

**SB**

**2001**

**(FILE 10)**

**10/20/07**

**1. Gavel In & Call to Order : Note time – members present**

**I CALL THE SENATE RESOURCES COMMITTEE TO ORDER ON SATURDAY, OCTOBER 20, 2007. LET THE RECORD REFLECT THAT IT IS \_\_\_\_\_ A.M..**

**PRESENT ARE:**

**Vice-Chairman Senator Bert Stedman  
Senator Gary Stevens  
Senator Lyda Green  
Senator Lesil McGuire  
Senator Bill Wielechowski  
Senator Tom Wagoner  
& myself, Senator Charlie Huggins**

**2. SB 2001 OIL & GAS TAX AMENDMENTS  
Part II Alaska's Global Competitiveness Under ACES**

**Welcome:**

**Bob George, Gaffney, Cline & Associates  
Rich Ruggiero, Gaffney, Cline & Associates  
Roger Marks, Economist, Dept. of Revenue  
Thorsten Wucherphennig, PFC Energy  
Dr. Michael Williams, Chief Economist, Dept. of Revenue,  
Patrick Galvin, Commissioner, Dept. of Revenue  
Marcia Davis, Deputy Commissioner, Dept. of Revenue  
Kevin Banks, Acting Director, Division of Oil & Gas**

- a. Ask the speakers to introduce themselves for the record.**

**3. Announce: We'll be back tomorrow for our joint meeting with House Oil & Gas starting @ 1:00 PM in House Finance committee room**

**6. Meeting adjourned @ \_\_\_\_\_.**

# ALASKA STATE LEGISLATURE

Sen. Charlie Huggins, Chair  
Sen. Bert Stedman, Vice Chair  
Sen. Lyda Green  
Sen. Gary Stevens  
Sen. Lesil McGuire  
Sen. Bill Wielechowski  
Sen. Thomas Wagoner



State Capitol, Room 119  
Juneau AK 99801-1182  
907-465-3878  
Fax: 907-465-3265  
800-862-3378

## Senate Resources Committee

Butrovich Rm 205

Saturday, October 20, 2007

8:00 a.m. - 1:00 p.m.

## AGENDA

SB 2001 - Oil and Gas Production Tax

Sponsor Presentation: Governor's Production Tax Team

### II Alaska's Global Competitiveness Under ACES

{ Kevin Brooks, Dep Com of Adm'n  
Nikki Neal, Dir Div of Personnel

Bob George, Gaffney, Cline & Associates

Rich Ruggiero, Gaffney, Cline & Associates

Roger Marks, Economist, Dept. of Revenue

Thorsten Wucherphennig, PFC Energy

Dr. Michael Williams, Chief Economist, Dept. of Revenue,

Patrick Galvin, Commissioner, Dept. of Revenue

Marcia Davis, Deputy Commissioner, Dept. of Revenue

Kevin Banks, Acting Director, Division of Oil & Gas

added to  
agenda -  
re-exempt  
employees &  
classified system

# ACES

SRES HB 2001

Oct 20, 2007 2nd day in SRES  
added to AGENDA:

— re: Exempt Auditors —

Kevin Brooks, Dep Com of Admin

Nickie Neal, Dir, DIV of Personnel & Labor Relations

AGENDA — II AK'S Global Competitiveness Under  
ACES

① Roger Marks re govt take

— Metrics — different types

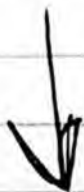
— Two models internal

② PFC Energy — Thorsten Wuckerfennig  
from 190 projects worldwide

③ Peer group countries/  
compare those states against AK  
what drives investment to  
their shores

① Roger Marks — side by side analysts  
long discussion page 2 of "ACES 10-20-07"  
re: ACES vs PPT Schematic slides  
PPT ACES side by side

— "Fair Share" to govt



② PFC Energy —  
Touren Wucherphennig



**Gaffney, Cline & Associates Inc.**

Technical and Management Advisers to the Petroleum Industry Internationally Since 1962

Principals  
William B. Cline  
Peter D. Gaffney

Four Oaks Place  
1360 Post Oak Boulevard, Suite 2300  
Houston, Texas 77066

Telephone: (713) 850-9955  
Facsimile: (713) 850-9966  
Email: gcah@gaffney-cline.com

RAR/jlm/C1492.00/gcah.300.07

October 16, 2007

*Presented 10-20-2007  
@ SRES hearing, SB2007*

## MEMORANDUM

### RE: Oil Company Capital Spending

Oil companies are by definition in business to make a profit. Their actions are aimed at removing or preventing any barriers to achieving increased profits. Taxes are a barrier to achieving profits and when raised serve to reduce profits and when lowered serve to increase profits. Thus, oil companies are naturally predisposed to oppose any increase in taxes. With all things being equal (which they rarely are), oil companies would preferentially invest in areas with the lowest taxes, however this is not the real world calculus.

When materiality and prospectivity are added to the investment decision criteria, oil companies quite often end up investing in countries with relatively high or above average tax rates. They do so because they believe (and often realize) that investments in those countries will provide access to new reserves and will generate significant profits. Similarly, countries that offer extraordinary potential (like Angola, Russia and Kazakhstan) are able to command a greater share of the total pie while, at the other extreme areas which have extremely favorable tax regimes (like Ireland and Morocco) still do not attract significant industry interest.

The oil companies are – rationally – resisting initiatives to increase their effective tax burdens and attempting to boil down the issue of fiscal policy and its impact on their capital investment decision making to a single factor: **the effective tax rate**. But the issue is not that simple. The oil companies must, if they are to remain in existence, do a good job at profitably replacing the reserves that they are currently producing. The number of locales in the world that offer the larger oil companies the needed level of materiality to do that are limited in number. ExxonMobil, BP, Chevron and ConocoPhillips for example, together produce over 12 million barrels of oil equivalent per day – to simply replace their production they need to find a Kuparuk size accumulation every 8 to 9 months!

The oil companies have compared Alaska's tax regime to mainly other lower 48 United States tax regimes; however, such a comparison would only be valid for a small portion of their overall investment capital spending. Lehman recently published a survey of 350 companies that showed estimated total worldwide capital spending in 2007 of just over US\$300 billion of which roughly one quarter or US\$77 billion would be in the United States (including Alaska). Overall, 2007 numbers represented over a 20% increase for international (i.e. non-US or Canada) spending with United States spending up slightly and Canadian spending down.

Looking at just the United States, expected 2007 spending represents an increase of 4.8% over 2006. A further breakdown of the numbers by Lehman shows that smaller

RAR/jlm/C1492.00/gcah.300.07

## MEMORANDUM

October 16, 2007

Page 2

companies (those with annual spending under US\$1 billion) were estimating increasing their spending by some 10+% for 2007 while the large oil companies were only expecting spending in the United States to increase 1.2%.

The Lehman data seem to be corroborated by data in the oil companies' annual reports. Gaffney, Cline & Associates reviewed annual reports for BP, Chevron, ConocoPhillips and ExxonMobil for 2002 through 2006. Where available, capital spending data overall and in the United States for the upstream sector were used. Where such geographic breakdown was not provided data for corporate spending were used to arrive at the numbers below. The key piece of information is not the absolute value, but the trend of where the main players in Alaska are spending the bulk of their investment dollar. For upstream spending BP's investments outside the United States represented 50% to 75% of their overall total. Similar numbers for Chevron were 67% to 71%, ConocoPhillips 63% to 75% and ExxonMobil 77% to 85%.

		Capital Spending (\$mil)									
		2006		2005		2004		2003		2002	
BP:	US	\$8,592	50%	\$3,870	38%	\$3,913	36%	\$3,808	26%	\$3,100	32%
	International	\$8,528	50%	\$6,387	62%	\$7,095	64%	\$11,288	74%	\$8,559	68%
	TOTAL	\$13,118		\$10,237		\$11,008		\$15,192		\$11,659	
Exxon:	US	\$2,488	15%	\$2,142	15%	\$1,922	16%	\$2,125	18%	\$2,357	23%
	International	\$13,745	85%	\$12,328	85%	\$9,793	84%	\$9,863	82%	\$8,037	77%
	TOTAL	\$16,231		\$14,470		\$11,715		\$11,988		\$10,394	
Conoco:	Alaska	\$820	9%	\$746	11%	\$845	12%	\$570	13%	\$708	22%
	US (Continental)	\$2,008	21%	\$891	13%	\$869	12%	\$848	19%	\$499	15%
	International	\$8,685	70%	\$5,047	76%	\$3,935	75%	\$3,090	68%	\$2,071	63%
	TOTAL	\$11,513		\$6,684		\$5,649		\$4,508		\$3,278	
Chevron:	US	\$4,123	32%	\$2,450	29%	\$1,820	29%	\$1,641	29%	\$1,888	30%
	International	\$8,696	68%	\$5,939	71%	\$4,501	71%	\$4,034	71%	\$4,395	70%
	TOTAL	\$12,819		\$8,389		\$6,321		\$5,675		\$6,283	

Moreover, the review of the annual reports show investment by these four companies in significant projects in jurisdictions that have average and marginal tax rates above those in place or proposed in Alaska.

In deciding where to invest, tax policy is one of the factors considered but is demonstrably not, in and of itself, the controlling factor.

In 8005  
10-20-2007

# Case Studies: Government Competition for Oil & Gas Investment



Dr. Michael Williams  
Ch. Economist D.C.R.  
Rich Ruggiero } Gaffney Cline  
Bob George } Associates

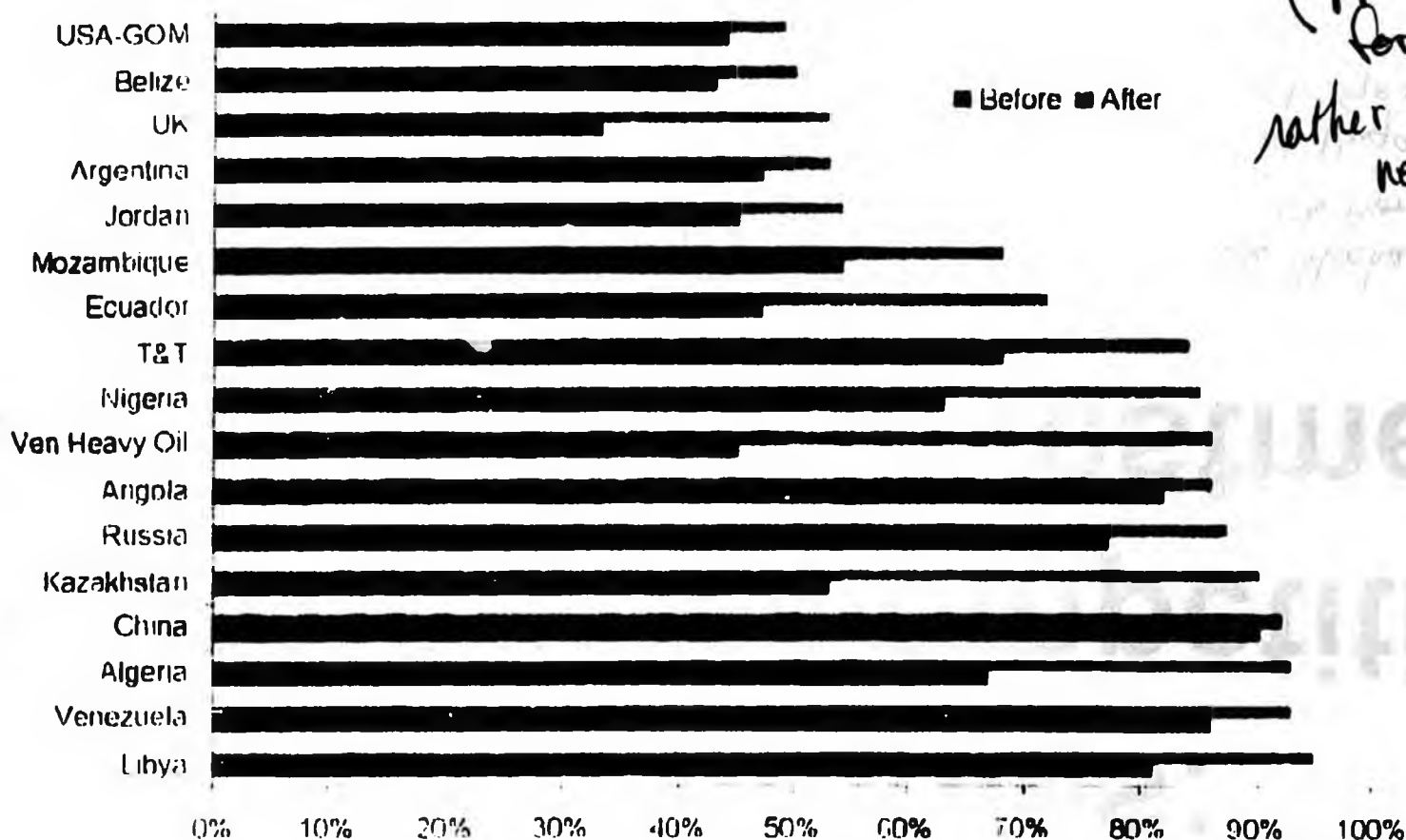
Alaska Department of Revenue,  
October 2007, Juneau, Alaska  
Michael D. Williams, Chief Economist

