

New Ideas: Making The World A Better Place

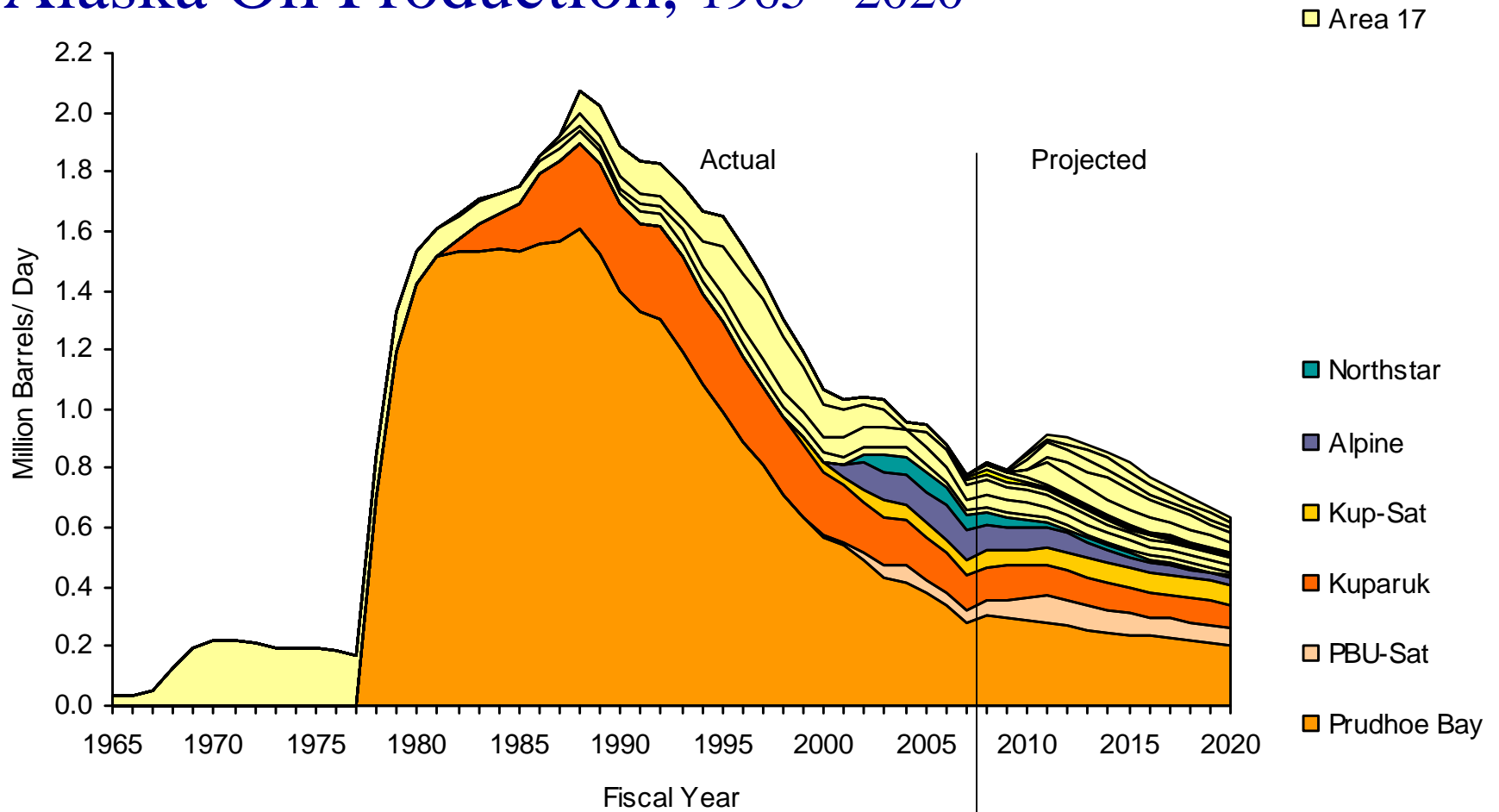
Dan E. Dickinson, CPA CMA
January 31, 2007

- Problem: Production which drives State revenues is falling.

Since production is driven by investment

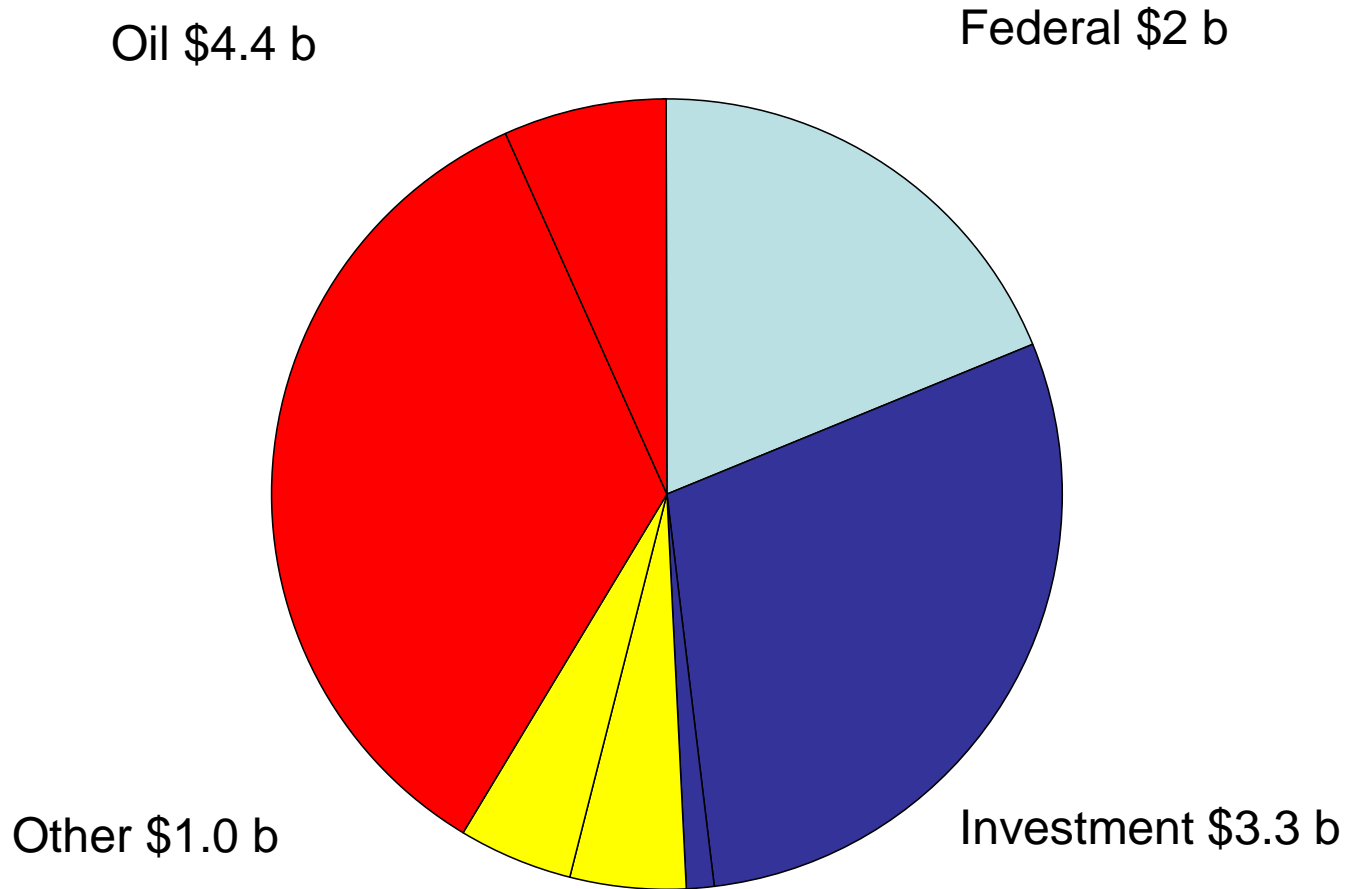
- Solution: Use the tax system to encourage more investment.
- Constraint: without destroying current State revenues.

Alaska Oil Production, 1965 - 2020



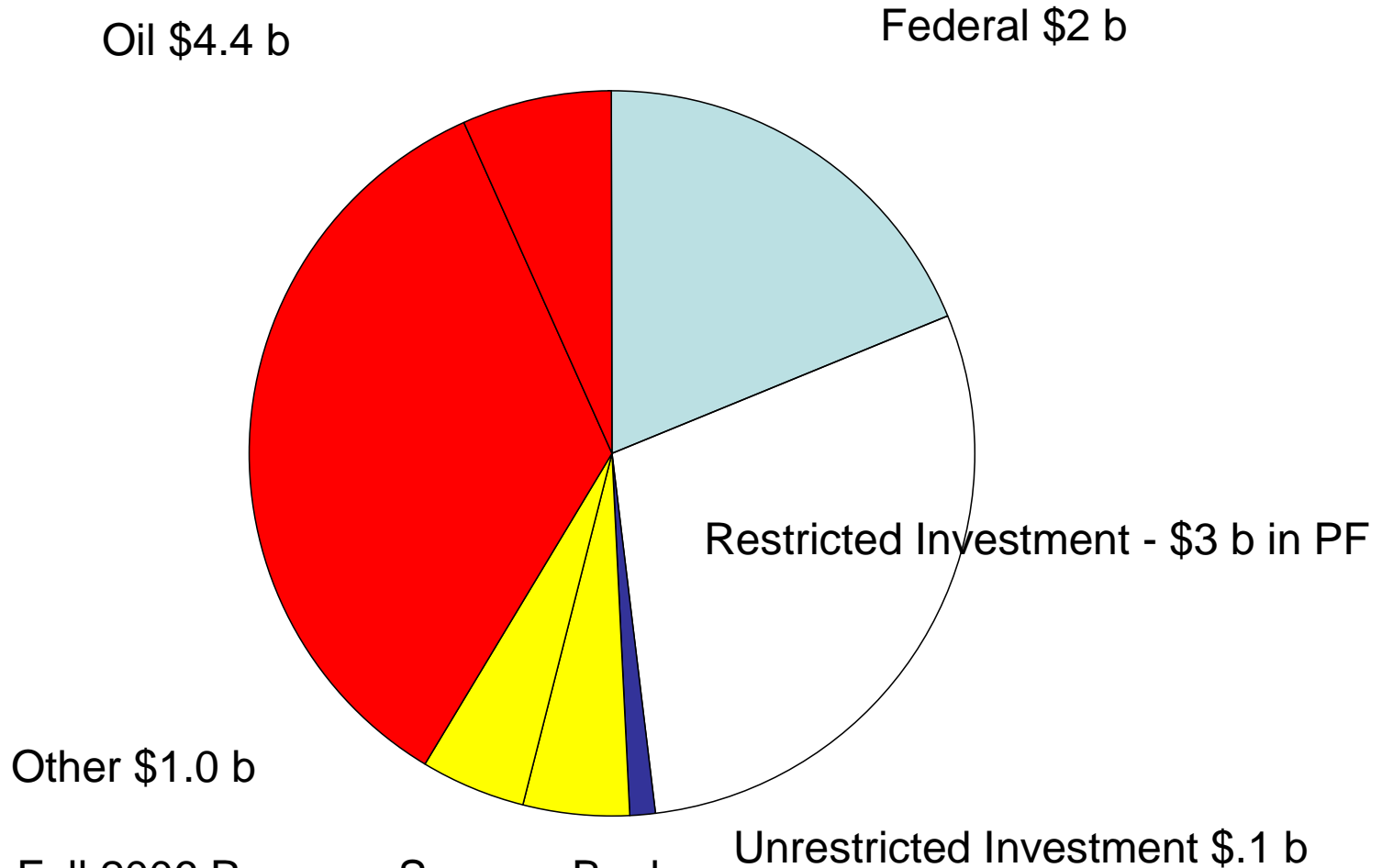
Source: Alaska Department of Revenue, Fall 2006 Revenue Sources Book. extrapolated
 (1) Cook Inlet, Duck Island, Milne Point, Greater Point McIntyre, Liberty, Known On & Offshore, Fiord and NPRA.

