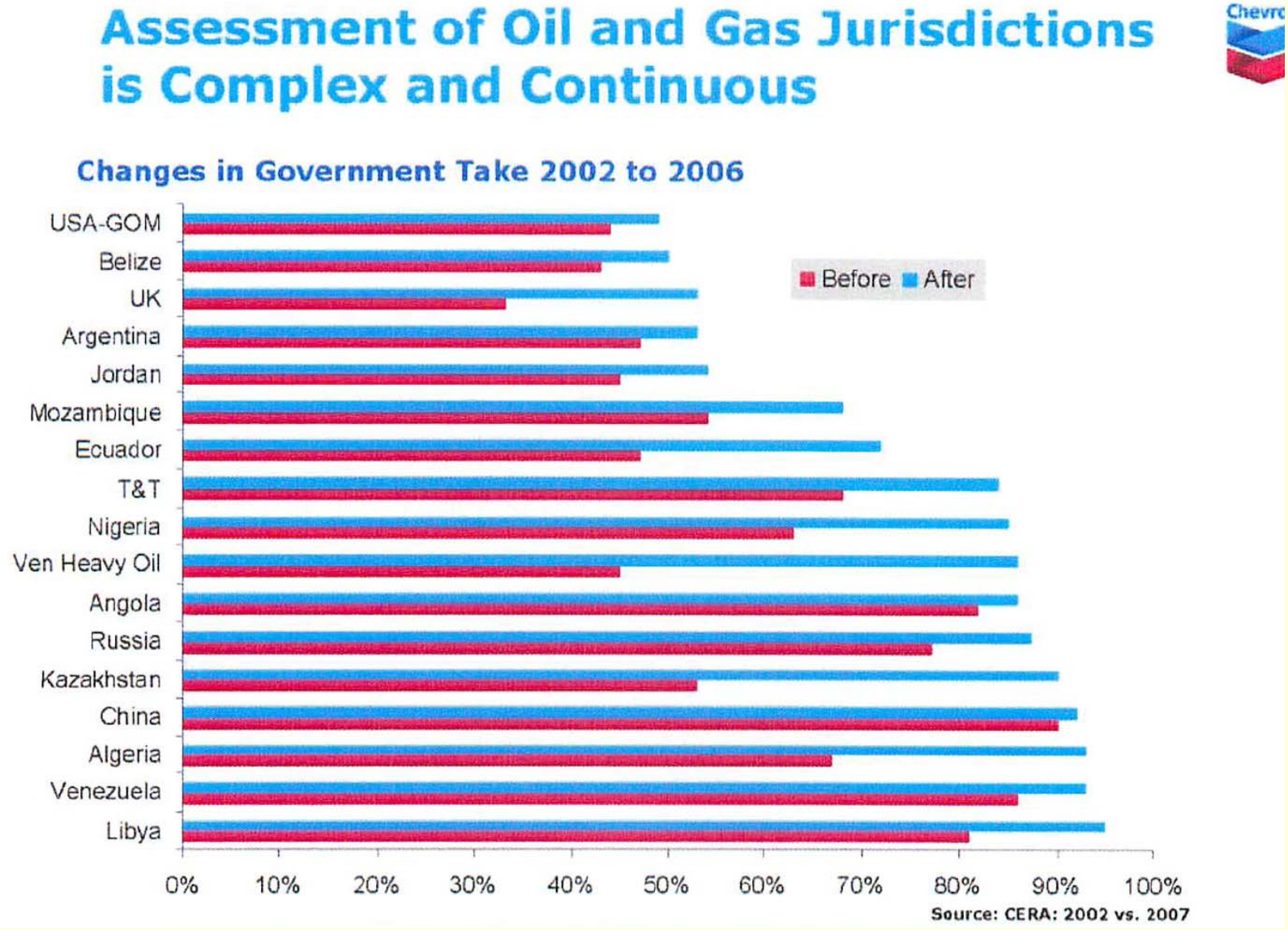
Case Studies: Government Competition for Oil & Gas Investment

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

Capturing “Fair Share”