# Capturing "Fair Share"

Assessment of Oil and Gas Jurisdictions  
is Complex and Continuous



Changes in Government Take 2002 to 2006



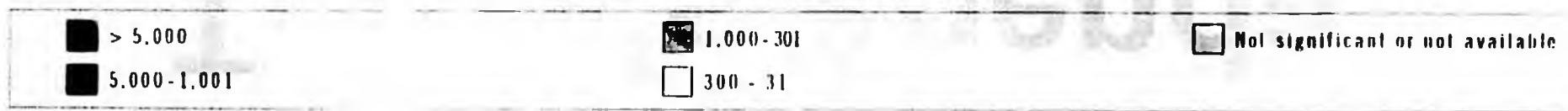
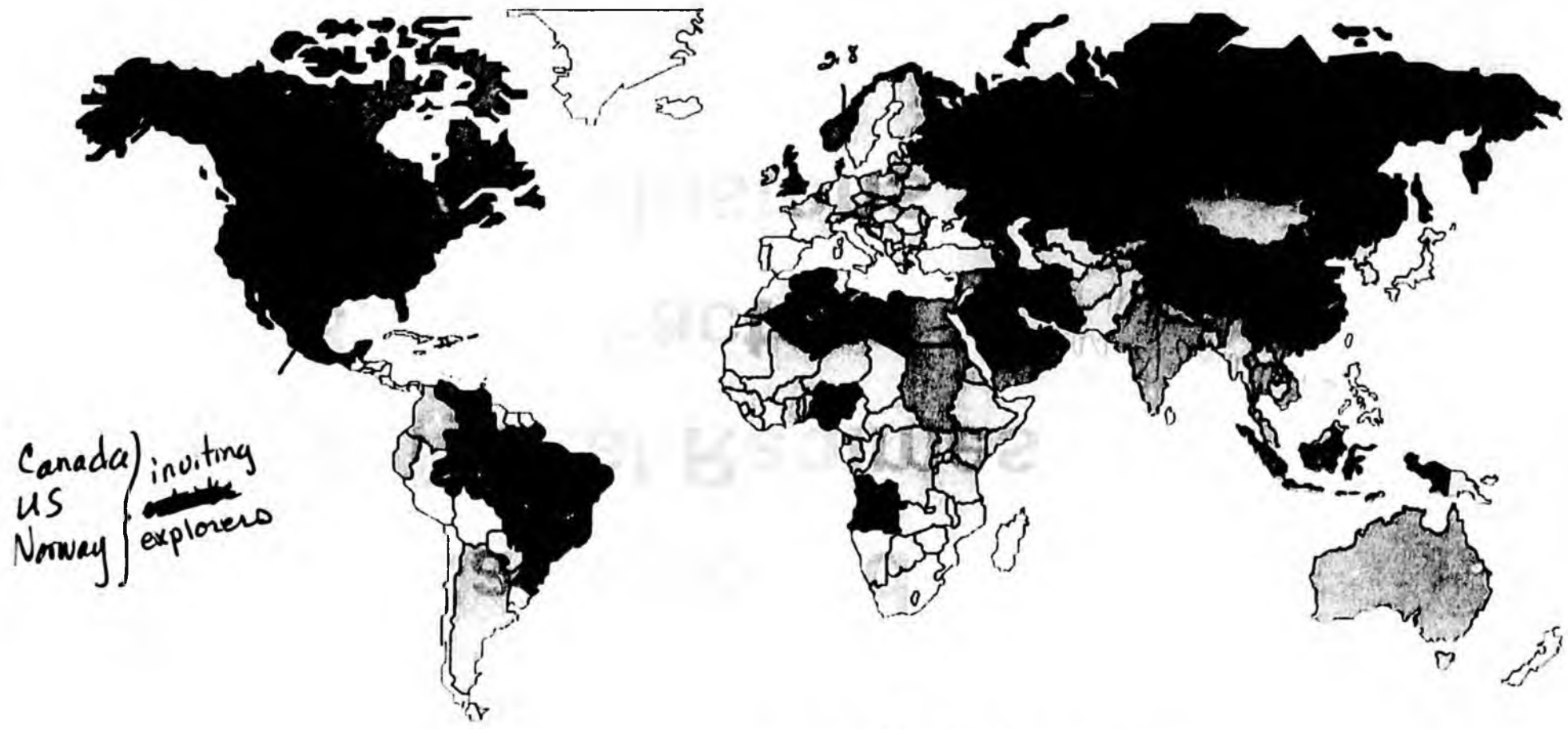
*(Rich Ruggiero appears to be for new development rather than new + existing projects)*

Source: CERA: 2002 vs. 2007

# Today's Agenda

1. Background
2. Fiscal Regimes
3. Key Factors - *6 areas of analysis (per Williams)*
4. Conclusions

# Oil Producing Countries



Source, ENI, World Oil & Gas Review 2007, for 2006, crude oil and NGL's in thousands of barrels per day, page 13.

# Types of Legal Systems

- **Production Sharing** – Uses a Production Sharing Contract [PSC], the contractor receives a share of production for services rendered.
- **Tax / Royalty** – Government licenses right to extract and sell resources and imposes financial obligations on resource extraction:
  - Royalty
  - Tax: on income, production, property.

# **Tax / Royalty Governments Comparison**

- **Alaska**
- **Alberta**
- **Norway**
- **United Kingdom**
- **US Gulf of Mexico [GOM]**

25% of Royalty (gross tax) → Perm Fund

# Alaska

- **Signature Bonus:** Yes
- **Royalty:** about 12.5% *gross value @ pt of production negotiated between state & developer leaseholder*
- **Production Tax:** Petroleum Profits Tax, based on net income *— refers to capital expenditures will give cost of investment plus a percentage*
- **Tax Credits & Uplift:** Yes *↳ not in AK*
- **Property Tax:** Based on assessment *in AK state & local jurisdiction (N. Slope Borough - in unorganized borough \$ goes to SOA)*
- **Corporate Income Tax:**
  - Alaska State = 9.4% of profit
  - US Federal\* = 35% of profit

\* Bonuses, Royalty, Production Tax, Property Tax, and State Corporate Income Tax are deduction from US Federal Income Tax.

# Alberta Conventional Oil

- **Signature Bonus:** Yes
- **Royalty\*:** 14.78% *-(on oil sands 25-30%)*
- **Production Tax:** None
- **Tax Credits & Uplift:** No
- **Property Tax:** None
- **Corporate Income Tax:**
  - Federal = 20% of profit
  - Provincial = 10% of profit

} Additive

\* There are three tiers of royalty based upon the age of the well, those tiers are pre-1974, 1974-1992, and post-1992. The royalty rates are expressed in Canadian dollars per cubic meter and are sensitive to well productivity and market price. This analysis is for oil wells that went into production after 1992 and use the rate of \$130.09 per cubic meter, which is a royalty rate of about 15%. See "Technical Royalty Report OG#2: Alberta's Conventional Oil and Gas Industry", Alberta Department of Energy, 2007, page 14.

# Norway

- **Signature Bonus:** No
- **Royalty:** Phased out
- **Production Tax\*:** 50% of profit
- **Tax Credits & Uplift:** Yes
- **Property Tax:** None
- **Corporate Income Tax\*:** 28% of profit

\* Production Tax and Corporate Income Tax are additive.

# United Kingdom

- **Signature Bonus:** No
- **Royalty:** Discontinued for new fields in 1982 & older fields in 2003
- **Production Tax\*:** Fields developed before March 1993 pay 25%; there is no tax on fields with development approval after March 1993.
- **Tax Credits & Uplift:** No
- **Property Tax:** None
- **Corporate Income Tax:** 50% of profit

\* For fields in operation prior to 1993, the Petroleum Revenue Tax is due and is a tax on net income with detailed specifications for such items as lease costs, acquisition costs, abandonment costs, tariffs, etc. The PRT has a tax rate of 25% and the tax paid is deductible from profits in computing Corporate Income Tax.

# US GOM <sup>Mexico</sup>

- <sup>(Lease)</sup> **Signature Bonus: Yes** <sup>(3.9 million per bid)</sup>  
<sup>last round 3.9 Billion award</sup>  
<sup>prior bonuses were insignificant</sup>
- **Royalty: Royalty relief\*** for deep water
- **Production Tax: None** <sup>(offshore)</sup>
- **Tax Credits & Uplift: Yes**
- **Property Tax: None** <sup>(no state involvement)</sup>
- **Corporate Income Tax: US Federal,**  
**35% of profits**

\* The Deep Water Royalty Relief Act of 1995 expanded the Secretary's royalty relief authority in the GOM outer continental shelf. Under the Act, producers were able to exclude the first 87.5 million barrels of oil production from each lease from royalty when oil prices were under \$34 per barrel. When contracts were actually approved, the price "trigger" was not included in the agreement, thus, the contracts between the oil companies and US government do not specify a price at which the royalty payment is required. On January 9, 2007 the US government royalty rate was increased to 16.7% from 12.5% - but the 87.5 million barrel exclusion still applies, and there is still no price trigger in the contracts.

← significant royalty relief

# Key Factors



- 1. Prospectivity**
- 2. Costs**
- 3. Risk**
  - **Political**
  - **Fiscal Stability**
- 4. Capital Depreciation Time Frame**  
*Speed of recovery of a company*
- 5. Government Take**

# Attractiveness of Oil & Gas Resources

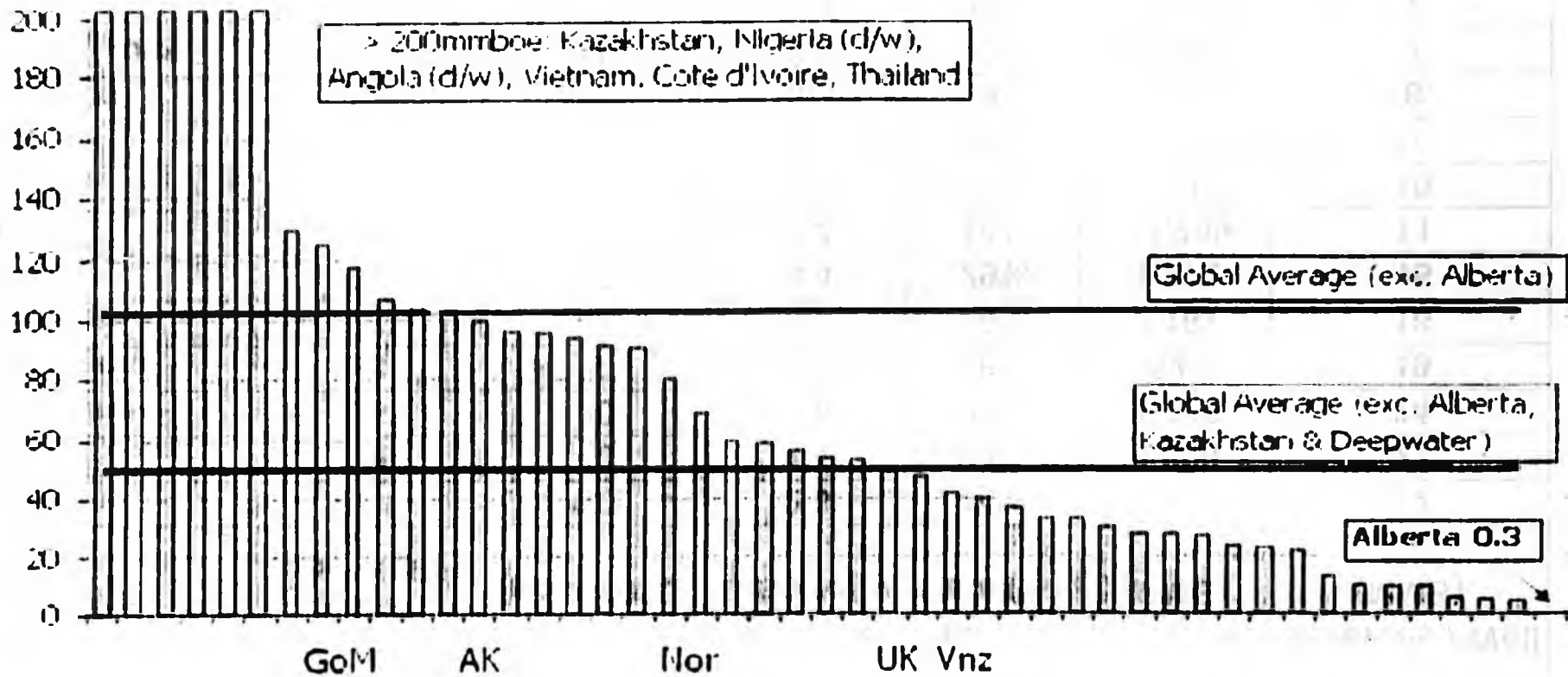
All Exploration & Discoveries Since 1990; Reserves are Reserves Added Since 1990

Country	Exploration Wells (post-1990)	Discoveries (post-1990)	Wells per Discovery	Success Rate (%)	Reserves (MMB)	Reserves / Well (MMB)
Angola	231	102	2.3	44%	14,223	62
Nigeria	315	76	4.1	24%	8,600	27
Eq. Guinea	75	20	3.8	27%	1,776	24
Mauritania	28	5	5.6	18%	522	19
Vietnam	179	42	4.3	24%	3,182	18
Congo	85	25	3.4	29%	1,272	15
Brazil	1,063	143	7.4	14%	11,789	11
Alaska	138	20	6.9	15%	1,415	10
Norway	369	74	5.0	20%	3,754	10
Malaysia	338	64	5.3	19%	2,708	8
Cote d'Ivoire	30	4	7.5	13%	221	7
Libya	319	72	4.4	23%	2,224	7
GOM	1,502	87	17.3	6%	6,200	4
UK	1,177	122	9.6	10%	3,826	3
Gabon	185	26	7.1	14%	472	3
Indonesia	1,200	193	6.2	16%	2,749	2
Argentina	1,110	230	4.8	21%	1,071	1
Australia	1,741	147	11.8	8%	1,600	1