2006 State Revenues of \$10.5 b



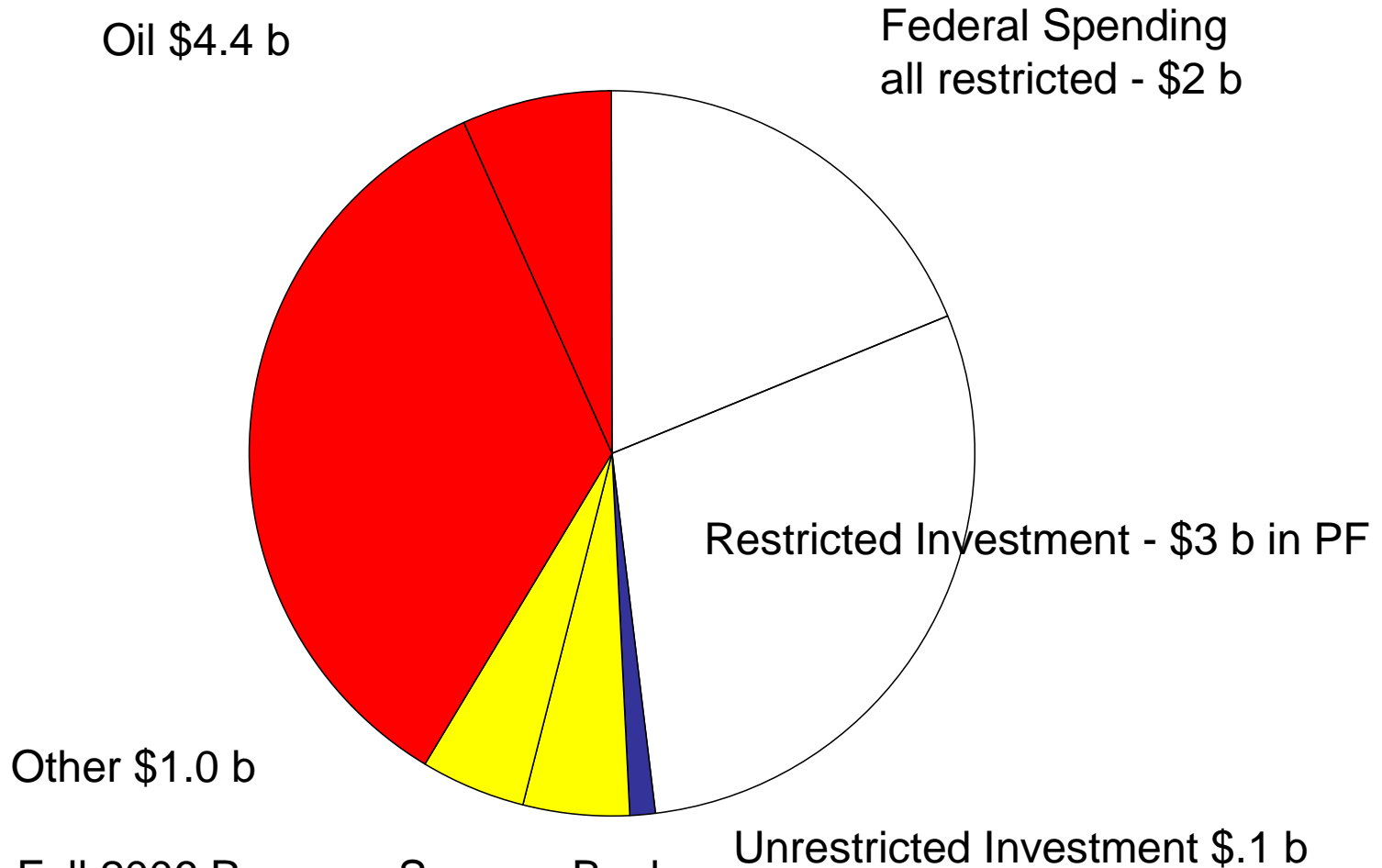
Source: Fall 2006 Revenue Sources Book

2006 State Revenues of \$10.5 b



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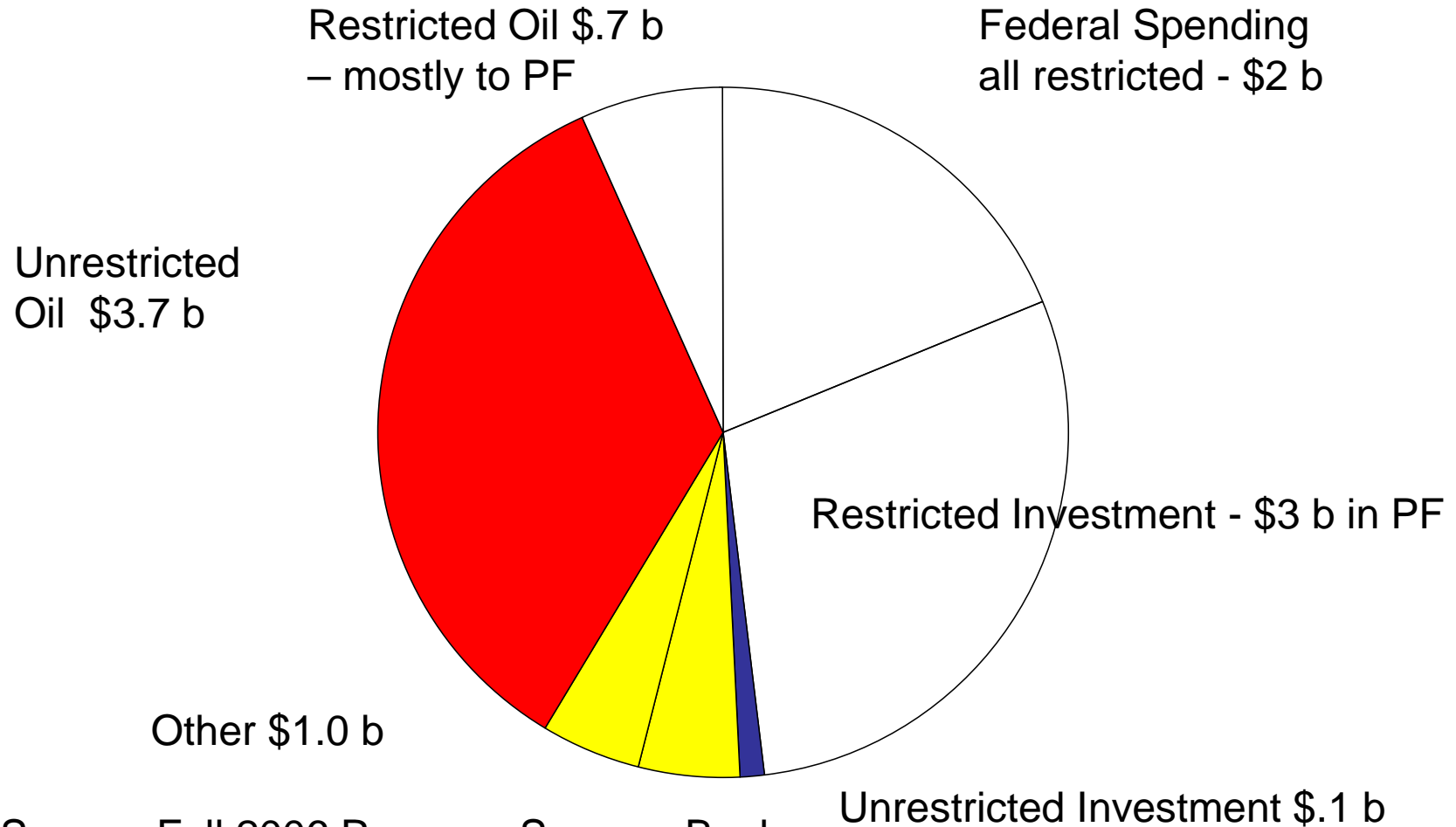


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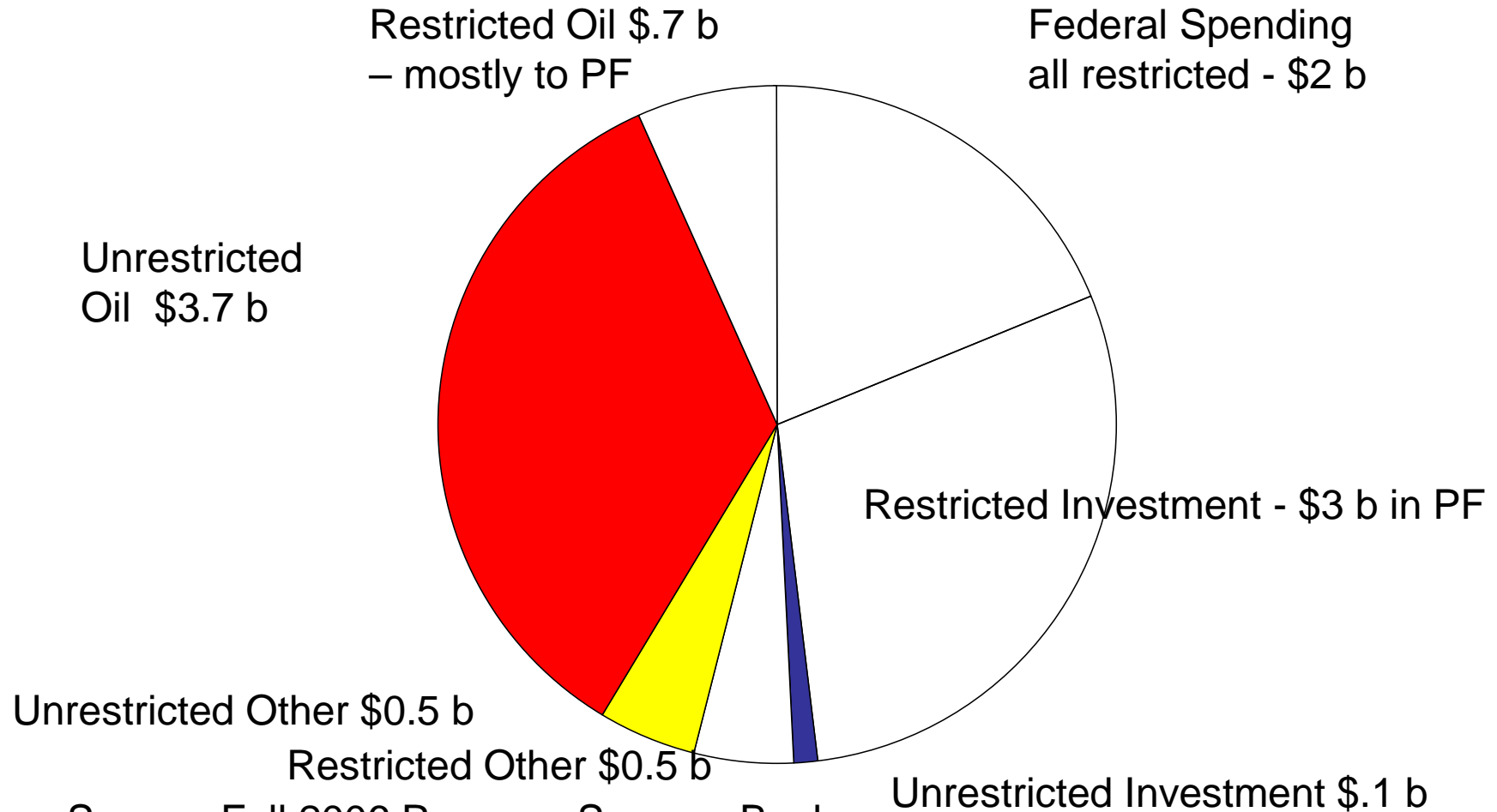
New Ideas: Reforming Alaska's
Oil and Gas Production Tax (PPT)