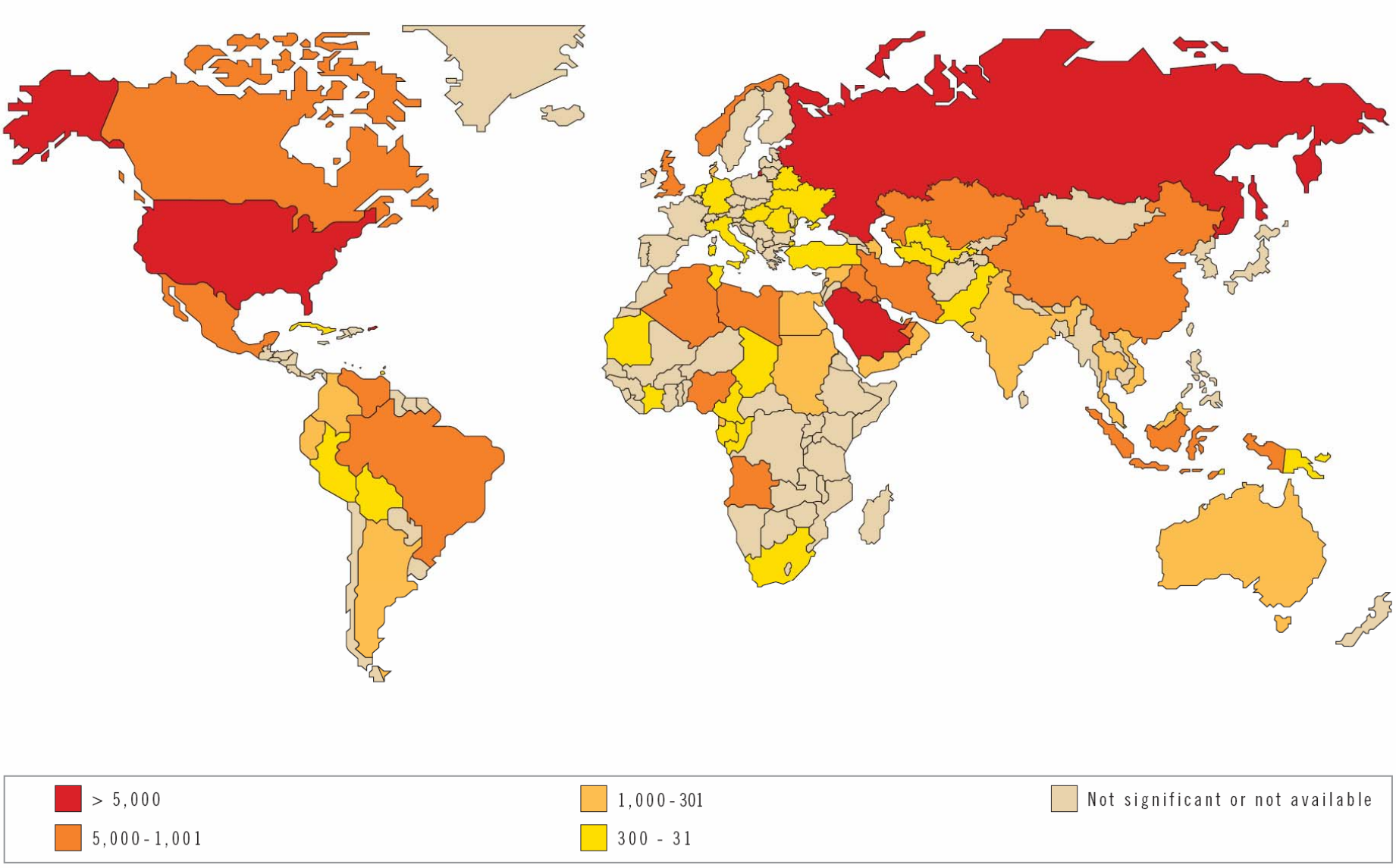


Source: Report of the Alberta Royalty Review Panel, “Our Fair Share”, page 29.

Today's Agenda

1. Background
2. Fiscal Regimes
3. Key Factors
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]

Alaska

- **Signature Bonus:** Yes
- **Royalty:** about 12.5%
- **Production Tax:** Petroleum Profits Tax, based on net income
- **Tax Credits & Uplift:** Yes
- **Property Tax:** Based on assessment
- **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%
- **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