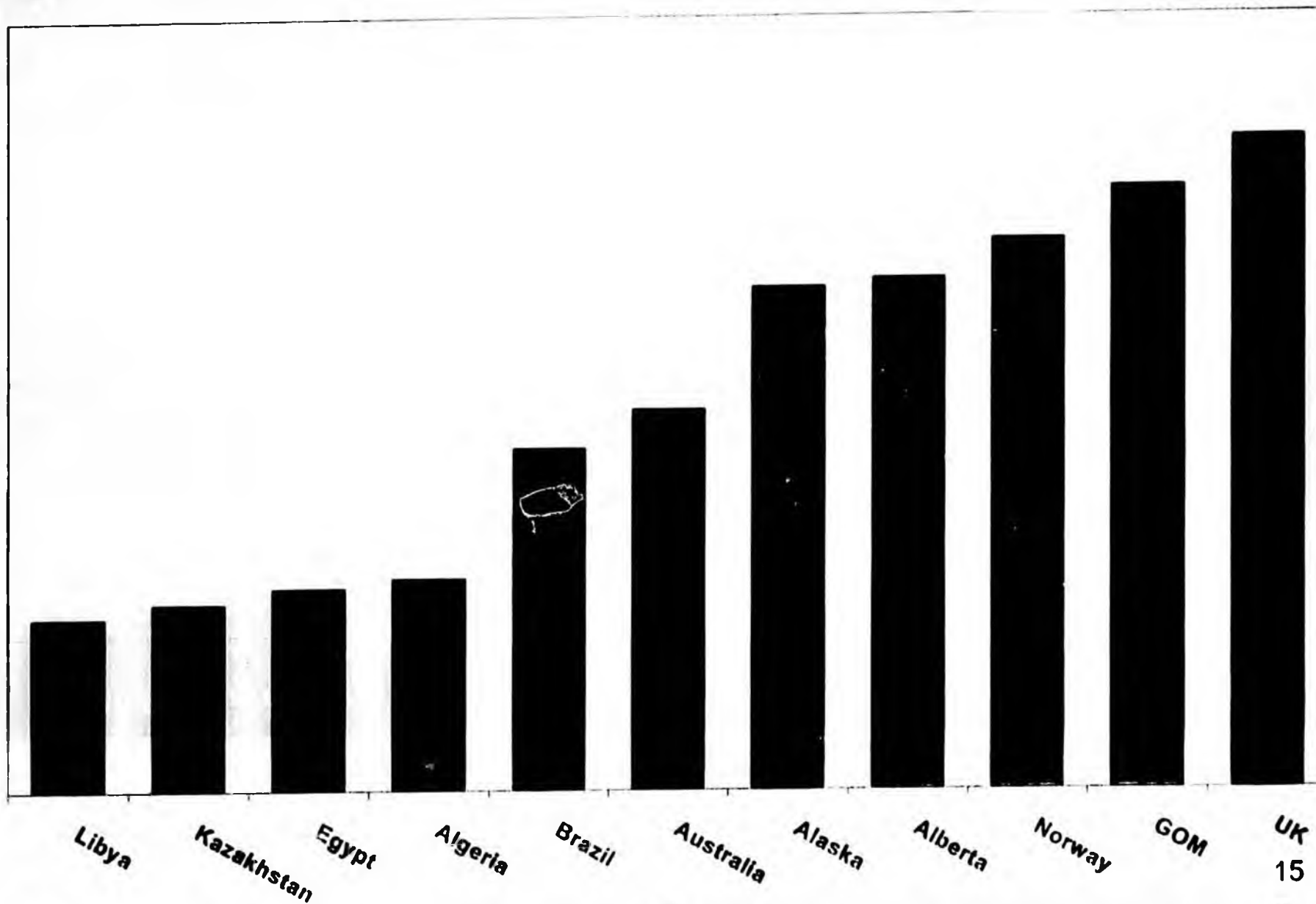
# Conventional Oil Pool Size

## 1994 – 2003

**Average Commercial Oil Discovery Size (mmboe)**



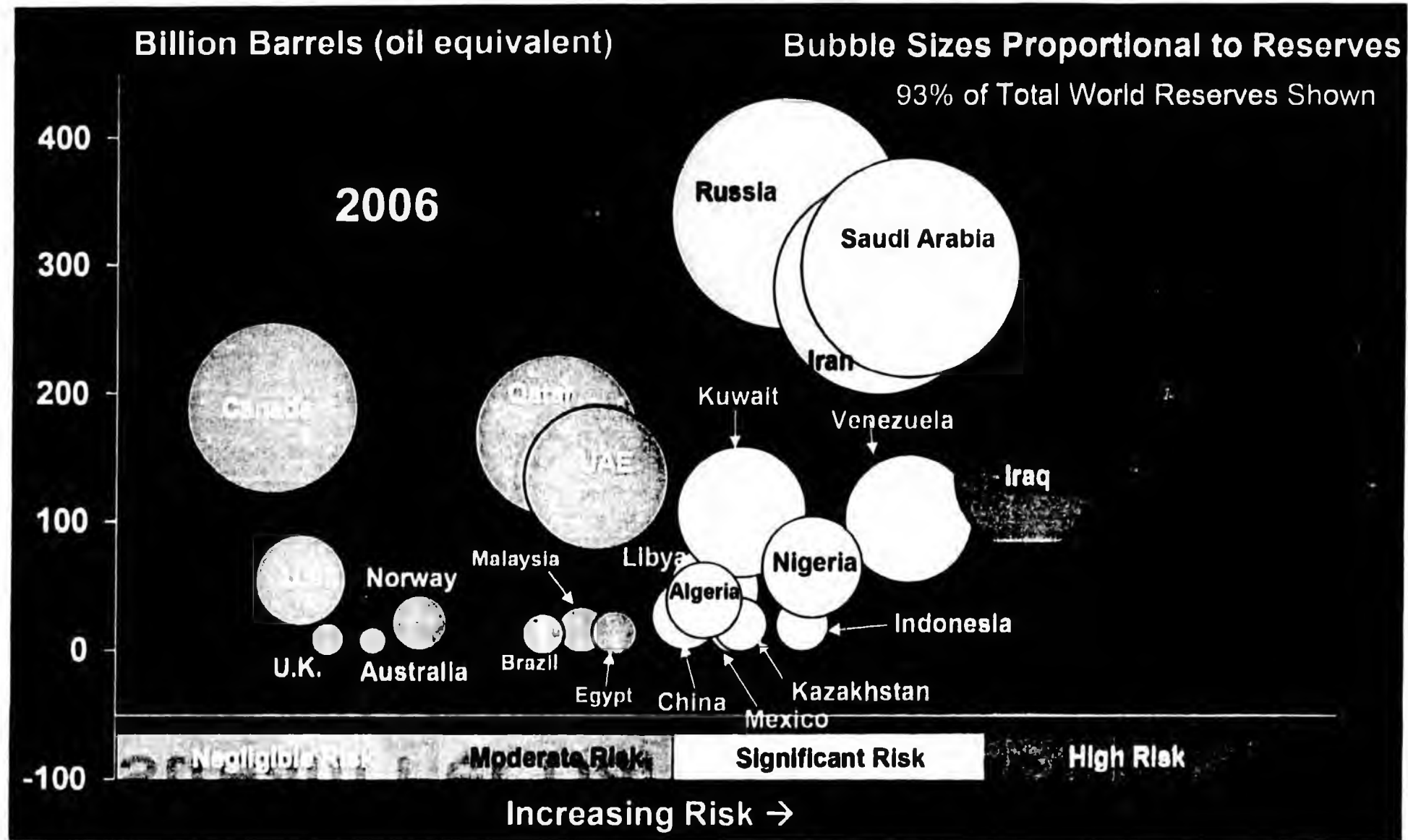
# Upstream Per Barrel Production Cost



Dollars per barrel, includes capital and operating expense, most data from public sources.

# Reserves Breakdown By Risk

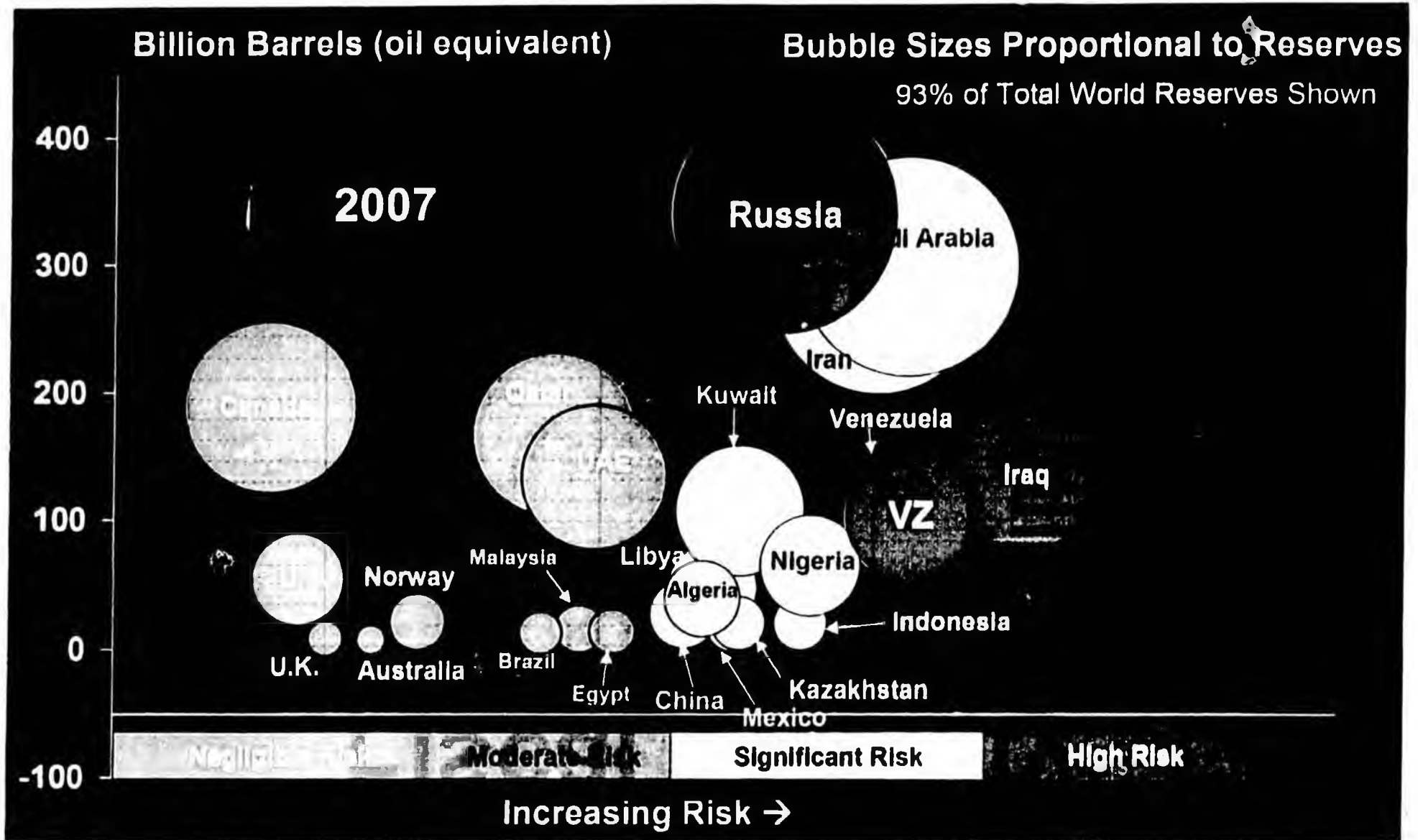
## Total Oil & Gas Reserves



Source: ConocoPhillips, Petroleum Equipment Suppliers Association, April 20, 2006