2006 State Revenues of \$10.5 b



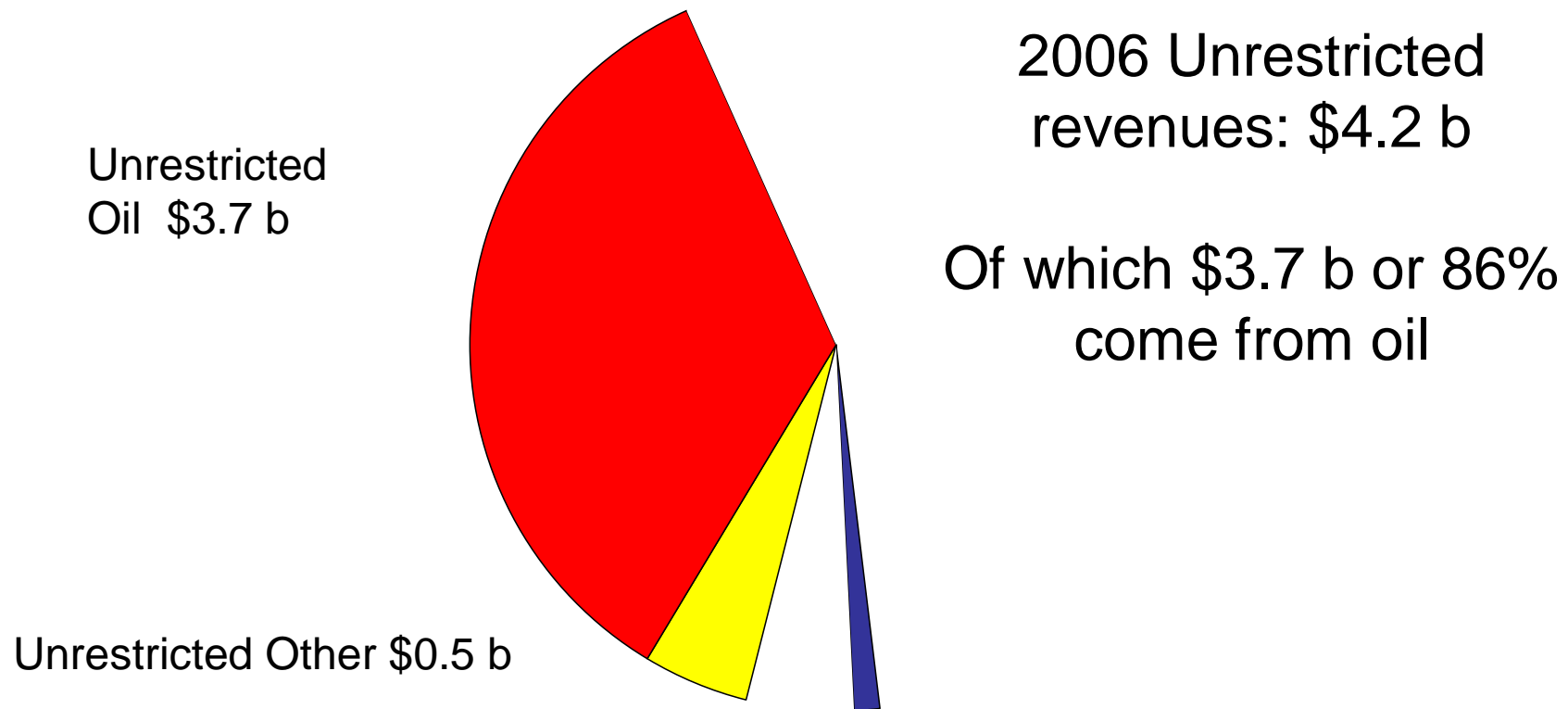
Source: Fall 2006 Revenue Sources Book

2006 State Revenues of \$10.5 b



Source: Fall 2006 Revenue Sources Book

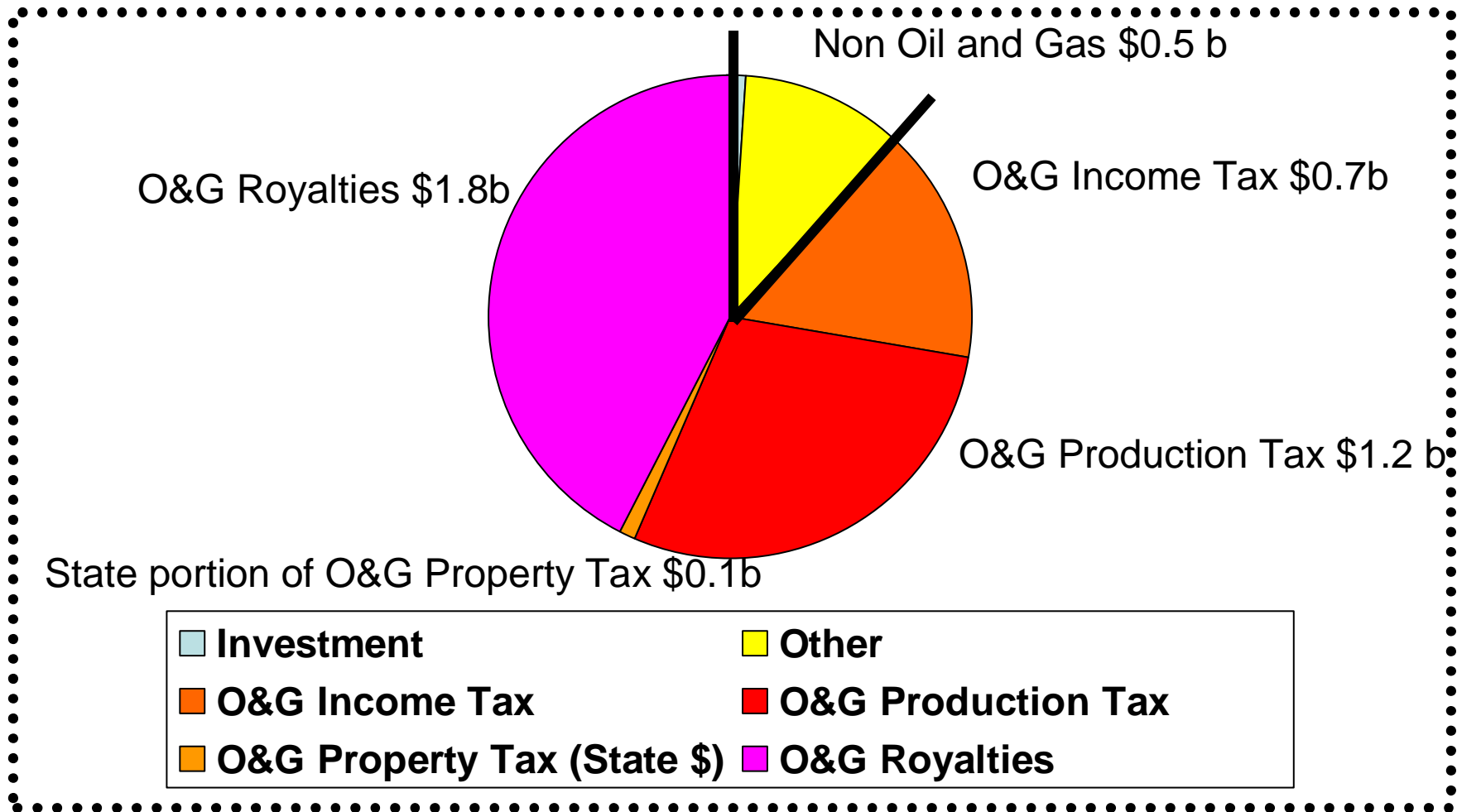
2006 State Revenues of \$10.5 b



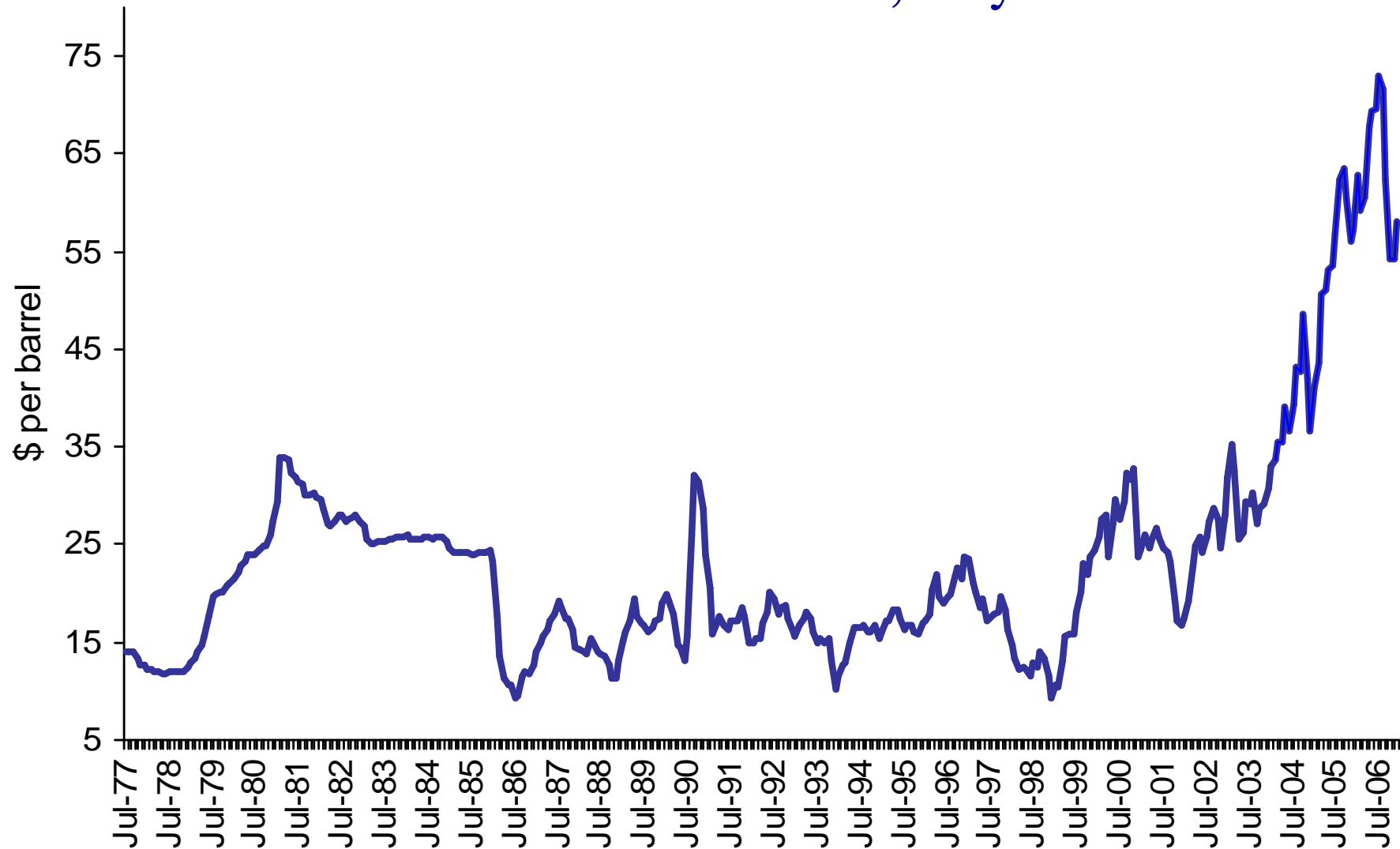
Source: Fall 2006 Revenue Sources Book

2006 State Unrestricted Revenues

\$4.2 b



ANS West Coast Price, July 1977 – Dec 2006

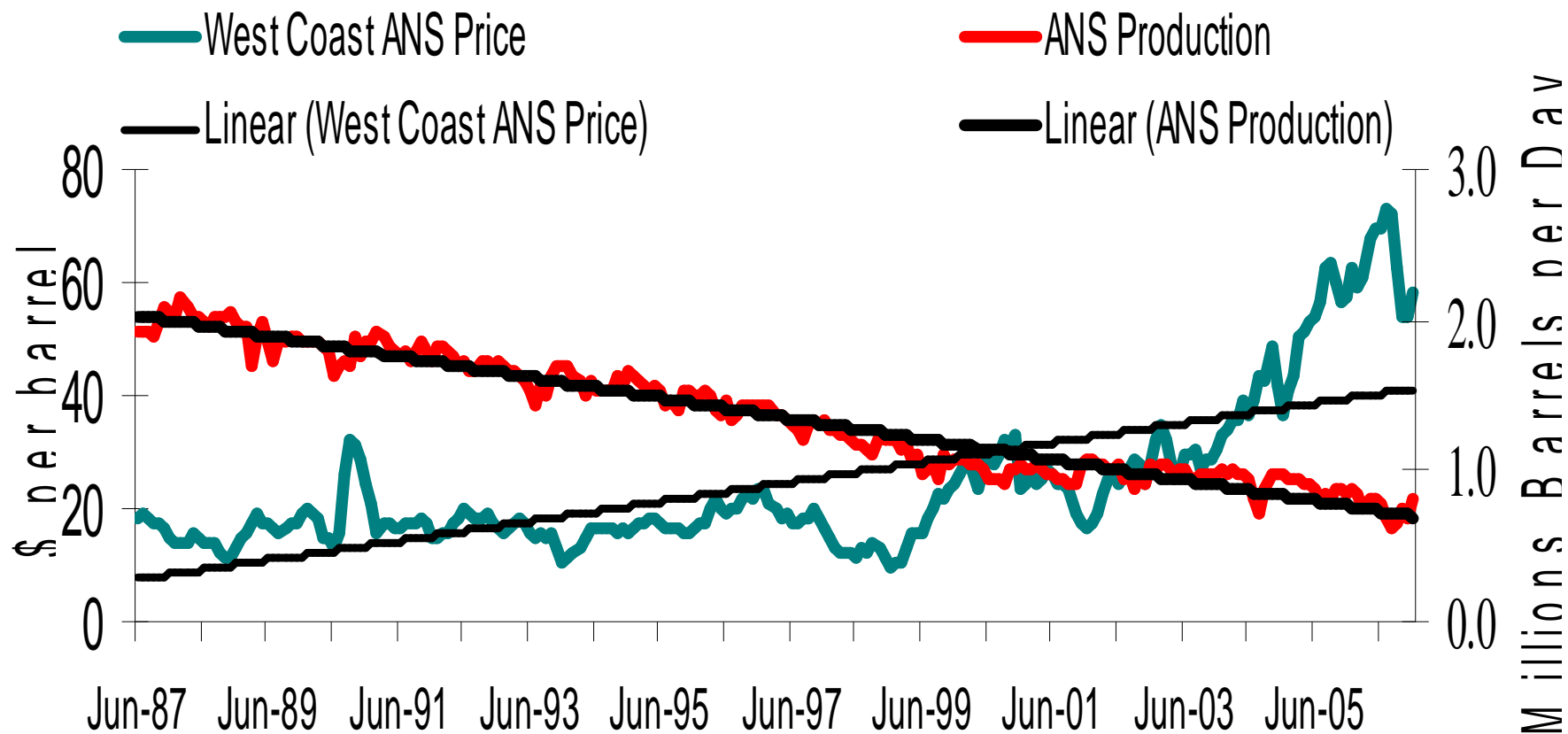


Source: Alaska Department of Revenue, Tax Division

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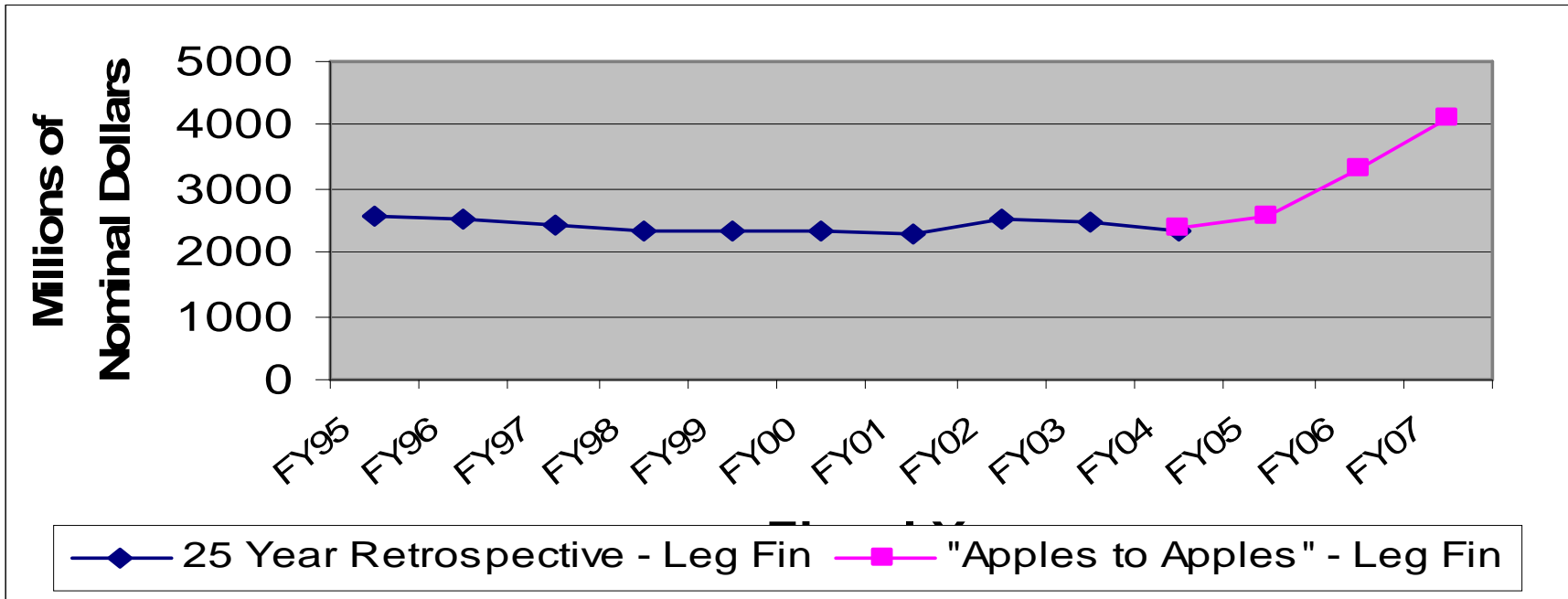
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ANS West Coast Price and Oil Production