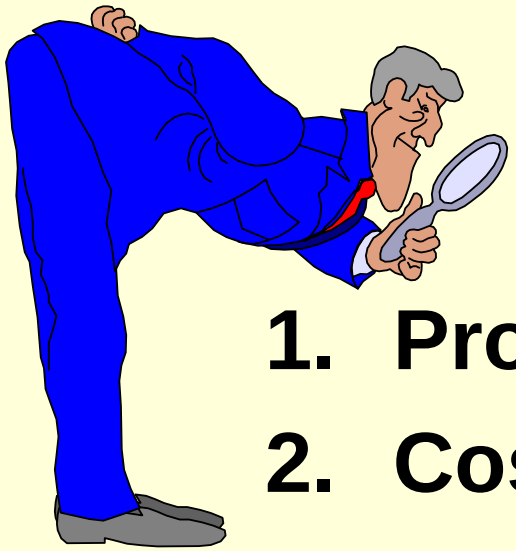
* For fields in operation prior to 1993, the Petroleum Revenue Tax is due and is a tax on net income with detailed specifications for such items as lease costs, acquisition costs, abandonment costs, tariffs, etc. The PRT has a tax rate of 25% and the tax paid is deductible from profits in computing Corporate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

US GOM

- **Signature Bonus:** Yes
- **Royalty:** Royalty relief* for deep water
- **Production Tax:** None
- **Tax Credits & Uplift:** Yes
- **Property Tax:** None
- **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% from12.5% - but the 87.5 million barrel exclusion still applies, and there is still no price trigger in the contracts.

Key Factors



1. Prospectivity
2. Costs
3. Risk
   - Political
   - Fiscal Stability
4. Capital Depreciation Time Frame
5. Government Take

