholesale trade	7,354,708
44-45	Retail Trade	9,303,387
54	Professional, scientific and technical services	2,041,933
56	Administrative, support, waste management and remediation services	2,095,976
62	Health Care and Social Services	4,662,632
72	Accommodation & Food Services	1,851,293
	Sum of Selected Sectors	\$ 55,243,339

# What Could a Fiscal Plan Accomplish?

- According to the FTA Alaska has the **highest** per capita State Tax burden in the country:

- **2008 State Tax Revenue**

revised June 25, 2009

	Total Taxes (\$ million)	Per Capita	Rank	% of Pers. Income	Rank
Alabama	9,071	1,946	42	6.0	39
<b>Alaska</b>	<b>8,425</b>	<b>12,276</b>	<b>1</b>	<b>30.9</b>	<b>1</b>
Arizona	13,706	2,109	39	6.6	34
Arkansas	7,531	2,637	19	8.8	7
California	117,362	3,193	12	7.7	14
Colorado	9,625	1,949	41	4.8	48
Connecticut	13,368	3,818	5	7.0	26
Delaware	2,931	3,357	10	8.5	10
Florida	35,850	1,956	40	5.1	46

Source: From Federation of Tax Administrators' website taxadmin.org, (accessed March 18 2010)

## What Could a Fiscal Plan Accomplish?

- According to the US Census AK ranks between “Taxachusetts” and New Jersey in per capita state taxes:

Rank	State	Amount
	United States.....	2,199.11
1	Vermont.....	3,600.16
2	Hawaii.....	3,477.93
3	Wyoming.....	3,417.77
4	Connecticut.....	3,300.49
5	Minnesota.....	3,093.93
6	Delaware.....	3,068.98
7	Massachusetts.....	2,818.39
<b>8</b>	<b>Alaska.....</b>	<b>2,798.66</b>
9	New Jersey.....	2,781.33
10	California.....	2,724.31

# What Could a Fiscal Plan Accomplish?

- According to the Tax Foundation Alaska has the **lowest** per capita Tax State Tax burden in the country:

Table 1

State and Local Tax Burden by Rank  
Fiscal Year 2008

State	State-Local Tax Burden	Rank
US average	9.7%	—
New Jersey	11.8%	1
New York	11.7	2
Connecticut	11.1	3
Maryland	10.8	4
Hawaii	10.6	5
California	10.5%	6
Ohio	10.4	7
Vermont	10.3	8
Wisconsin	10.2	9
Rhode Island	10.2	10
Pennsylvania	10.2%	11
Minnesota	10.2	12
Idaho	10.1	13
Arkansas	10.0	14
Maine	10.0	15
Georgia	9.9%	16
Nebraska	9.8	17
Virginia	9.8	18
Oklahoma	9.8	19
North Carolina	9.8	20
Kansas	9.8%	21
Utah	9.6	22
Massachusetts	9.5	23
Delaware	9.5	24
Kentucky	9.4	25

Oregon	9.4%	26
Michigan	9.4	27
Indiana	9.4	28
West Virginia	9.3	29
Illinois	9.3	30
Iowa	9.3%	31
Missouri	9.2	32
North Dakota	9.2	33
Colorado	9.0	34
Washington	8.9	35
Mississippi	8.8%	36
South Carolina	8.8	37
Alabama	8.8	38
New Mexico	8.8	39
Montana	8.8	40
Arizona	8.5%	41
Louisiana	8.4	42
Texas	8.4	43
Tennessee	8.3	44
South Dakota	7.9	45
New Hampshire	7.8%	46
Florida	7.4	47
Wyoming	7.0	48
Nevada	6.8	49
Dist. of Columbia	10.3%	(8)

Source: Prante, Gerald Tax Foundation Special Report No. 163 (Aug 2008) page 2

# What Could a Fiscal Plan Accomplish?

*Table 6*

*State and Local Tax Collections Per Capita  
Fiscal Year 2008*

State	Total State and Local Tax Collections (per capita)	Rank	Taxes Collected from Residents (per capita)	Rank	Taxes Collected from Non-residents (per capita)	Rank
US average	\$ 4,294	—	\$ 2,924	—	\$ 1,370	—
Alabama	\$ 2,949	50	\$ 1,977	42	\$ 972	48
Alaska	7,864	1	1,433	50	6,431	1
Arizona	3,286	43	2,170	35	1,116	36
Arkansas	3,284	44	2,315	29	969	49
California	4,752	10	3,683	6	1,069	39

Source: Prante, Gerald Tax Foundation Special Report No. 163 (Aug 2008) page 9

## What Could a Fiscal Plan Accomplish II?

- House Joint Resolution 6 Constitutional Amendment: Gas Revenue Endowment Fund
- sponsored by Rep. Mike Hawker
- Proposing amendments to the Constitution of the State of Alaska creating and relating to the gas revenue endowment fund, relating to the fund, limiting appropriations from the fund based on an average percent of the market value, relating to the deposits to the permanent fund, and relating to deposits to the budget reserve fund”

- Sponsor Statement

House Joint Resolution 6 answers the Alaskan Prayer:  
“Lord, please grant me another Prudhoe Bay; I promise not to fritter this one away.”