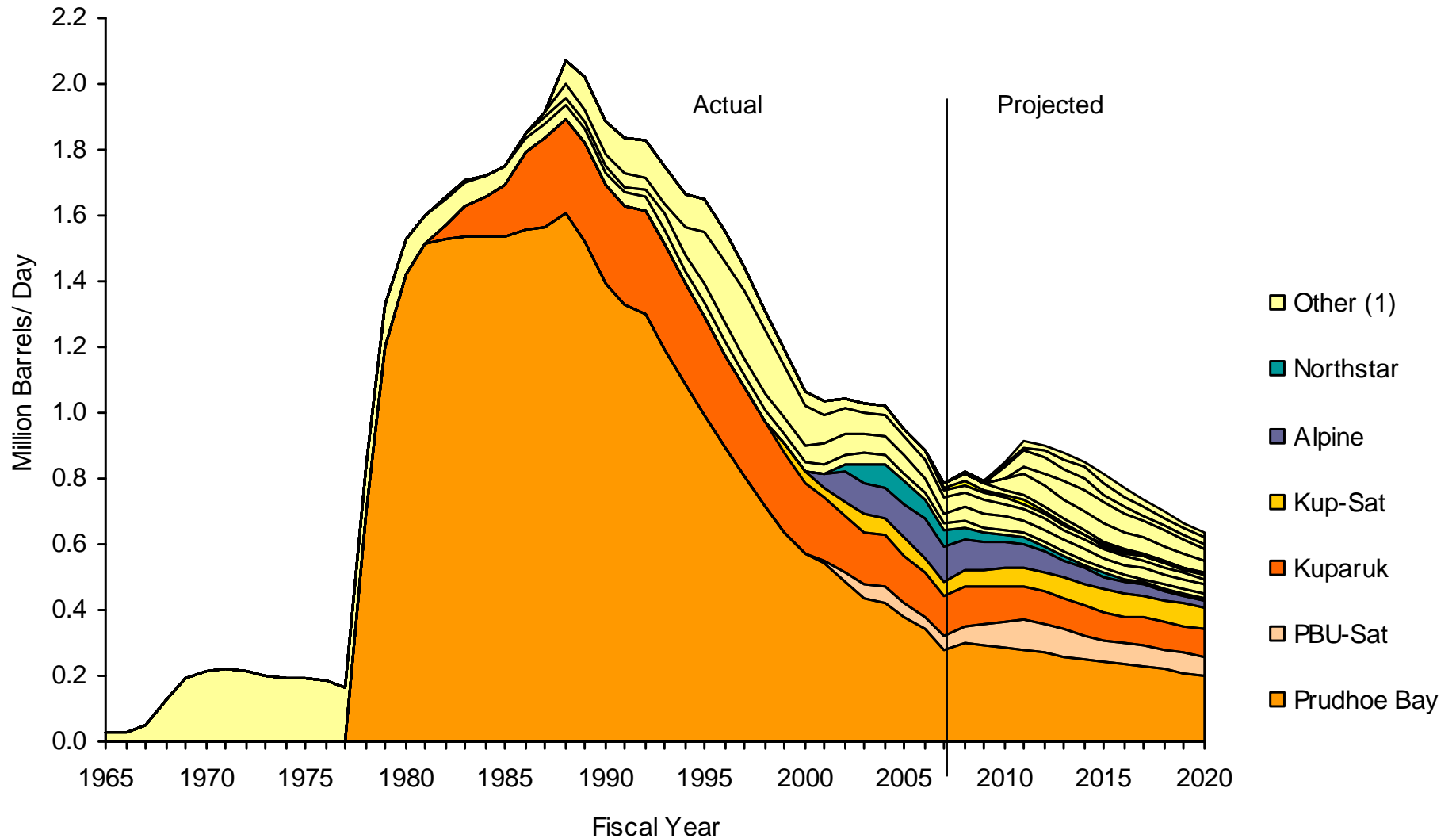
Source: Alaska Department of Revenue, Tax Division

State of Alaska General Fund Budget



Source: http://www.legfin.state.ak.us/charts/Historical_Chart_Data.xls
<http://www.legfin.state.ak.us/fisSum/FY07-Budget.pdf>

Alaska Oil Production, 1965 - 2020



Source: Alaska Department of Revenue, Fall 2006 Revenue Sources Book. extrapolated

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

The Next Prudhoe Bay? 3 Options:

- Probably not conventional oil, but we won't know unless we look – exploration important
- Viscous Oil – High upstream costs, but can deliver to TAPS
- Gas – Already “producing” 8 bcf a day on the slope, but high downstream costs to get gas to market.

North Slope Viscous Oil

- Original Oil in Place (billions of barrels)
Producing Fields
 - Prudhoe Bay 28.1
 - Kuparuk (non viscous) 6.4
 - *Kuparuk Viscous* 12.0
 - All Other Producing (non viscous) 3.8
 - *All Other Producing - Viscous* 1.6
 - Subtotal Producing Fields 51.9
 - *Percentage Viscous* 26%

North Slope Viscous Oil

- Original Oil in Place (billions of barrels)

Subtotal Producing Fields	51.9
Discovered but not Producing	
– <i>Ugnu Field</i>	7.0
– <u>All Other Know Fields</u>	4.1
Total Original Oil in Place	63.0
<i>Viscous oil:</i>	20.6
– <i>Percentage Viscous</i>	33%

Source: Fall 2002 Revenue Sources Book

Oil Production Costs – Canadian Tar Sands

- 1985 Mining \$30 a barrel
 » In Situ (EOR) \$16 a barrel

- 2003 Mining \$15 a barrel
 » In Situ (EOR) \$10 a barrel

- 2004 US dollars
- Source: IEA Resources to Reserves, 2005

Specific Good Idea to make the world a better place 1:

- Tax viscous oil less heavily than conventional oil.
 - How? Tax on the **net** cost of getting the barrel to market, not the **gross** value of the barrel in the market.
 - Use general rule rather than “viscous oil” rule

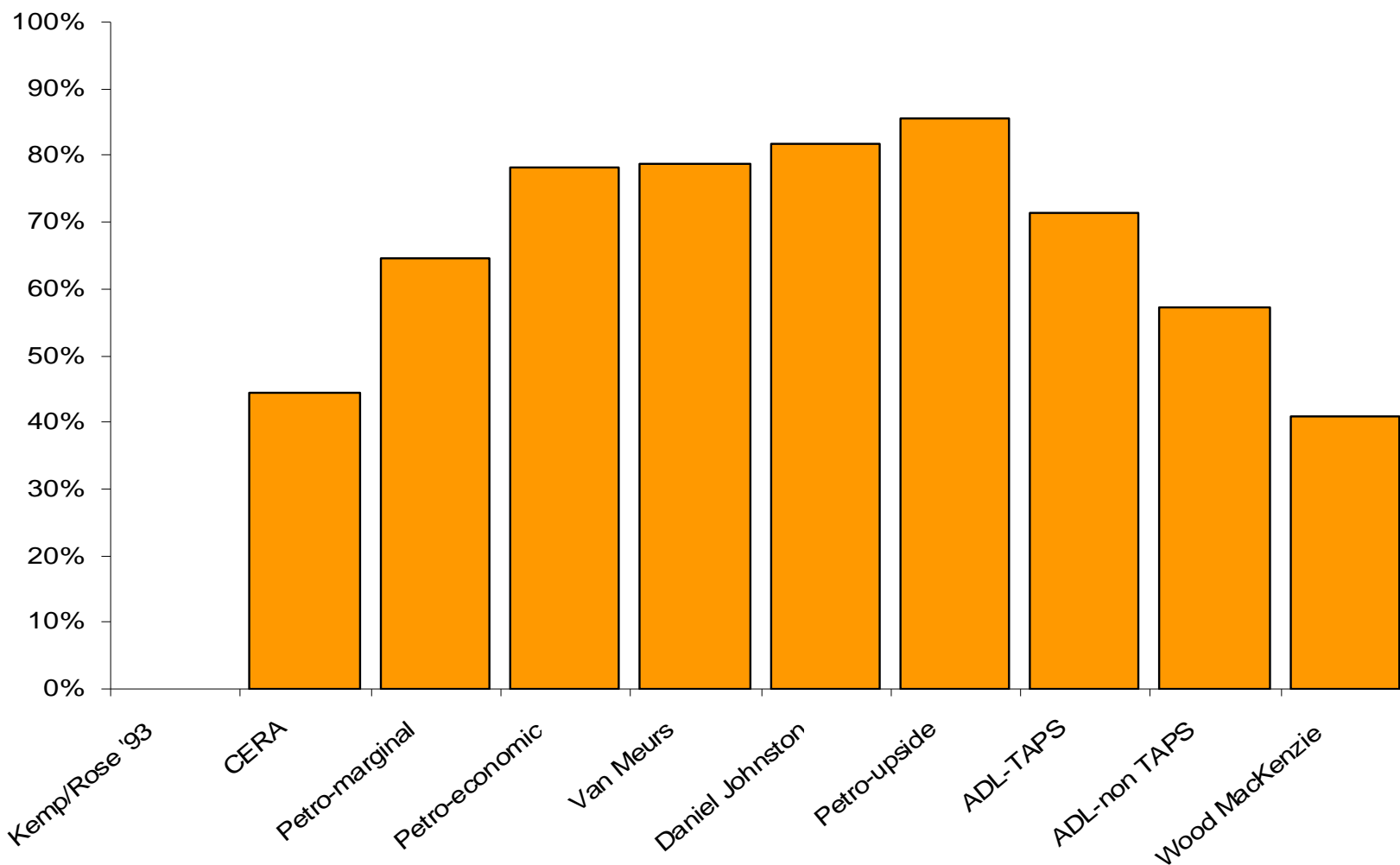
Specific Good Idea to make the world a better place 2:

- Share investments in viscous and other challenged
- Encourage exploration
 - Allow upfront **credits** (**cost and risk sharing** with state) for upfront investments needed for viscous oil and exploration.
 - 2003 Exploration Credits
 - Prior to that Alaska was almost alone in not using taxes to encourage investment