# Reserves Breakdown By Risk

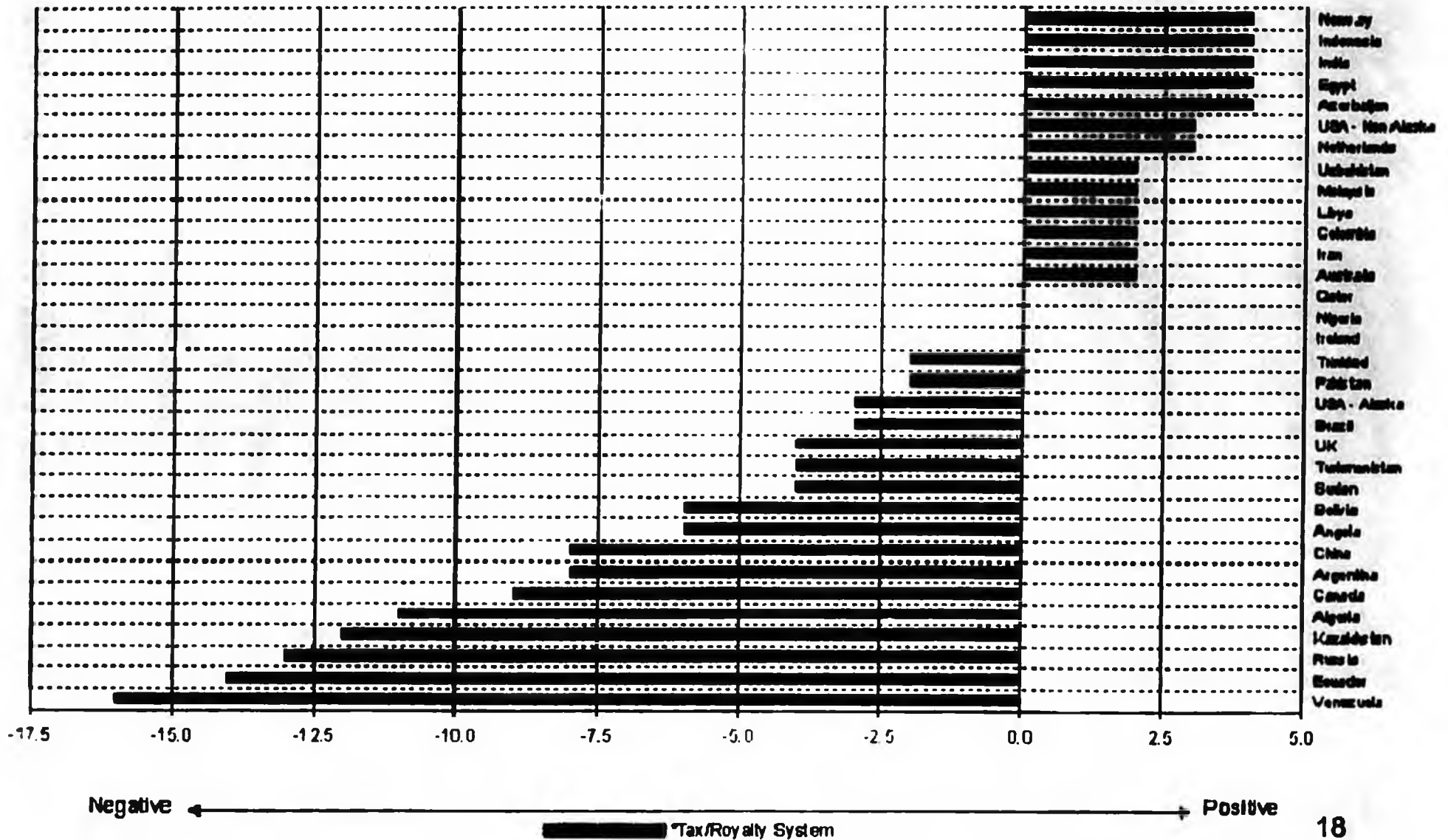
## Total Oil & Gas Reserves



Source: Initial chart from ConocoPhillips, Petroleum Equipment Suppliers Association, April 20, 2006, adjusted by DOR to reflect 2007 events.

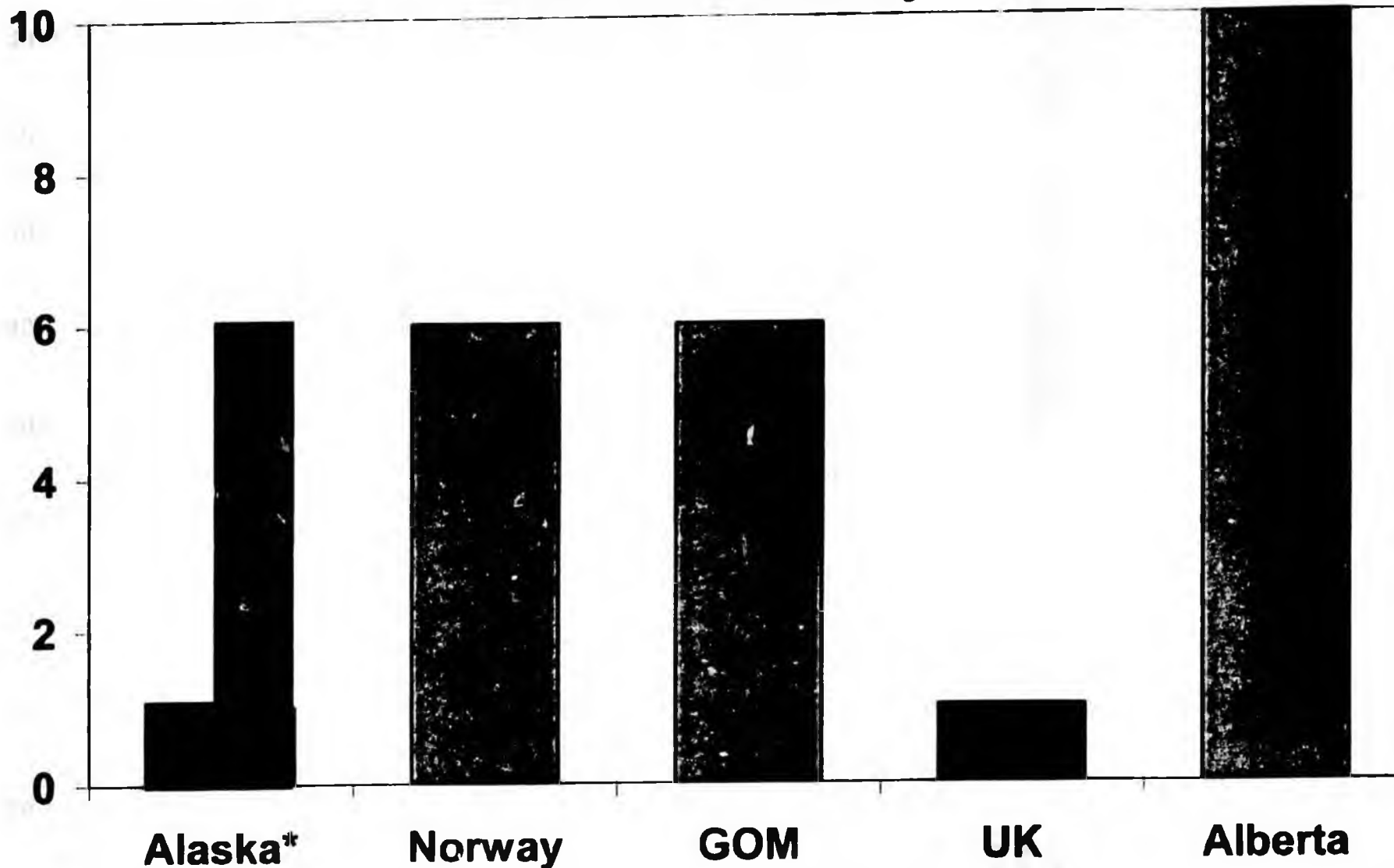
# Fiscal Stability

Cumulative Stability Score



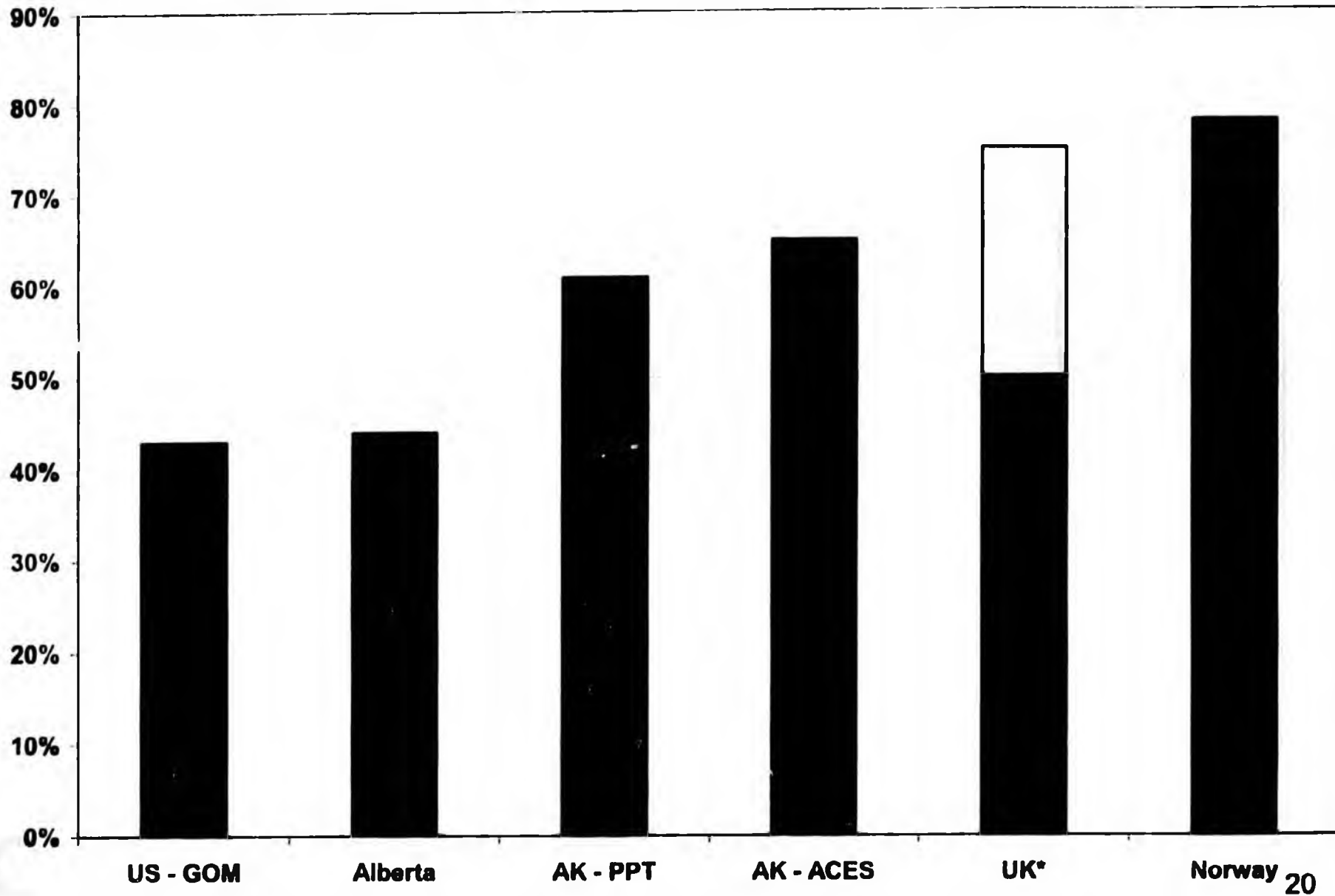
# Capital Depreciation Time Frame

## Years to Recovery



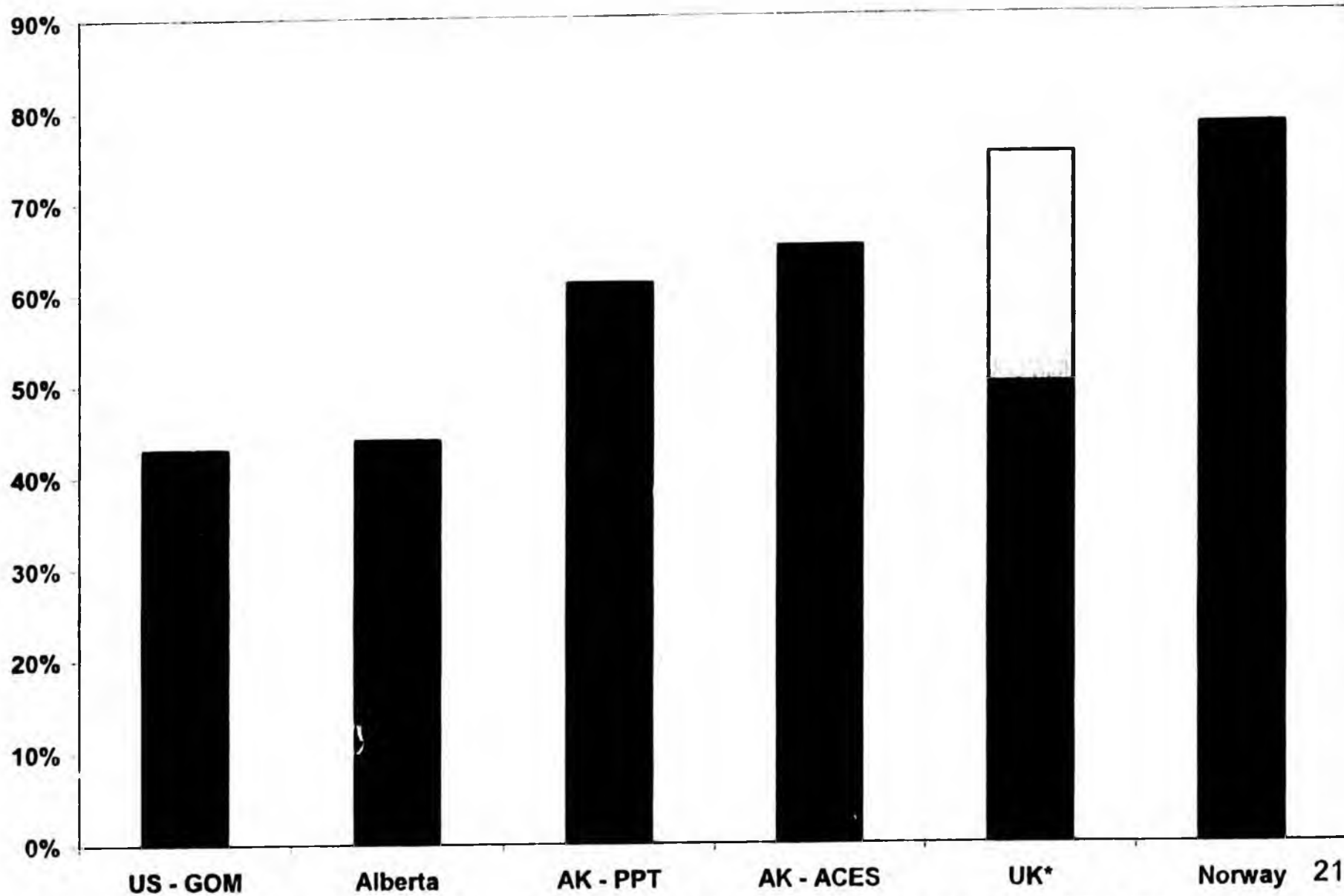
\* Under PPT there is a one year write off, for Federal Corporate Income Taxes there is a depreciation schedule.