## Take Away

- We, as a state, have made a good start to putting out fiscal house in order. We need to finish that by designing and implementing a fiscal plan that
- (1) will cover the State's needs if there is no gas line project.
- (2) will cover the State's needs if a gasline project is built, but isn't a cash cow.
- (3) Even enables that project by allowing the State to negotiate rational, not desperate, terms for investment in a major gas project

# Thank You

Dan E. Dickinson CPA

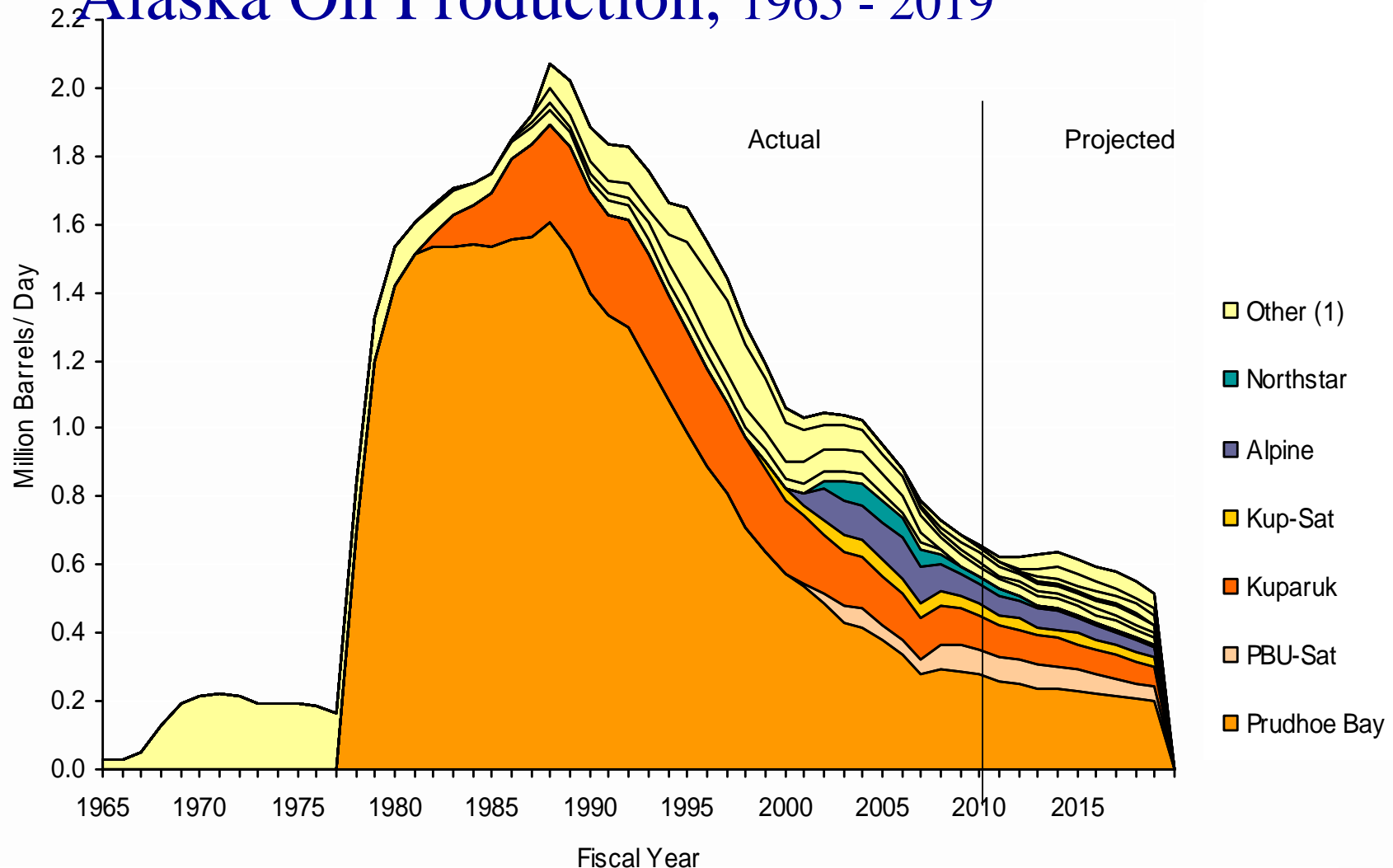
Anchorage, AK

[ddickinsoncpa@gci.net](mailto:ddickinsoncpa@gci.net)

907 301 5615

<http://www.dedcpa.com/>

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