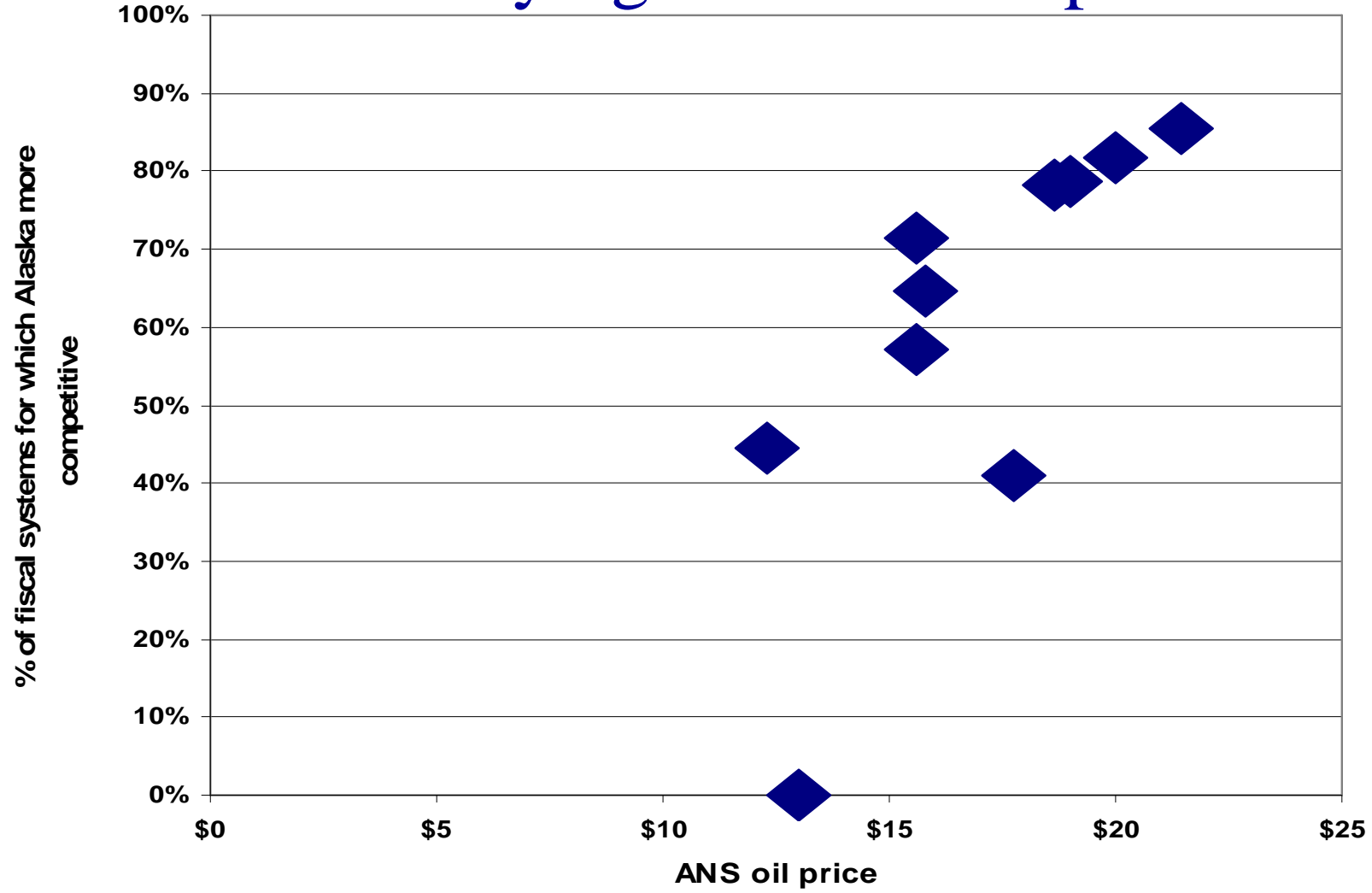
PPT

- Tax on 22.5% of the net barrel
- Credits allowed for 20% of capital investment (retain some 40% credits for certain exploration outlays)
- State supporting 42.5% of capital outlays, 62.5% for some exploration.

Most Experts Rate Alaska as Competitive (100% is most competitive, 0% is least competitive)



Alaska's Fiscal System Ranking Dependent on Underlying Price Assumption



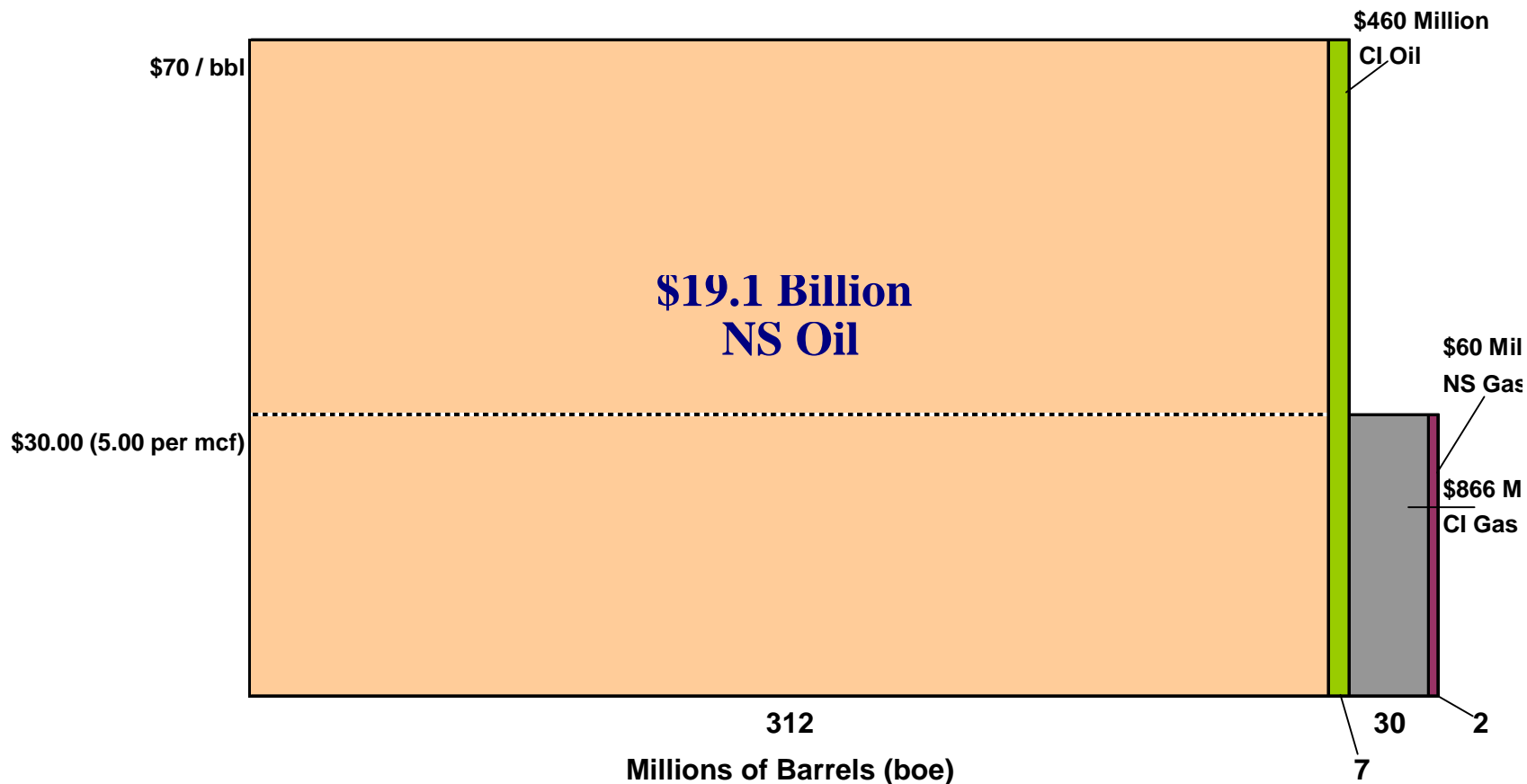
Specific Good Idea to make the world a better place 3:

- PPT makes state's fiscal system less regressive than it used to be:
- When the value of or profit on each barrel of oil increases, so too should the state's take.
- Tools – net vs gross
 - Progressivity charge

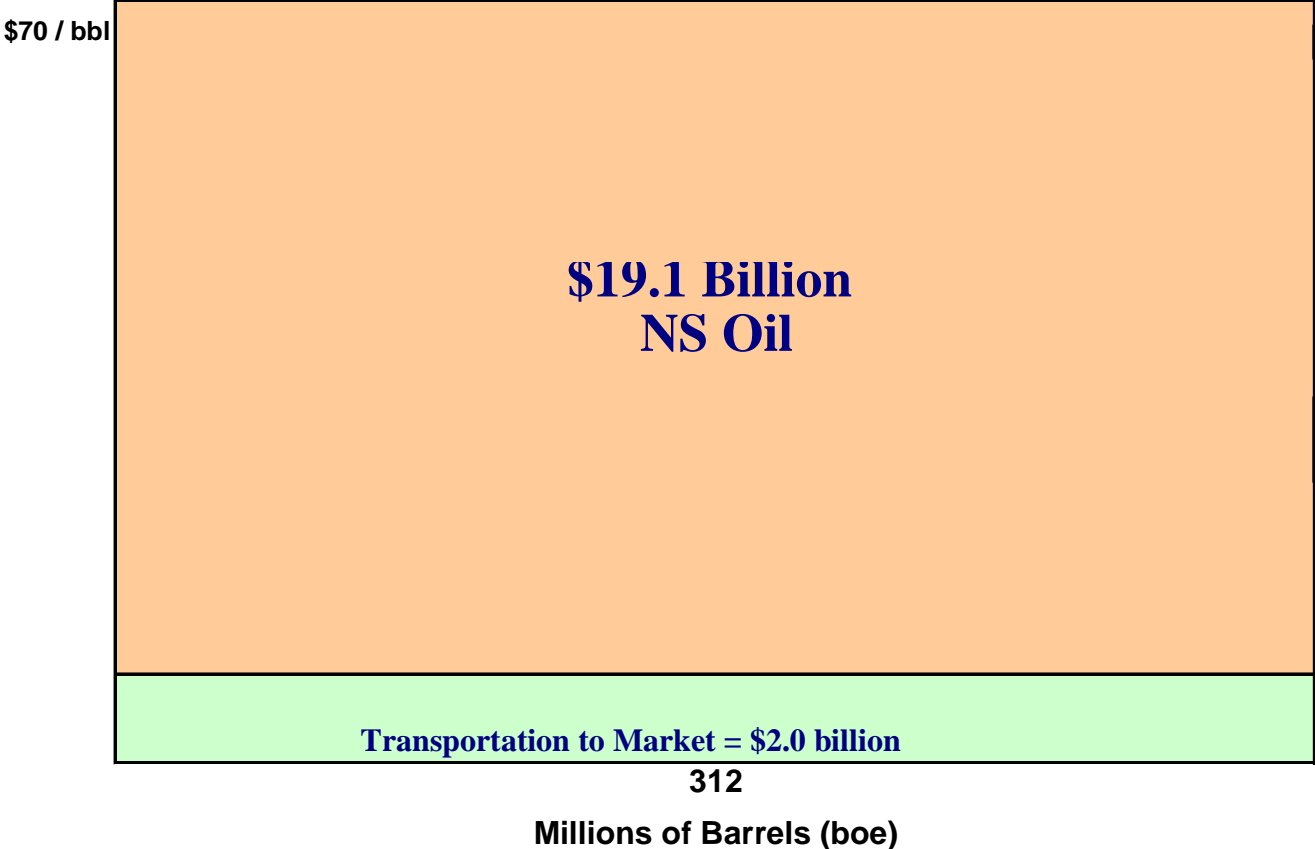
Concern:

- Will deductions and credits “eat up” the tax?
- Will oil industry accountants and lawyers manipulate the numbers to gut the tax?