# Marginal Government Take



Sources include Alberta Panel Review 2007, Wood Mackenzie 2007, PFC 2007, US General Accounting Office 2007

# Cradle to Grave Government Take



Sources include Alberta Panel Review 2007, Wood Mackenzie 2007, BEC 2007, US General Accounting Office 2007

# Where are the Capital \$s being spent?

		Capital Spending (\$millions)									
		2006		2005		2004		2003		2002	
<b>BP:</b>	<b>US</b>	\$6,592	50%	\$3,870	38%	\$3,913	36%	\$3,906	26%	\$3,100	32%
	<b>International</b>	\$6,526	50%	\$6,367	62%	\$7,095	64%	\$11,288	74%	\$6,559	68%
	<b>TOTAL</b>	<b>\$13,118</b>		<b>\$10,237</b>		<b>\$11,008</b>		<b>\$15,192</b>		<b>\$9,659</b>	
<b>Exxon:</b>	<b>US</b>	\$2,486	15%	\$2,142	15%	\$1,922	16%	\$2,125	18%	\$2,357	23%
	<b>International</b>	\$13,745	85%	\$12,328	85%	\$9,793	84%	\$9,863	82%	\$8,037	77%
	<b>TOTAL</b>	<b>\$16,231</b>		<b>\$14,470</b>		<b>\$11,715</b>		<b>\$11,988</b>		<b>\$10,394</b>	
<b>Conoco:</b>	<b>Alaska</b>	\$820	9%	\$746	11%	\$645	12%	\$570	13%	\$706	22%
	<b>US (Continental)</b>	\$2,008	21%	\$891	13%	\$669	12%	\$848	19%	\$499	15%
	<b>International</b>	\$6,685	70%	\$5,047	76%	\$3,935	75%	\$3,090	68%	\$2,071	63%
	<b>TOTAL</b>	<b>\$9,513</b>		<b>\$6,684</b>		<b>\$5,249</b>		<b>\$4,508</b>		<b>\$3,276</b>	
<b>Chevron:</b>	<b>US</b>	\$4,123	32%	\$2,450	29%	\$1,820	29%	\$1,641	29%	\$1,888	30%
	<b>International</b>	\$8,696	68%	\$5,939	71%	\$4,501	71%	\$4,034	71%	\$4,395	70%
	<b>TOTAL</b>	<b>\$12,819</b>		<b>\$8,389</b>		<b>\$6,321</b>		<b>\$5,675</b>		<b>\$6,283</b>	

# Mentioned in 2006 Reporting Exploration and Development

- **BP**
  - Algeria, Angola, Australia, Azerbaijan, China, Egypt, Indonesia, Russia and Trinidad & Tobago
- **Chevron**
  - Angola, Australia, Brazil, Canada, Indonesia, Kazakhstan, Nigeria, Norway, the Partitioned Neutral Zone, Thailand, UK, and Trinidad/Venezuela.
- **ConocoPhillips**
  - Australia, Canada, China, Indonesia, Kazakhstan, Libya, Malaysia, Peru, Qatar, Russia, UK, Vietnam, and Venezuela
- **XOM**
  - Australia, Canada, Indonesia, Ireland Venezuela, Norway, Philippines, Qatar, and UAE

# Conclusions

## 1. Alaska is Competitive

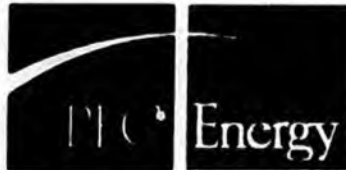
- Peer Group
- Worldwide

## 2. Possible to Increase Government Take & Remain Competitive

# Government Take Comparison

Prepared for the Department of Revenue, State of Alaska  
Torsten Wucherpfennig, Manager Asset Valuation, PFC Energy

20 October 2007



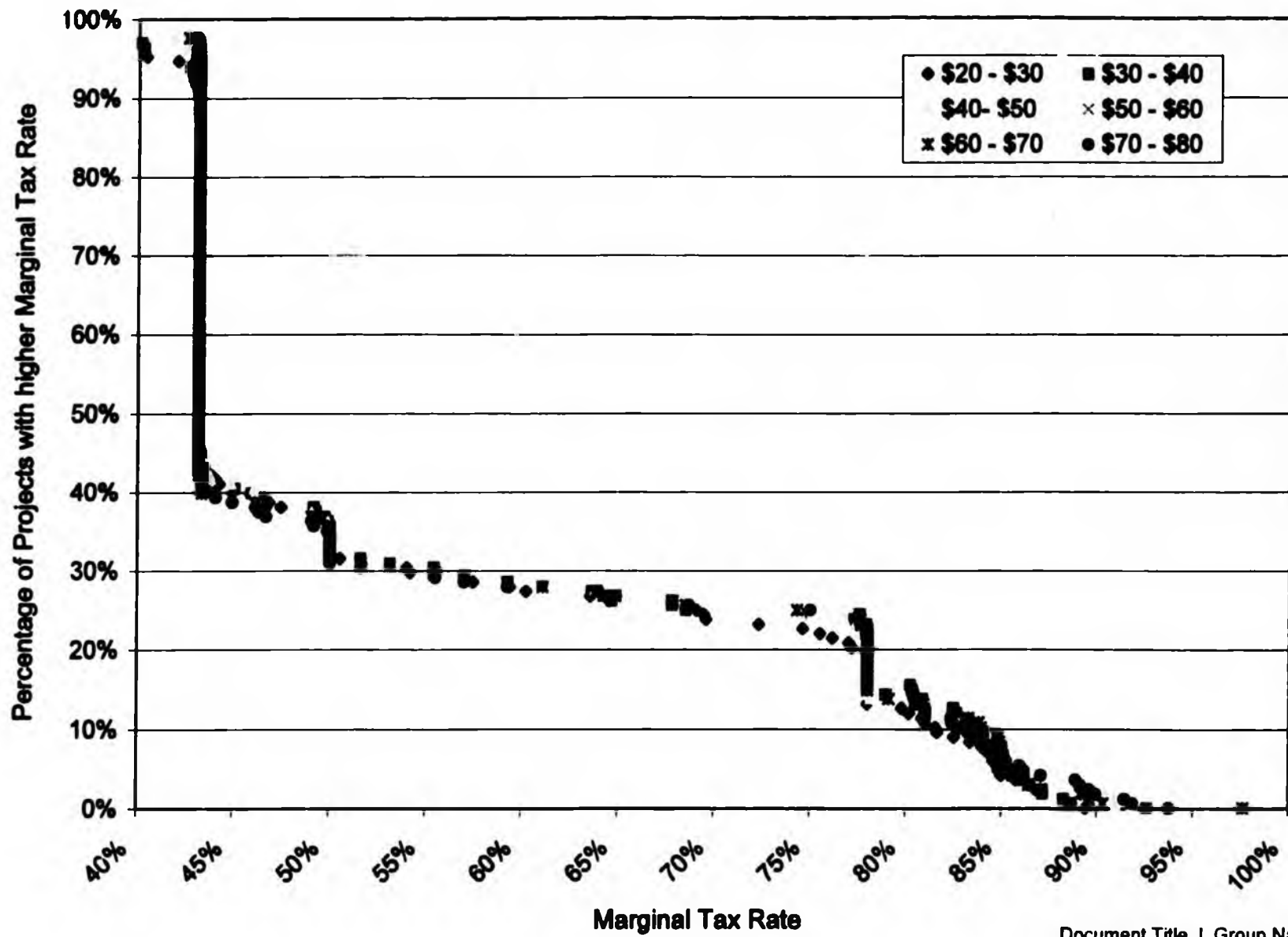


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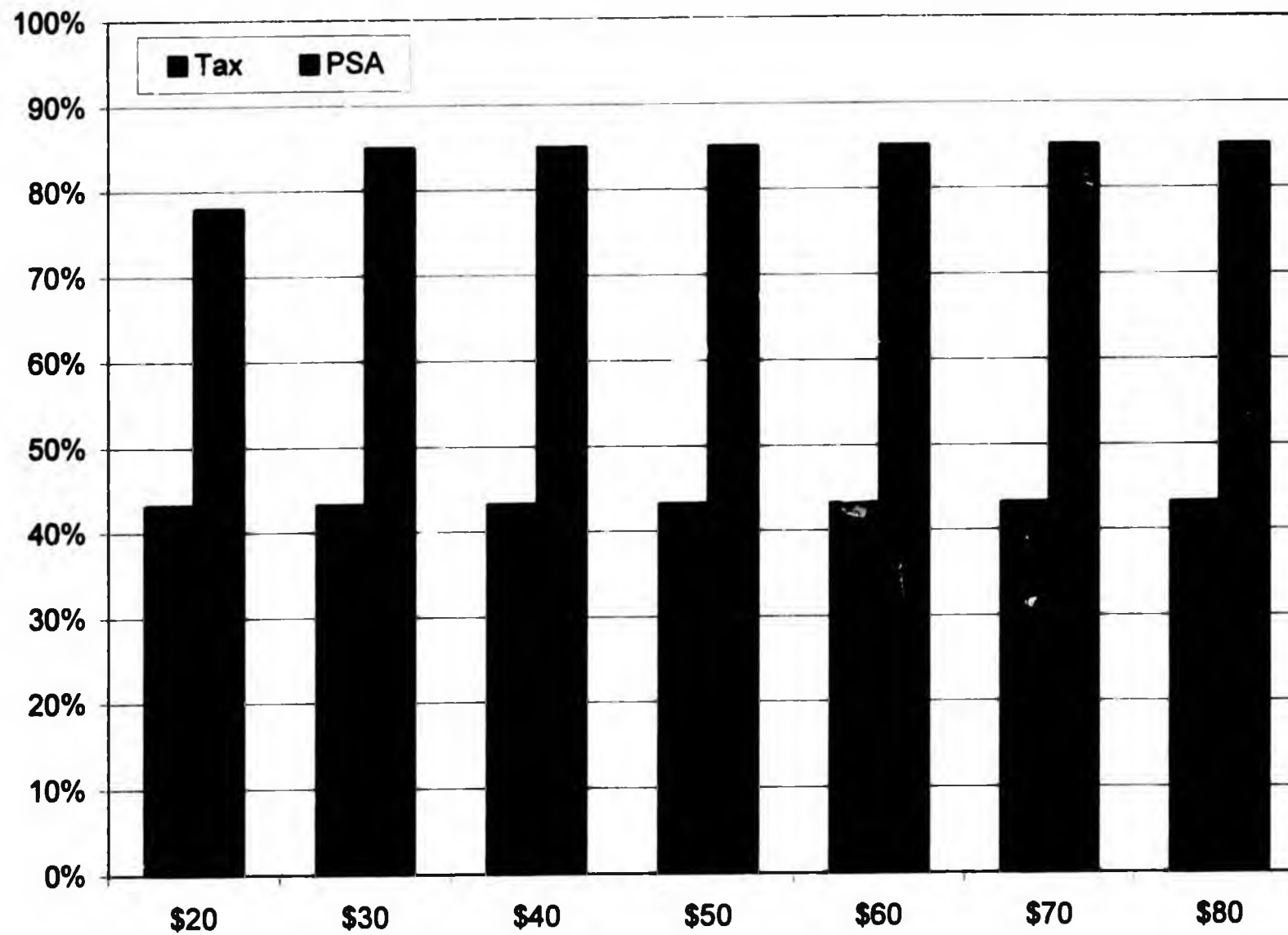
# **Government Take**