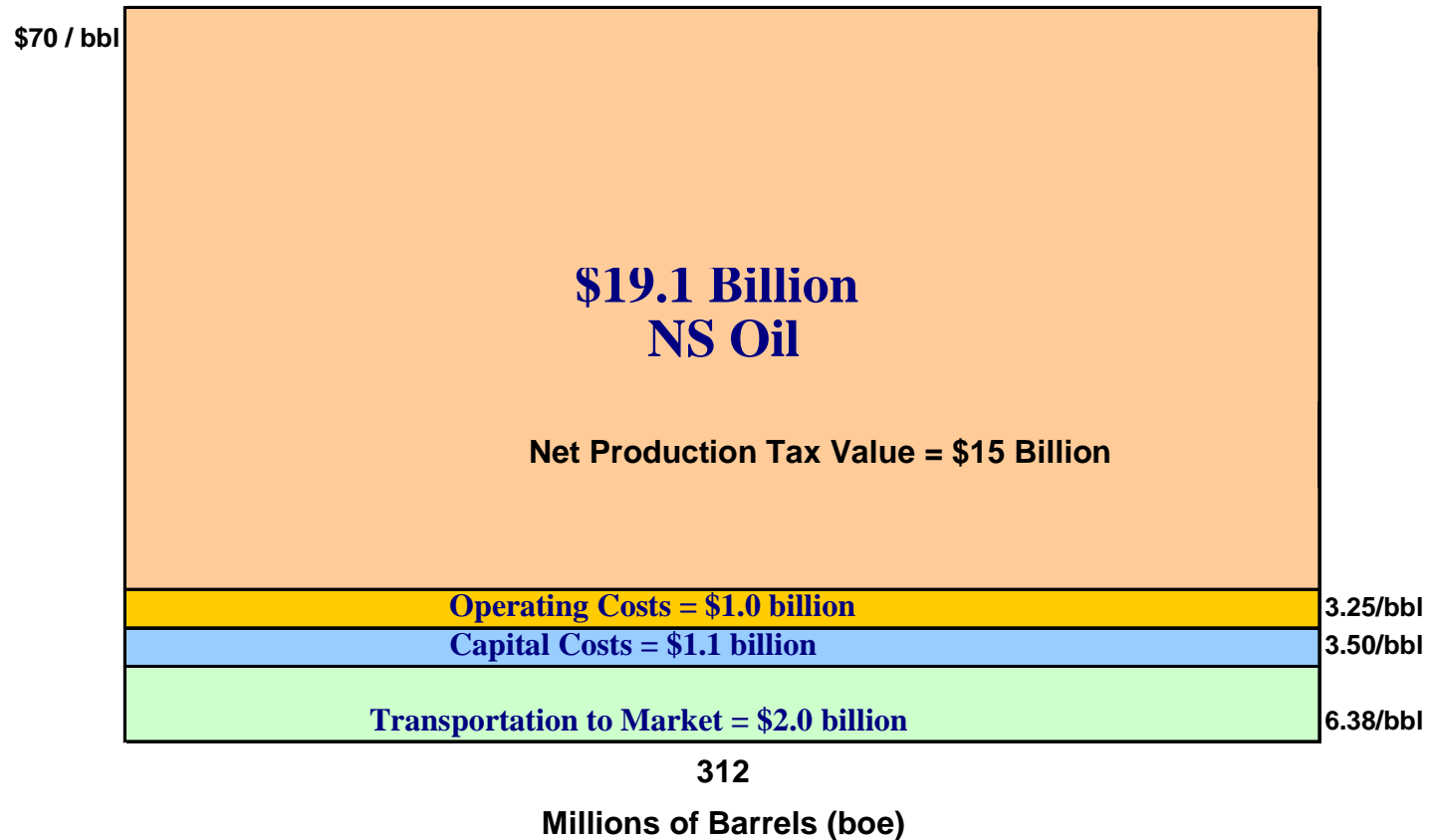
Sale at Market



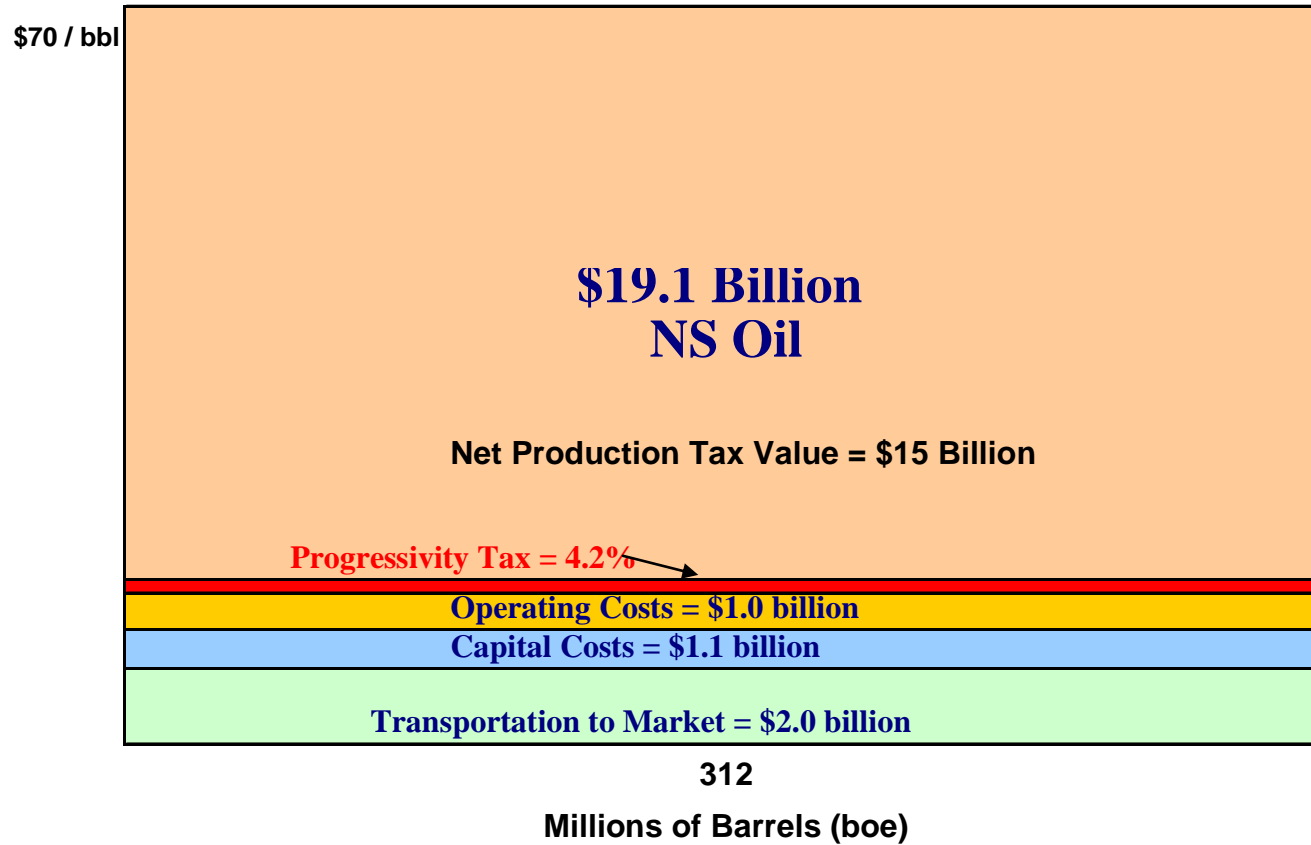
Gross Value at Point of Production



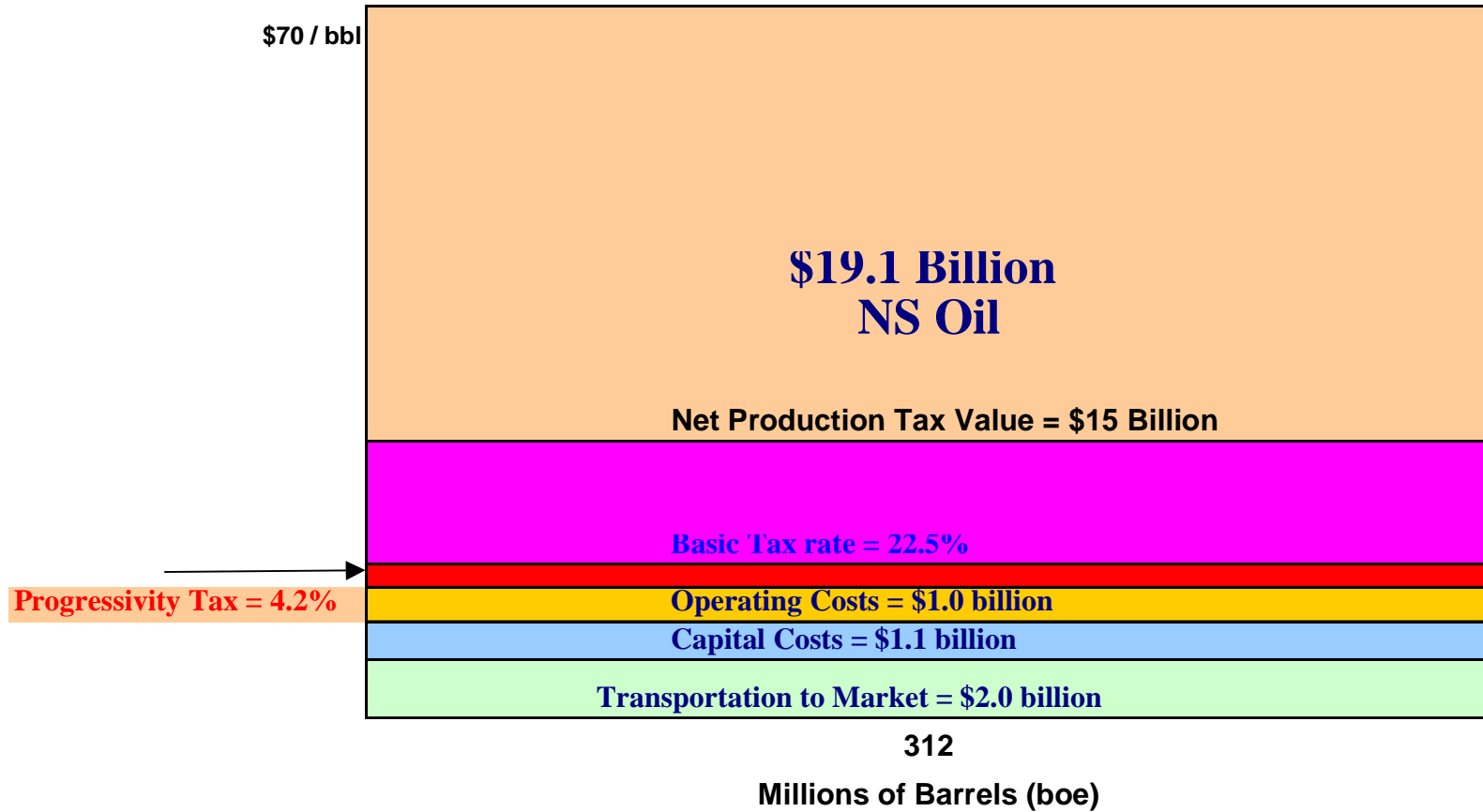
Net Value or Production Tax Value



Progressivity Tax



Basic Tax Rate



Tax before credits

Basic tax rate = 22.5%

Basic tax = \$3,375 million

Progressivity Tax = 4.2%

Progressivity tax = \$630 million

312

Millions of Barrels (boe)

Tax After Credits

Base allowance credit: $\$12\text{m} \times 4 \text{ users} = \48 million

TIE credit: $1.1\text{b} \times .5 \times .2 = \110 million

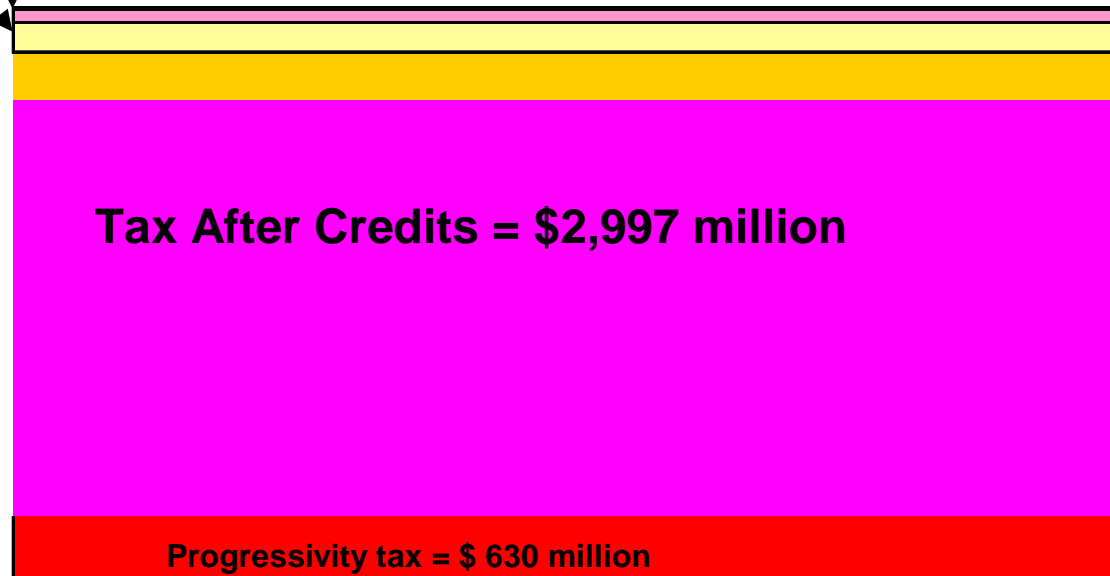
Qualified Capital Expenditure Credits:

$1.1 \text{ b} \times .20 = \220 million

Basic tax before credits

$= \$3,375 \text{ million}$

Total Tax after credits = $\$3,627$



312

Millions of Barrels (boe)

Comparison to Status Quo

Total Tax under PPT = \$3,627

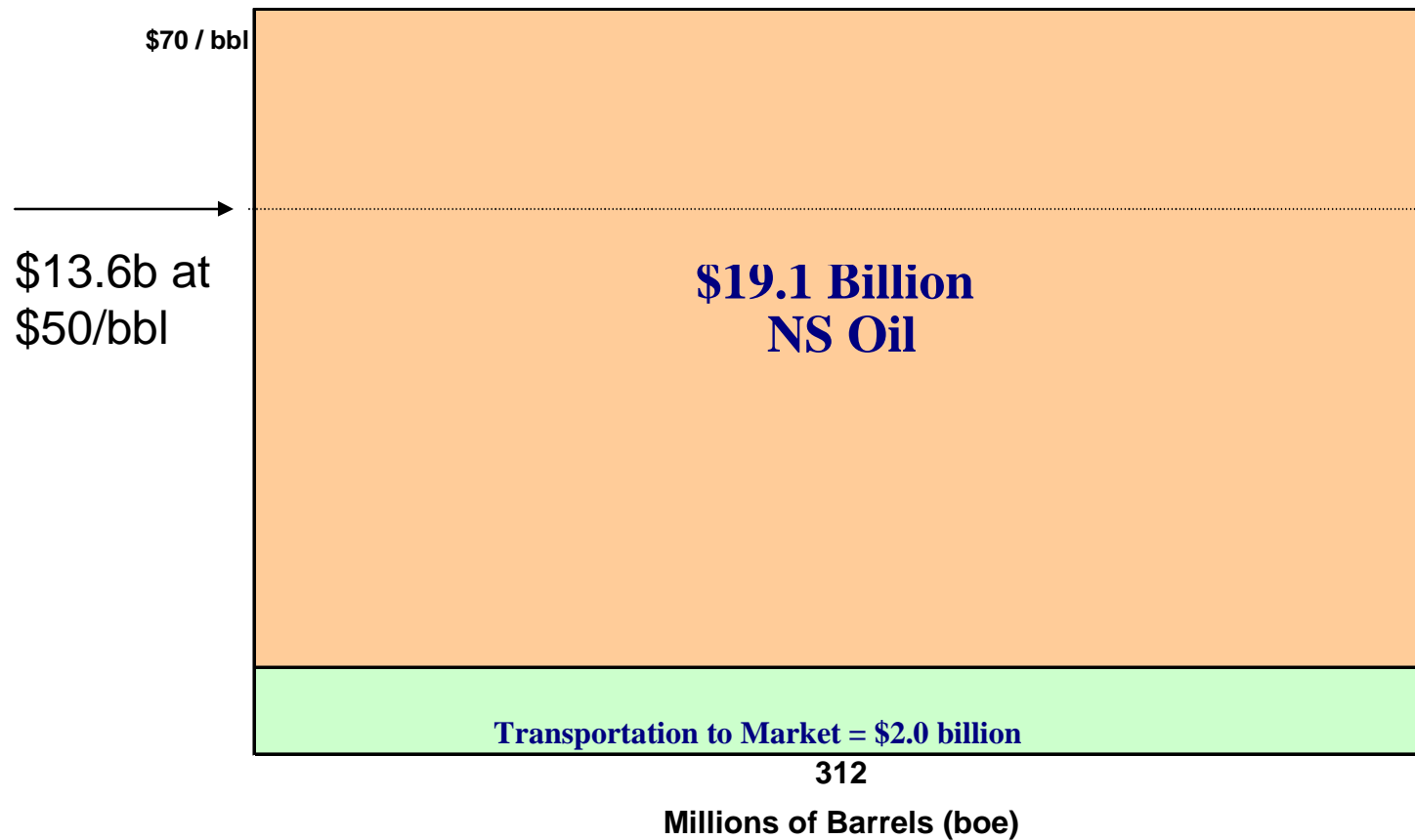
Additional tax under PPT = \$ 2,194 million