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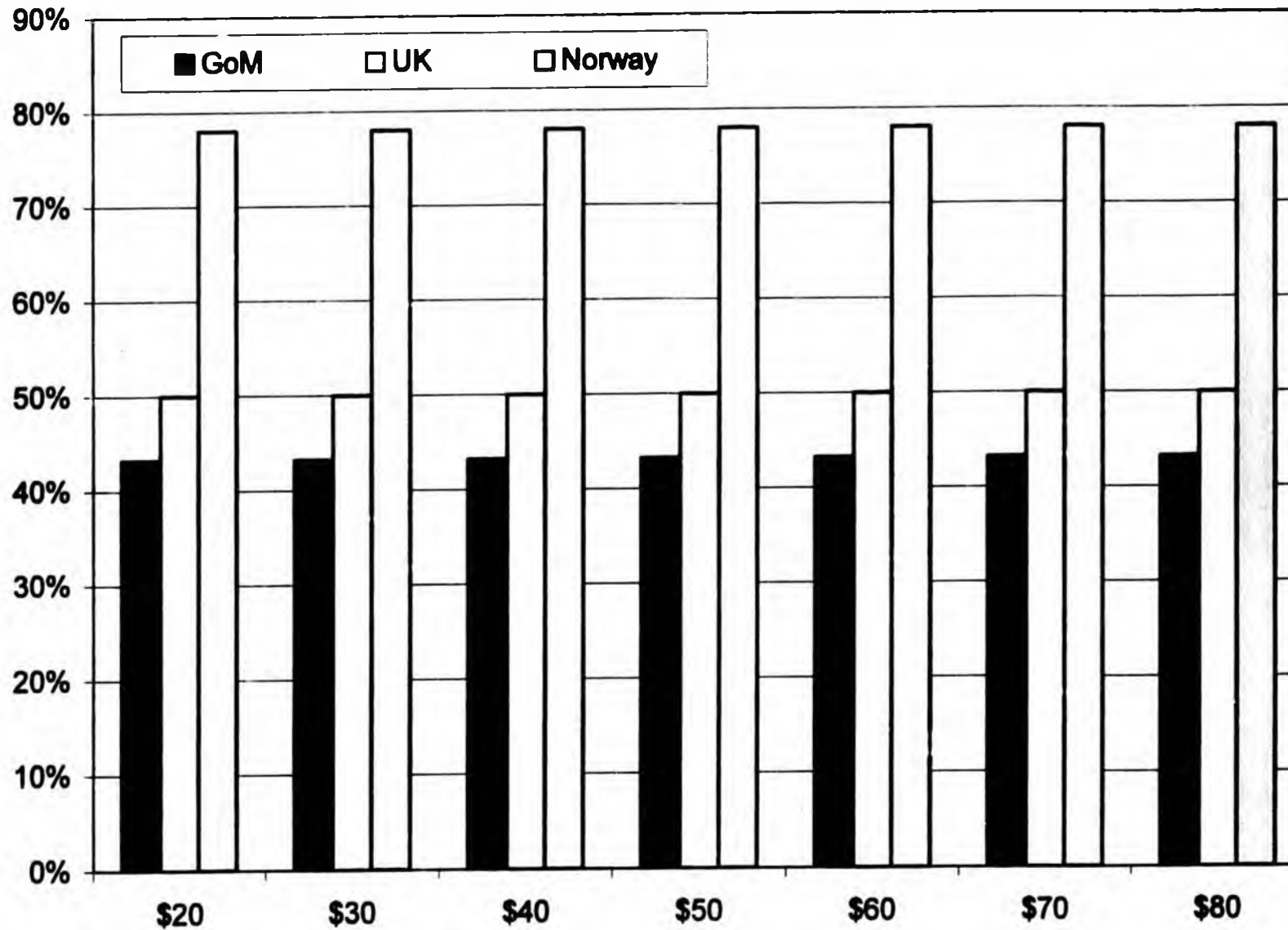
# Distribution Marginal Tax Rate of 190 fields (All Projects)



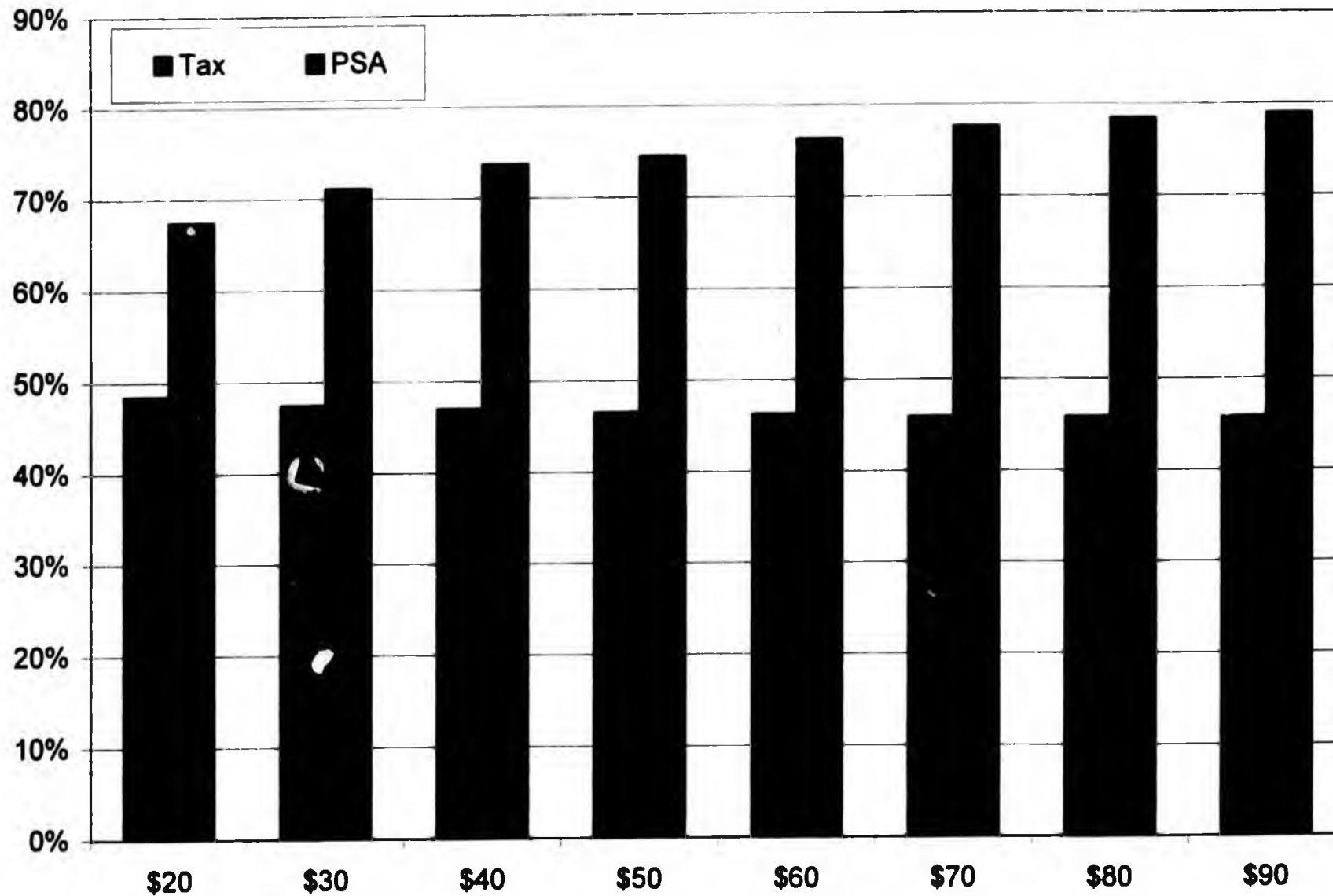
# Median Marginal Tax Rate in Year 10 (by fiscal structure)



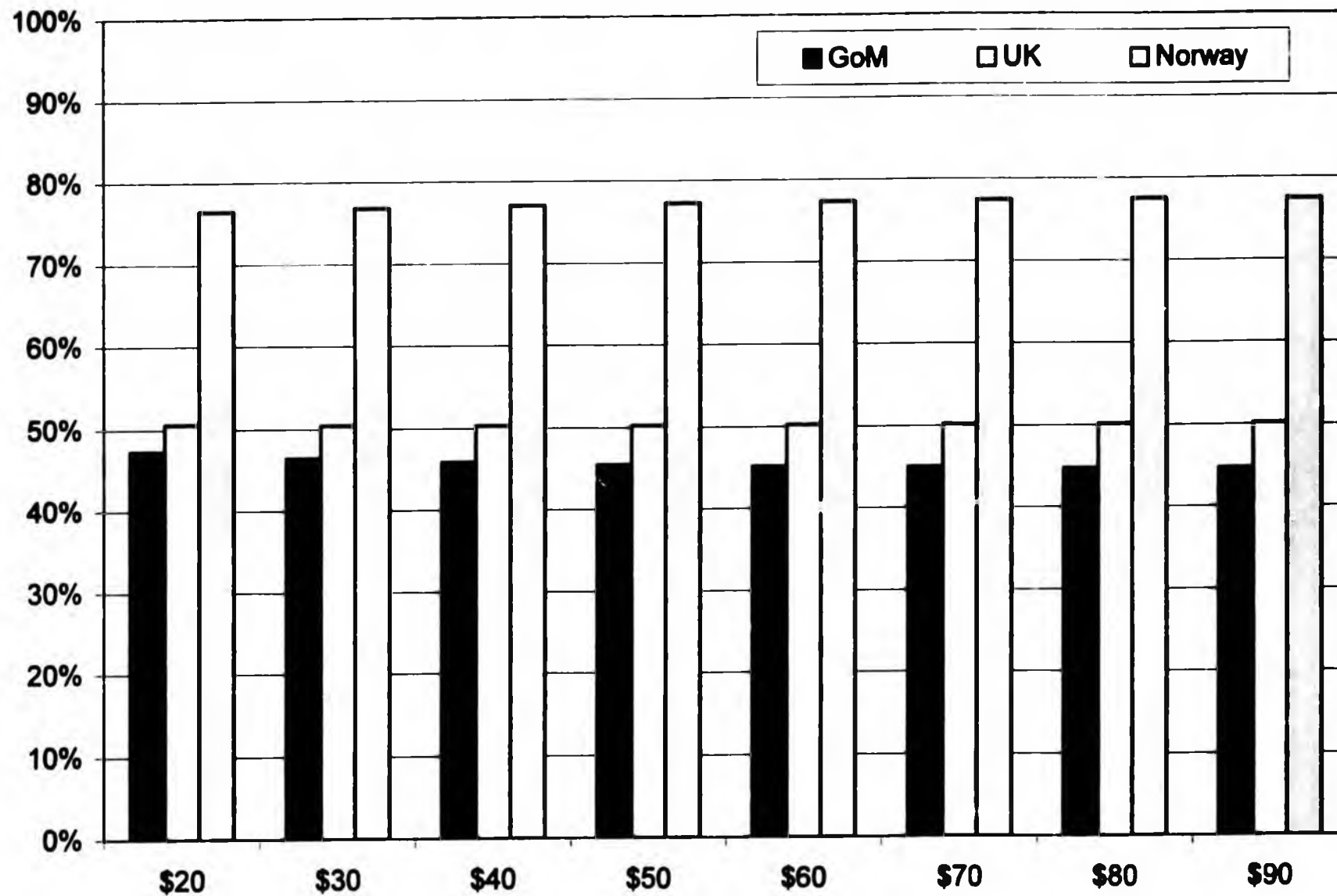
# Median Marginal Tax Rate in Year 10 (by country)



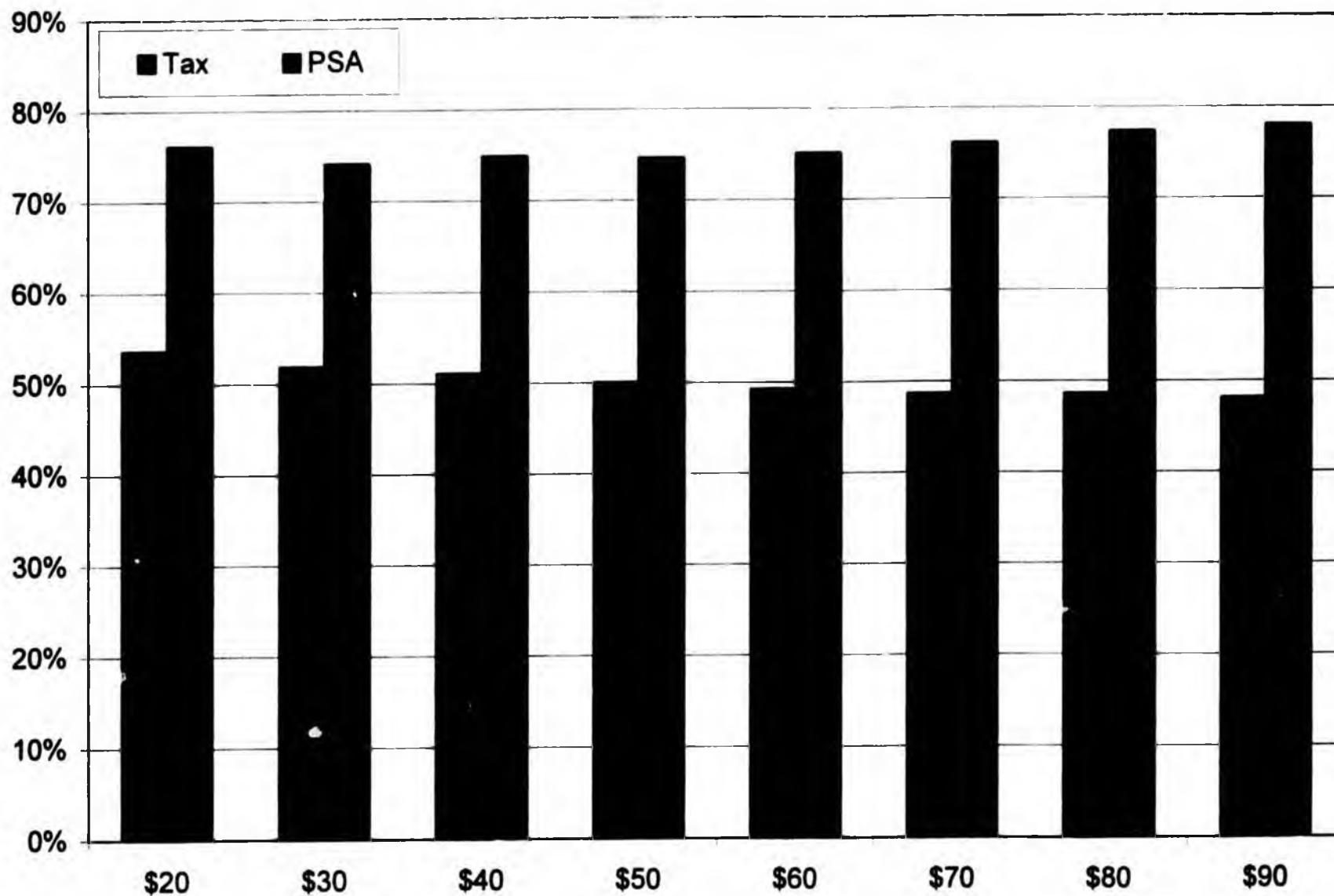
# Median Undiscounted Government Take in Economic Rent (by fiscal structure)



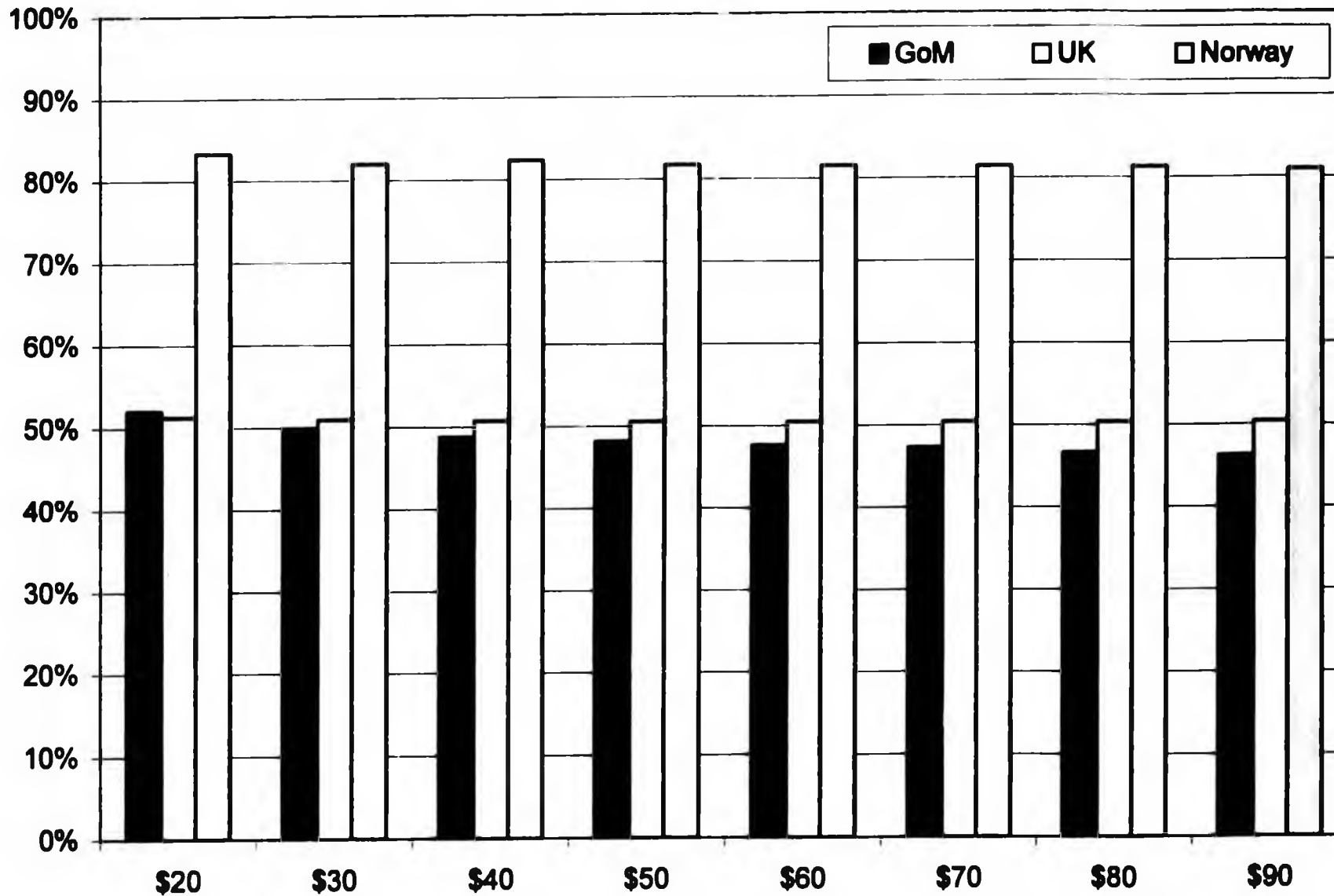
# Median Undiscounted Government Take in Economic Rent (by country)



# Median Discounted (10%) Government Take in Economic Rent (by fiscal structure)



# Median Discounted (10%) Government Take in Economic Rent (by country)





## Strategic Advisors in Global Energy

**PFC Energy consultants are present in the following locations:**

- ▶ **Bahrain**
- ▶ **Beijing**
- ▶ **Buenos Aires**
- ▶ **Calgary**
- ▶ **Houston**
- ▶ **Kuala Lumpur**
- ▶ **Lausanne**
- ▶ **London**
- ▶ **Mumbai**
- ▶ **New York**
- ▶ **Paris**
- ▶ **San Francisco**
- ▶ **Washington, D.C.**

*Main regional offices are shown in blue.*

### **Main regional offices:**

#### **Asia**

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50250 Kuala Lumpur, Malaysia  
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Fax (60 3) 2072-3599

#### **Europe**

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75008 Paris, France  
Tel (33 1) 4770-2900  
Fax (33 1) 4770-5905

**PFC Energy International, Lausanne**  
19, Boulevard de la Forêt  
1009 Pully, Switzerland  
Tel (41 21) 721-1440  
Fax: (41 21) 721-1444

#### **Middle East**

**PFC Energy, Bahrain**  
Manama Center  
Entrance 4 - Office 705  
Kingdom of Bahrain  
Tel (973) 1721-5106  
Fax (973) 1721-5108

#### **North America**

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The Palin-Parnell Administration presents

# PARCIES

Alaska's Clear and Equitable Share

Last Updated: 10-29-07

Saturdays 10-30-07

# ACES

Alaska's Clear and Equitable Share

## ANS West Coast Price

- (minus Shipping/TAPS)

= Gross Value at the Point of Production

- (minus upstream capital costs [less 30 cents/bbl])

- (minus upstream operating costs)

= Net Income

	PPT	ACES	\$ DFNC
<b>Base Tax Rate on Net Income</b>	<b>22.5%</b>	<b>25.0%</b>	<b>\$0.2 B</b>
<b>Plus Progressivity Surcharge:</b>			
Per Barrel Net Income "Kicker"	<b>\$40</b>	<b>\$30</b>	<b>\$0.2 B</b>
Surcharge Rate applied to Net Income	<b>0.25% / \$</b>	<b>0.20% / \$</b>	
<b>(Minus Credits)</b>			
- (Capital (023a) [20%])	Yes	Yes	
- (NOL (023b))	Yes	Yes	
- (Transition [TIE] (023i))	Yes	No	<b>\$0.2 B</b>
- (Small Producer (024) [\$12mm])	Yes	Yes	
- (Exploration (025))	Yes	Yes	
<b>= Tax Payment</b>	<b>\$1.4 B</b>	<b>\$2.0 B</b>	<b>\$0.6 B</b>

**FLOOR**

**ACES**

Alaska's Clear and Equitable Share

**PPT - HIGHER OF:**

PPT Net Tax Payment

vs.

4% of Gross Income  
(If ANS West Coast above \$25/bbl)

**ACES**

**FOR EACH UNIT WITH CUMULATIVE PRODUCTION OVER ONE BILLION BARRELS  
AND DAILY PRODUCTION OVER 100,000 BARRELS PER DAY  
PAYMENT IS HIGHER OF:**

ACES Net Tax Payment

vs.

10% of Gross

**ACES**

Alaska's Clear and Equitable Share

# Measuring Government Fair Share: New Fields and Legacy Fields

## Principles



- Fair share to government is an objective of fiscal systems (from the perspective of government)
- Based on international competitive opportunities commensurate with risk: make Alaska an attractive place to invest
- Needs to be an objective measurement of fair share that is systematically comparable
- The pattern of development is a) first comes investment, then b) returns are realized in subsequent years
- Measurement needs to recognize that investment decisions are based on forward-looking economics
- New fields are different from legacy fields

## **New Fields**

# **ACES**

Alaska's Clear and Equitable Share

- All costs are prospective
- Look at “take”
  - Take is a life-cycle concept
  - Percentage of economic rent going to government
  - Economic rent is gross revenues less costs (before taxes)
  - Discounting recognizes cost of capital – timing of take matters

- Many costs have already been incurred
- Measurements that look at cash flow in a single year can be deceptive as:
  - Large costs are often incurred in discreet time-frames (lumpiness)
  - Returns are realized after these investments
  - A single year cannot depict the economic picture
  - Systematic international comparisons for a particular year are meaningless

## Legacy Fields: Marginal Tax Rate



- Look at share of the incremental dollar going to government (marginal tax rate [MTR])
  - Derived by looking at total per barrel government revenues at one price, and then increasing the price by one dollar
  - The difference in per barrel government revenues (from that at the lower price) is the marginal tax rate
  - Increasing the price by one dollar has no effect on costs
  - Cost issues are minimized
  - Limitations of annual “share” data

## **Alaska and its Competitors**



- **Governments use two major methods to take their fair share**
- **Royalty & Production Taxes**
  - Developed nations
  - Stable democratic governments
  - Diverse economies
- **Production Sharing Contracts (PSC)**
  - Developing nations
  - Less stable governments – fiscal system administered by contract
  - Oil centered economies – better geology
- **Alaska should be compared with tax/royalty jurisdictions**
  - UK, Norway, Gulf of Mexico, Alberta, Canada
  - Under PPT & ACES, Alaska government take & MTR is between UK and Norway

## **Fundamental Changes from Past Efforts**

# **ACES**

Alaska's Clear and Equitable Share

- **Data base**
  - More exhaustive inventory of international jurisdictions (PFC effort)
  - Real projects (PFC effort)
  - Internal Schlumberger PEEP model with detailed fiscal systems – real projects analyzed
- **Two fundamental changes to approach**
  - Differences between legacy and new fields
  - Comparison to relevant competition

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# Government and Petroleum Tax Take

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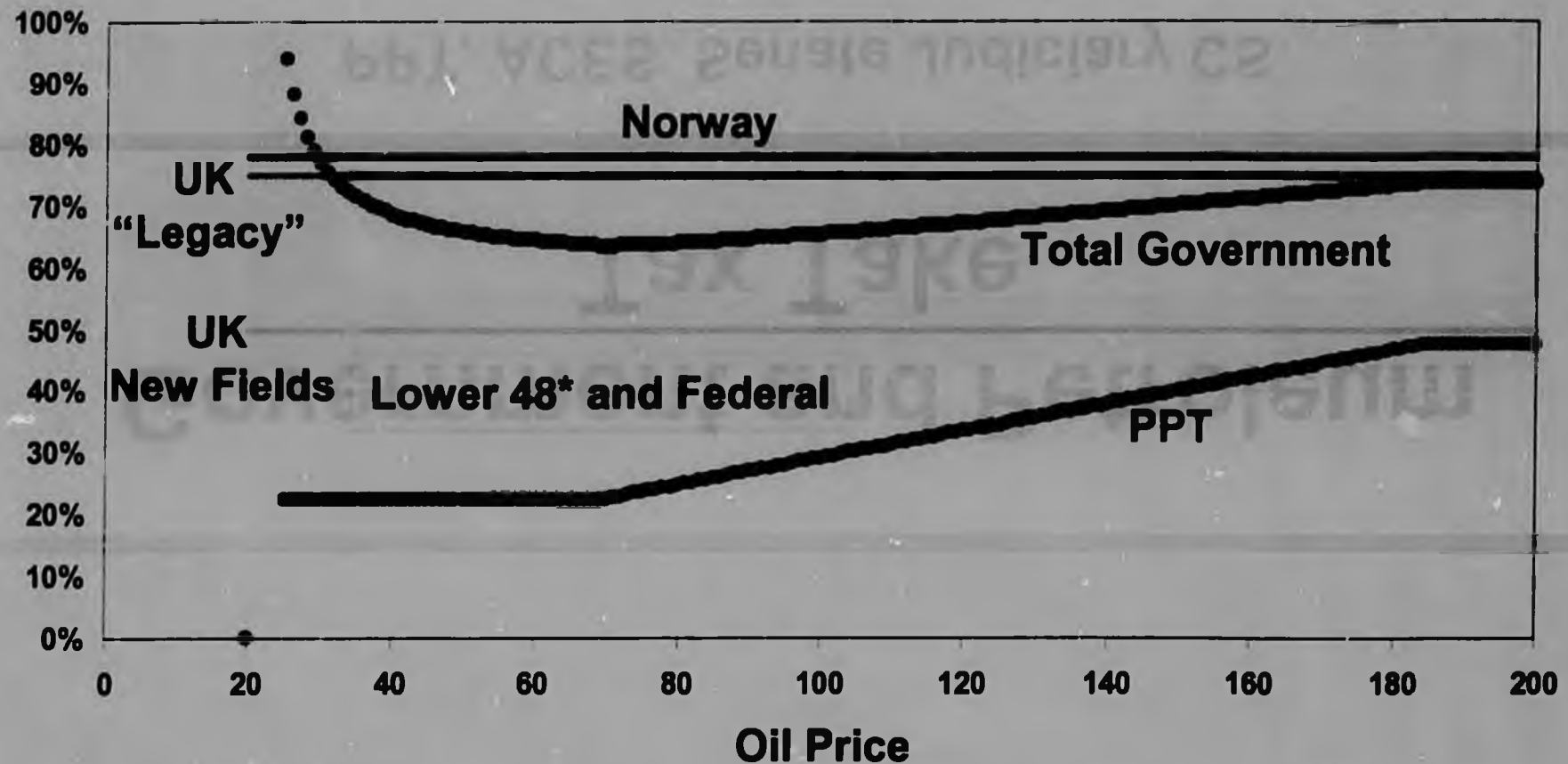
**PPT, ACES, Senate Judiciary CS  
Compared To UK, Norway, US Lower 48**