Tax under Status Quo = \$ 1,433 million

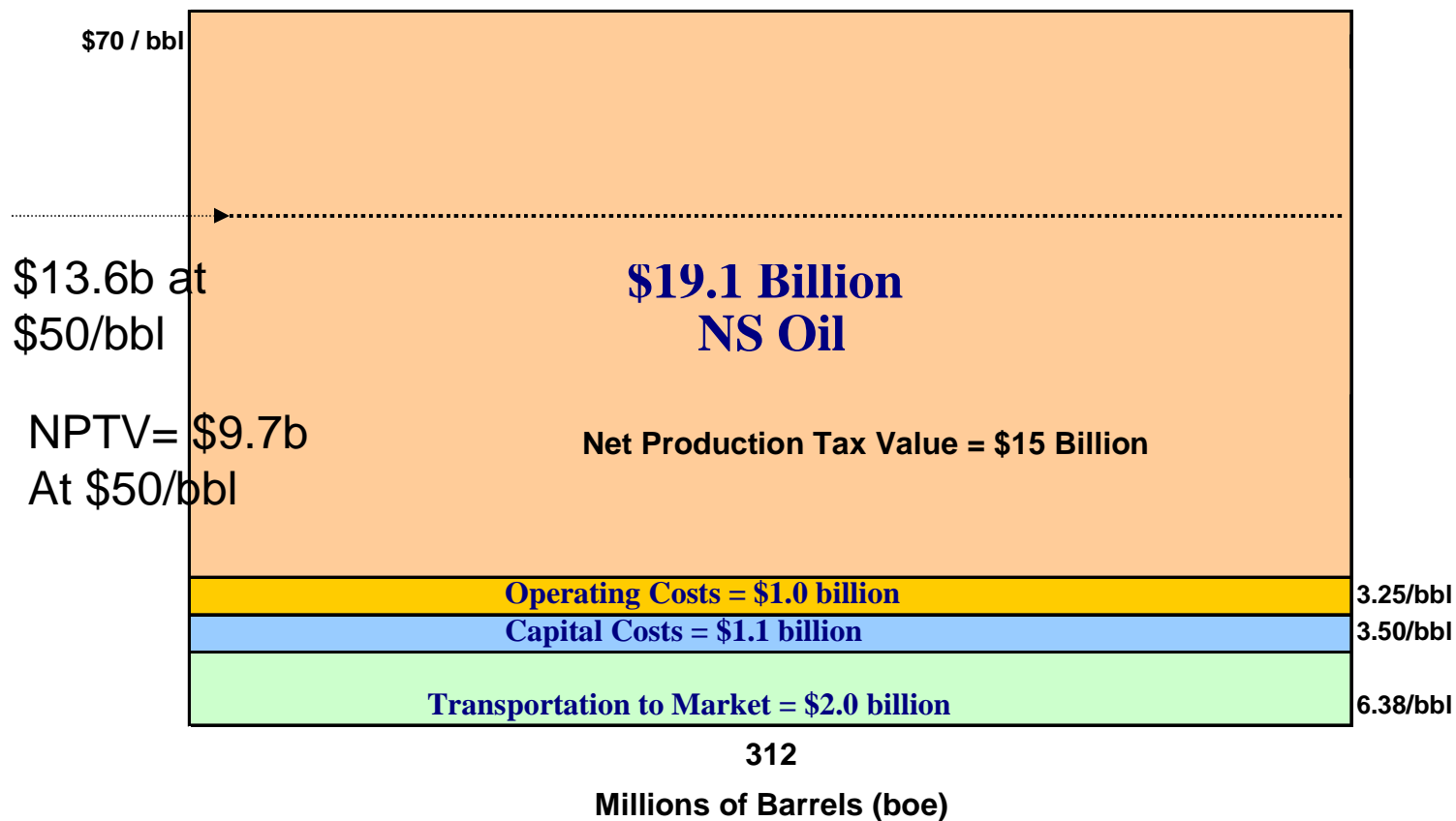
312

Millions of Barrels (boe)

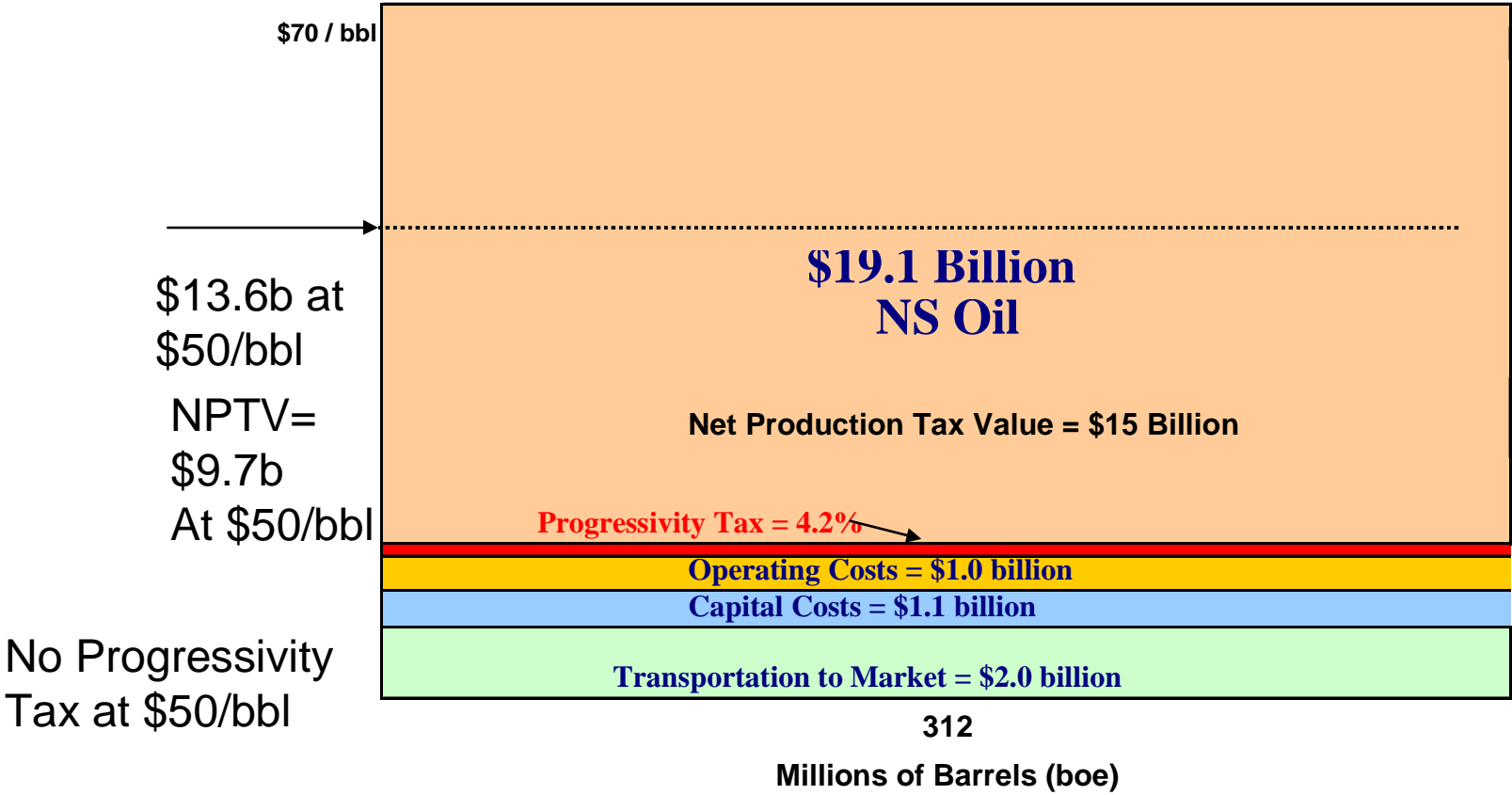
Gross Value at Point of Production



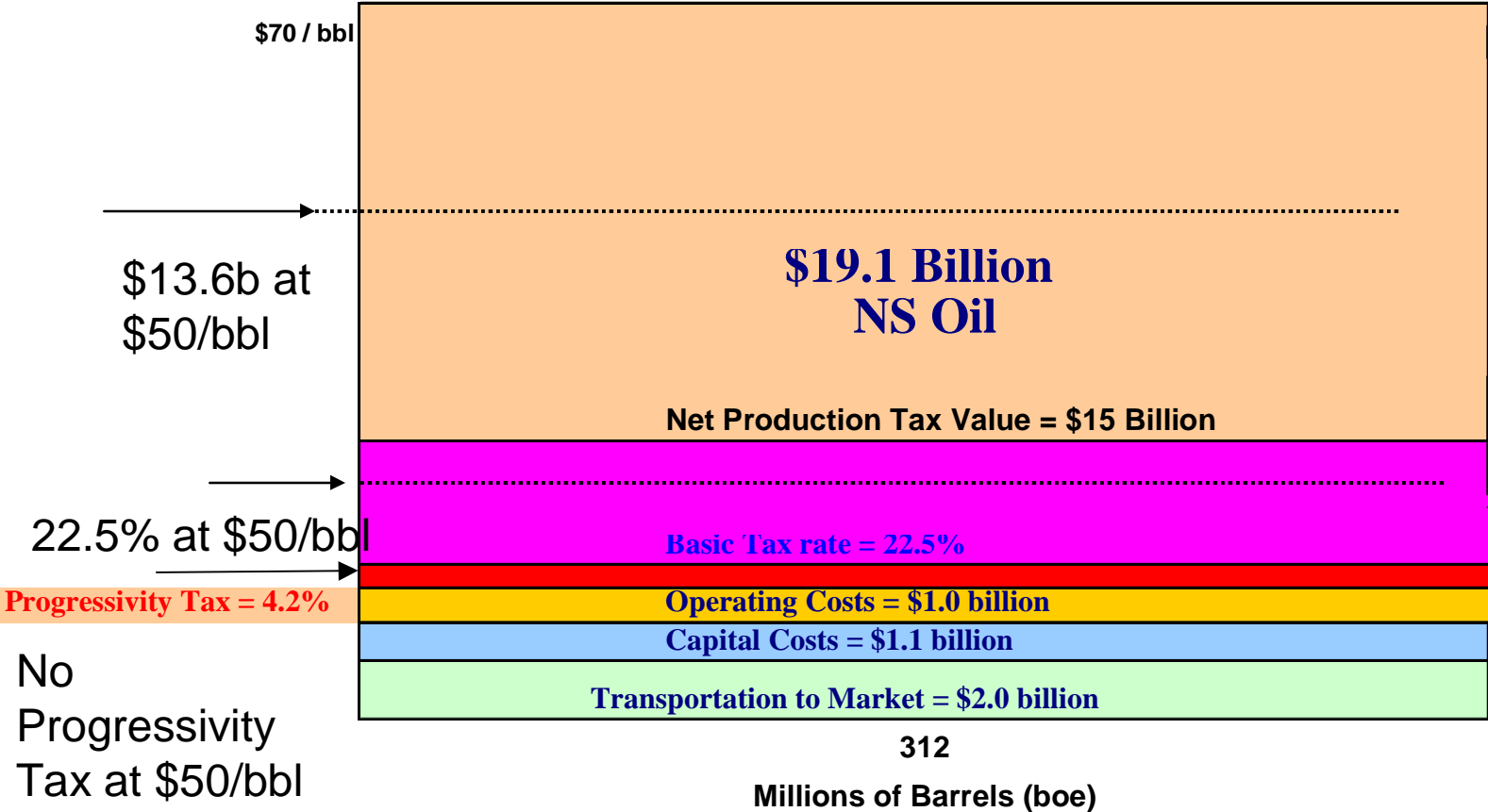
Net Value or Production Tax Value



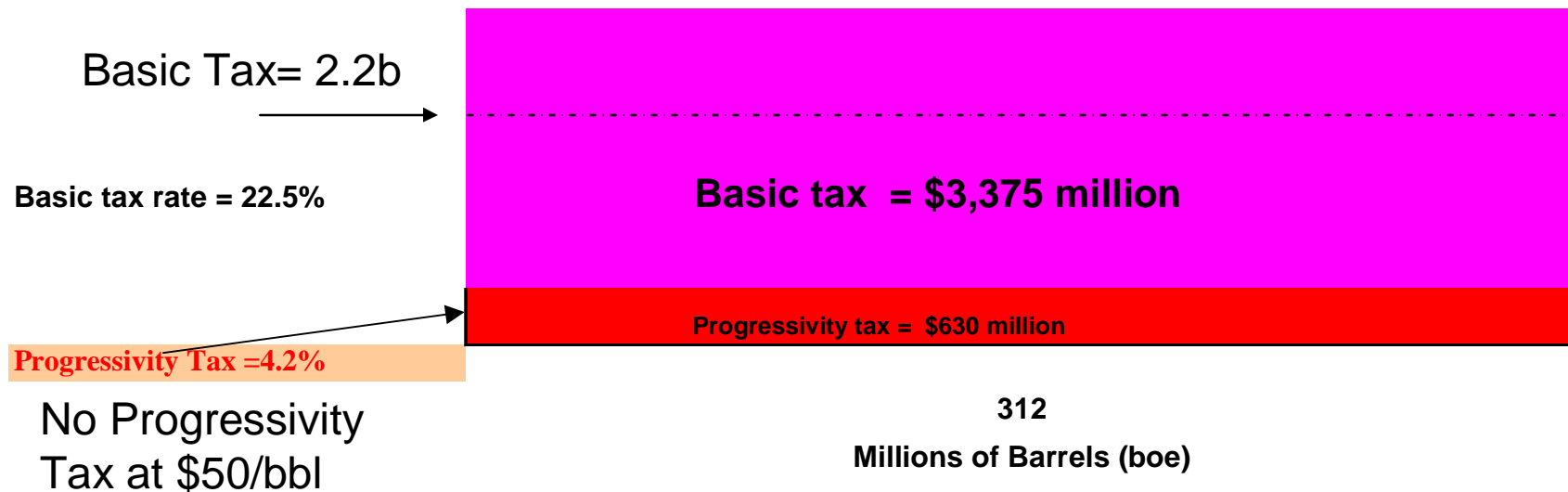
Progressivity Tax



Basic Tax Rate



Tax before credits



Tax After Credits

Base allowance credit: $\$12\text{m} \times 4 \text{ users} = \48 million

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Qualified Capital Expenditure Credits:

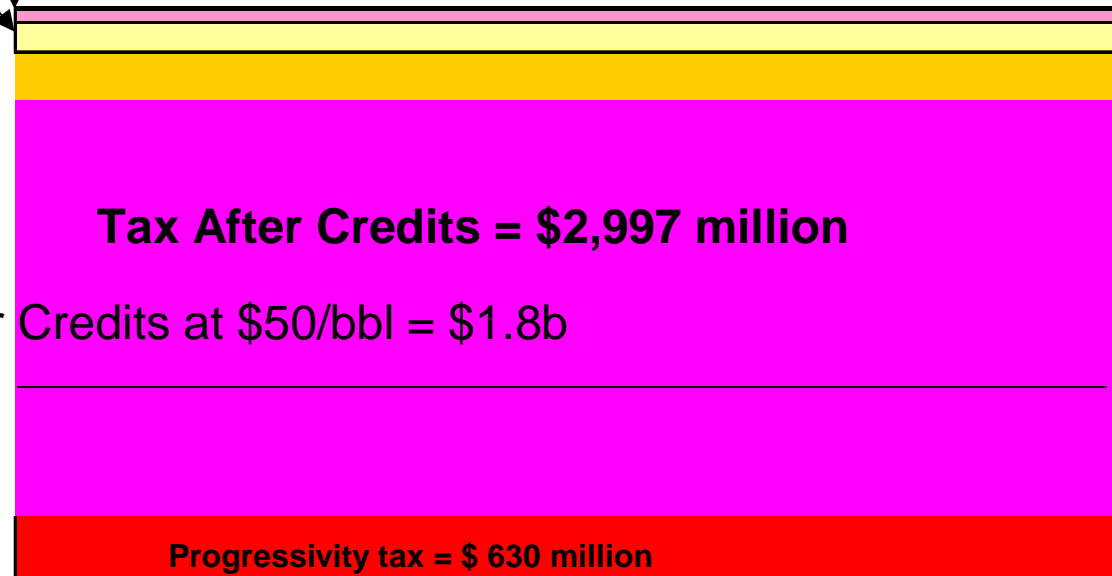
$1.1 \text{ b} \times .20 = \220 million

Basic tax before credits

= $\$3,375 \text{ million}$

Tax After Credits at $\$50/\text{bbl} = \1.8b

Total Tax after credits = $\$3,627$



312

Millions of Barrels (boe)

Comparison to Status Quo at \$50/bbl

- Total Tax under PPT at \$50/bbl = \$1.8 b
- Total Tax (prior regime) at \$50/bbl=\$.95B
- Incremental PPT Tax at \$50 bbl=\$.85b

Good Idea to make the world a better place 4:

- Take advantage of the intense auditing and cost control currently going on the North Slope



North Slope Operations

- Prudhoe Bay – BP operates on behalf of EM and CP and others
- Kuparuk – CP operates on behalf of EM, BP, Chevron and others
- Alpine – CP operates on behalf of Anadarko
- Endicott – BP operates on behalf of EM, Chevron and others

North Slope Operations

- Milne Point – BP owned and Operated
- North Star (state portion) BP owned and Operated

Regulations Project – 60 Boxes

- Five Basic Tax Applications
 - .011 (e) 22.5% of net
 - .011 (f) floor of 0,1,2,3,4% on Gross (for ANS)
 - .011 (g) and (h) Progressivity
 - .011 (j), (k), and (m) Cook Inlet ceilings
 - .011 (i) tax on private royalties

Regulations Project – 60 Boxes

- Four credits –
 - .023 Loss carryforward, capital investment and Transitional Investment Expenditure.
 - .024 Non transferable (12 Million for company producing less than 100,000 bbls a day)
 - .025 Exploration
 - Royalty Credits

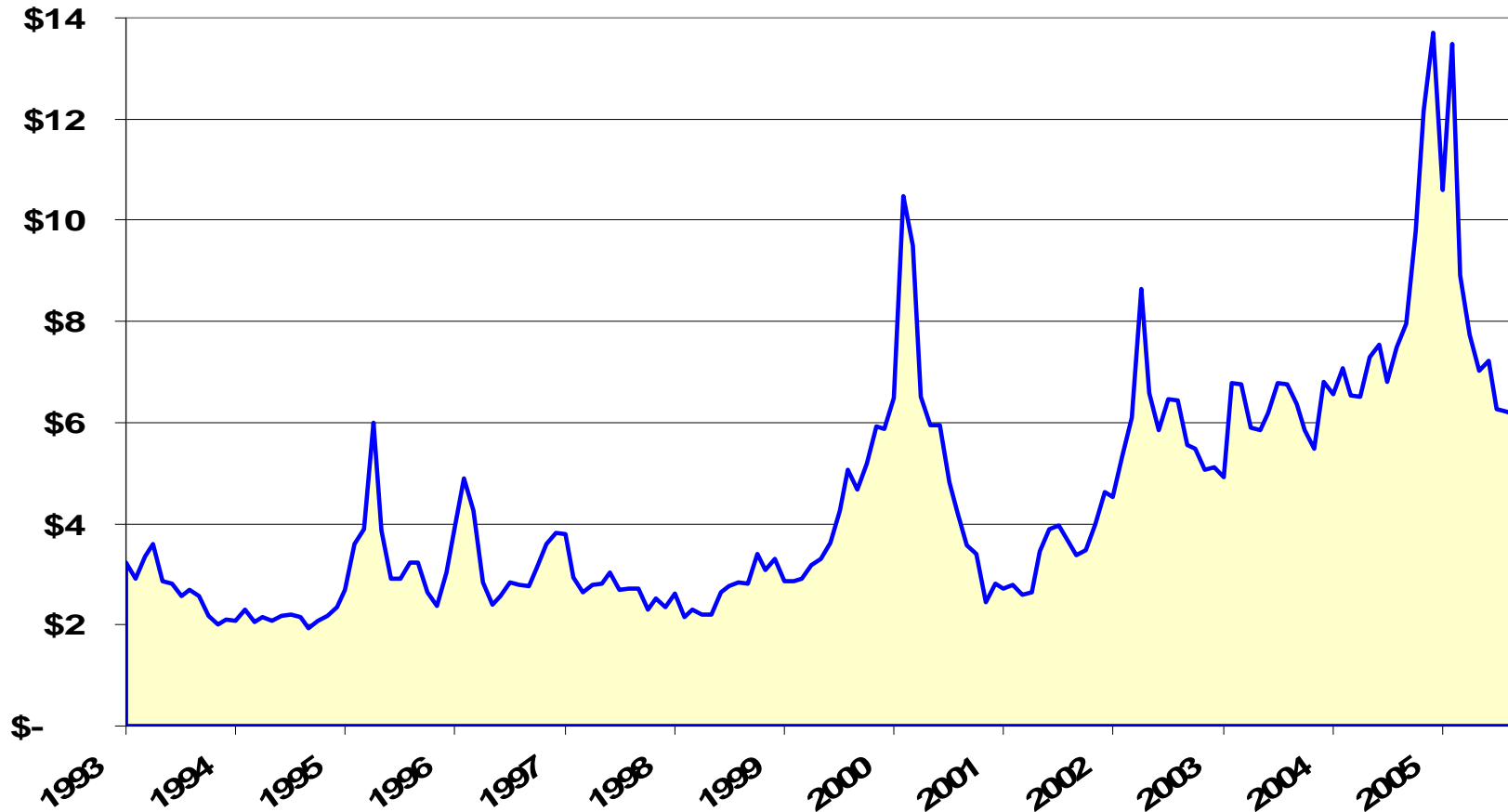
Regulations Project – 60 Boxes

- Three tax areas
 - ANS – separate floor
 - Cook Inlet Oil & Gas – separate ceiling
 - Everywhere else – new area development credits

North Slope Gas: FT

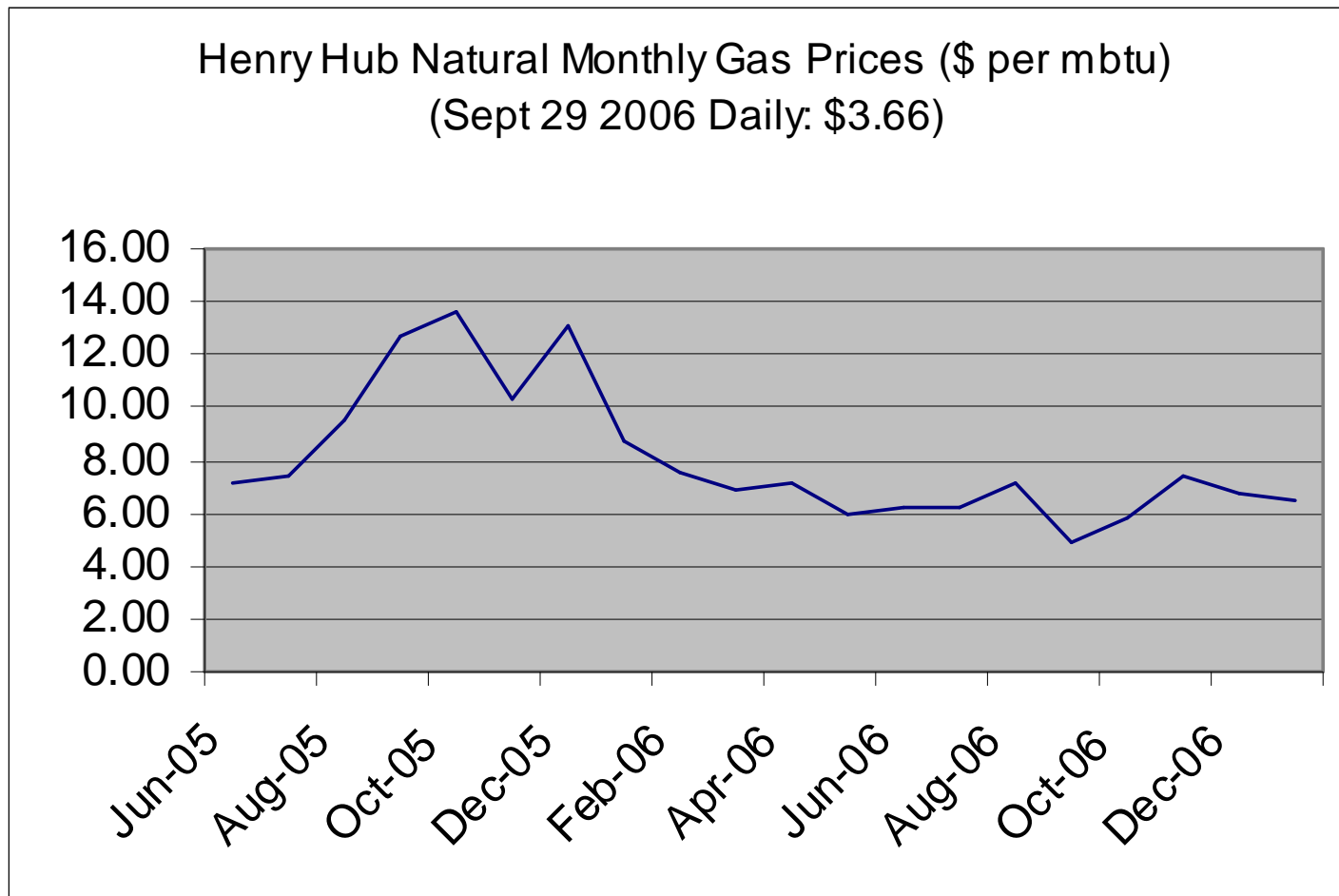
- A pipeline is permitted by the feds because shippers have made FT (Firm Transportation) commitments.
- A pipeline is financed by taking those FT commitments to a lender.
- We get a pipeline by making FT commitments more likely.
- Shippers' credit underwrites the pipeline

North Slope Gas: Natural Gas Prices



Historical monthly Henry Hub natural gas prices (\$/ million BTU)

North Slope Gas: Natural Gas Prices



More info (AND JOBS!!!)

- Tax Division Web Site
- www.tax.state.ak.us