# Government Take PPT



\* For Lower 48, State lands / Federal assumes with 12.5% - 18.75% royalty. Private royalty trend is higher

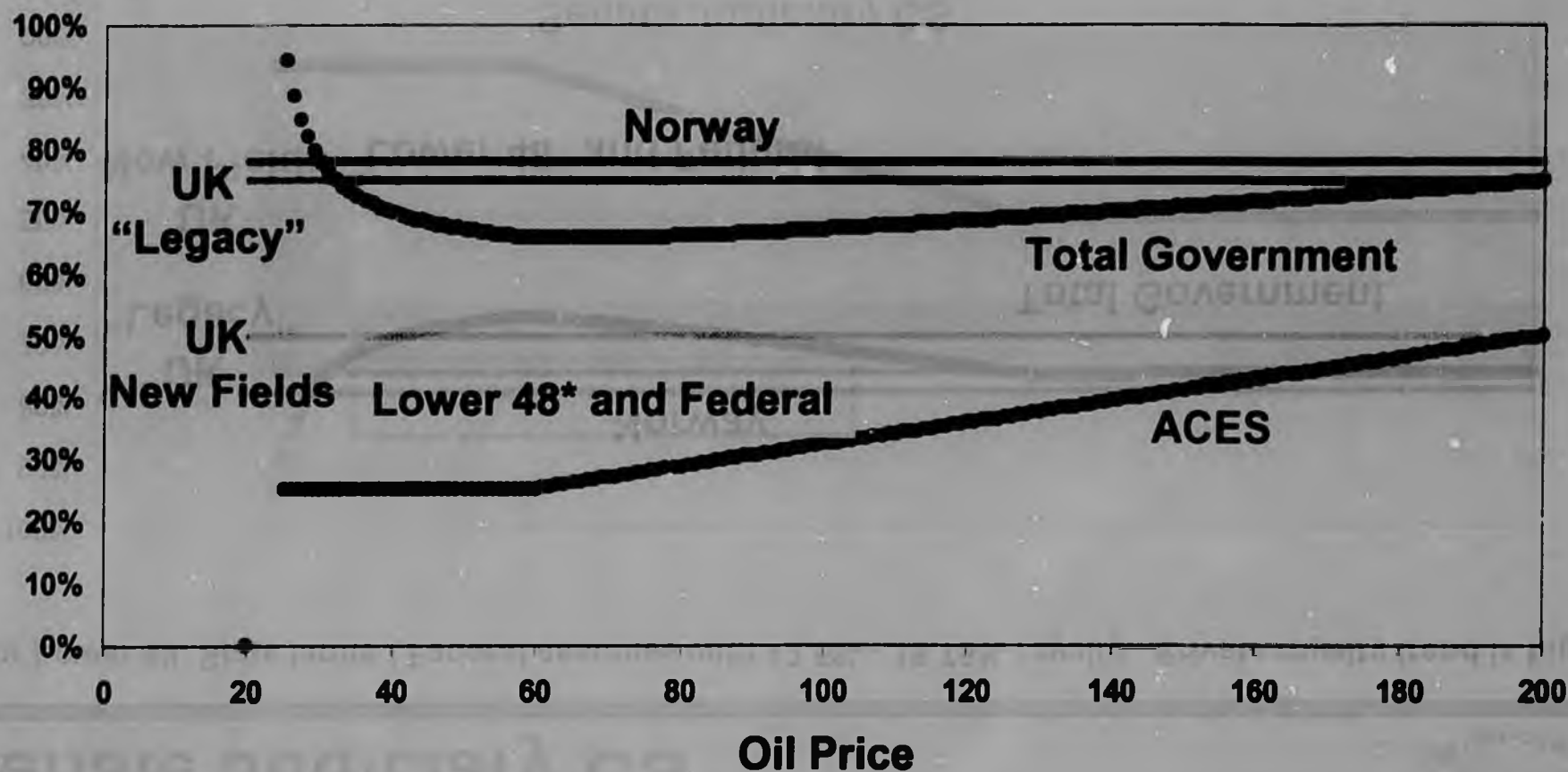


Assumes \$20 costs

# Government Take SB 2001 (ACES)



\* For Lower 48, State lands / Federal assumes with 12.5% - 18.75% royalty. Private royalty trend is higher

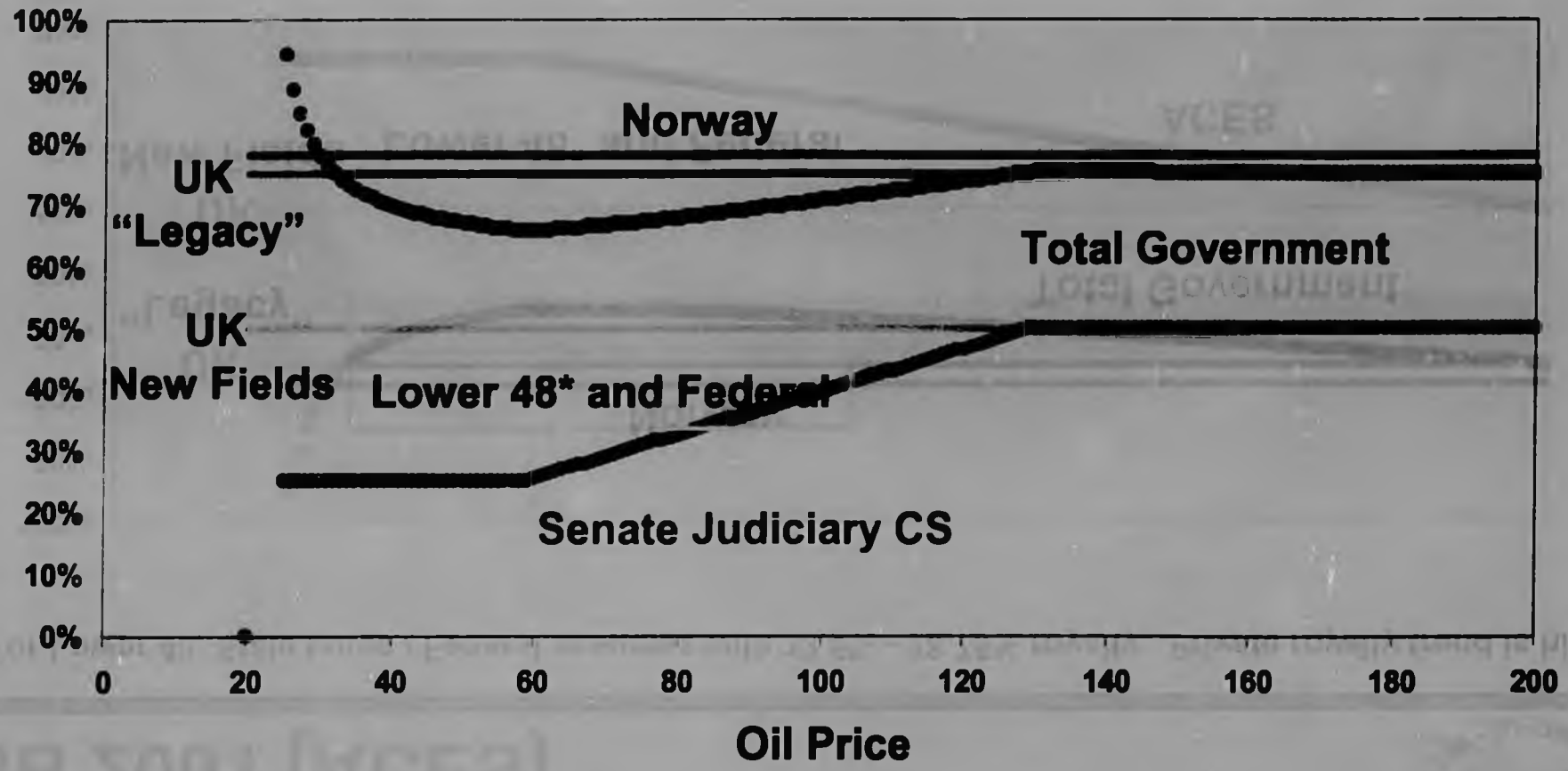


Assumes \$20 costs

# Government Take Senate Judiciary CS



\* For Lower 48, State lands / Federal assumes with 12.5% - 18.75% royalty. Private royalty trend is higher

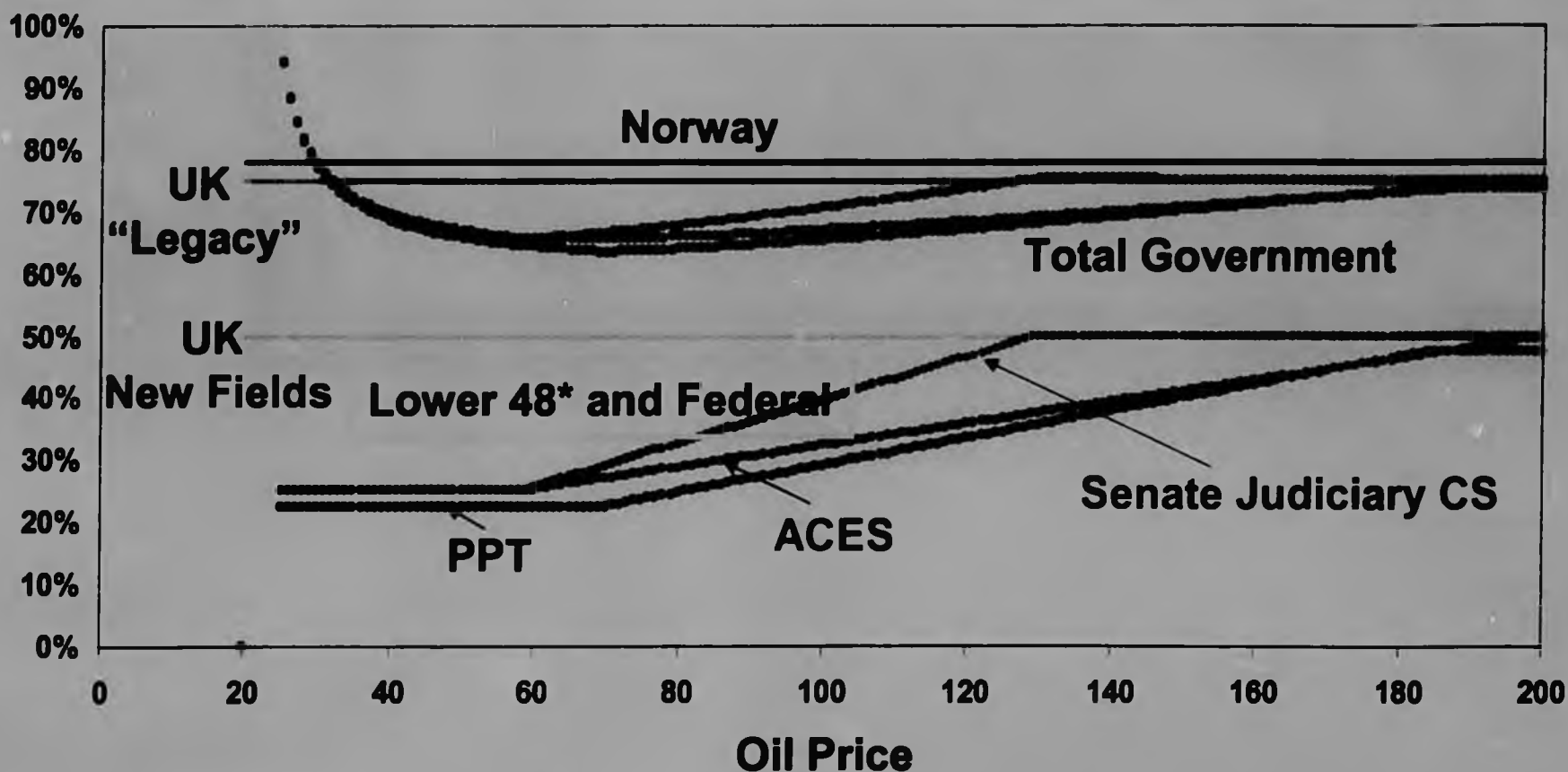


Assumes \$20 costs

# Government Take Senate Judiciary CS



\* For Lower 48, State lands / Federal assumes with 12.5% - 18.75% royalty. Private royalty trend is higher



Assumes \$20 costs