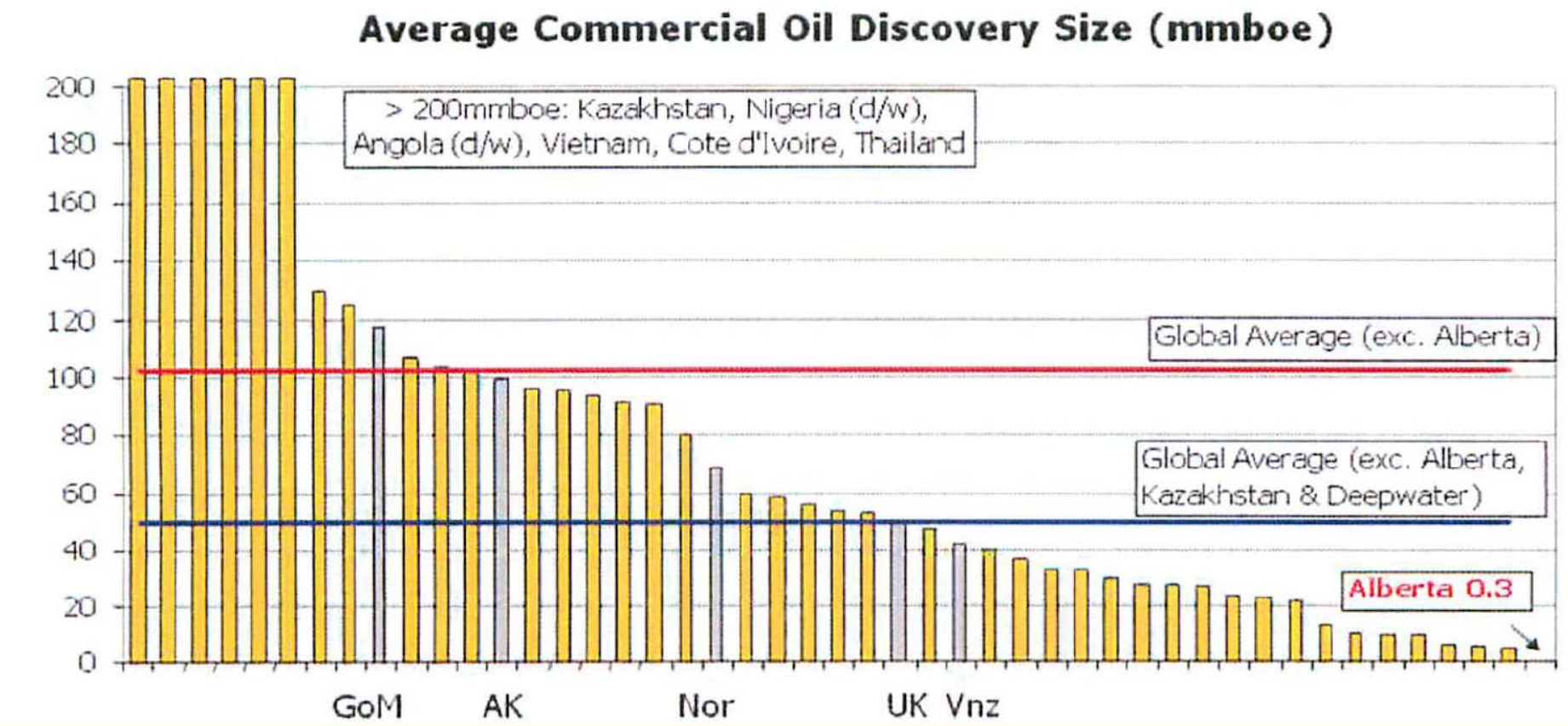
Attractiveness of Oil & Gas Resources

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

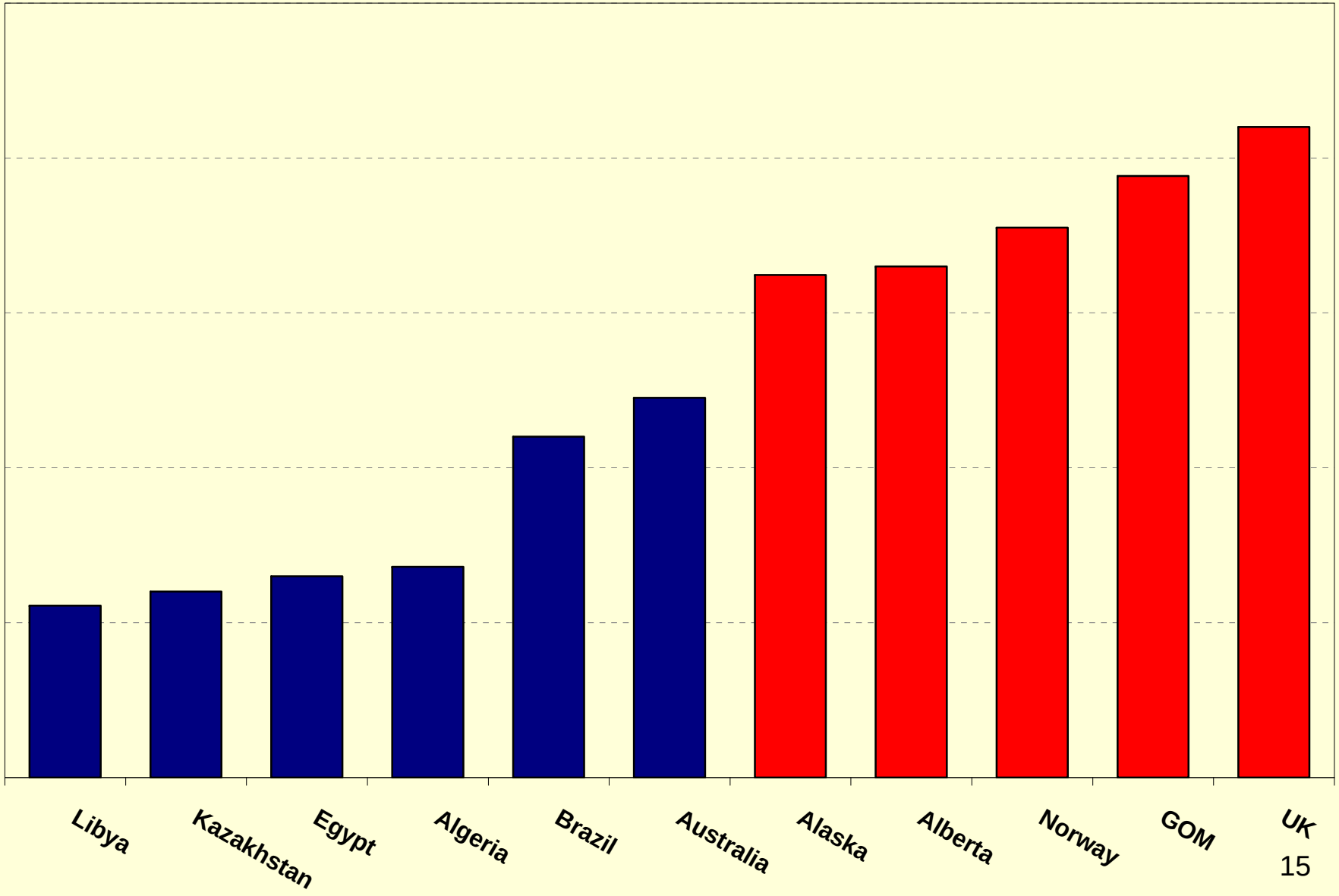
Source: PFC Study September 2007, Alaska data from AOGCC and DNR

Conventional Oil Pool Size
1994 – 2003



Source: Report of the Alberta Royalty Review Panel, “Our Fair Share”, page 50.

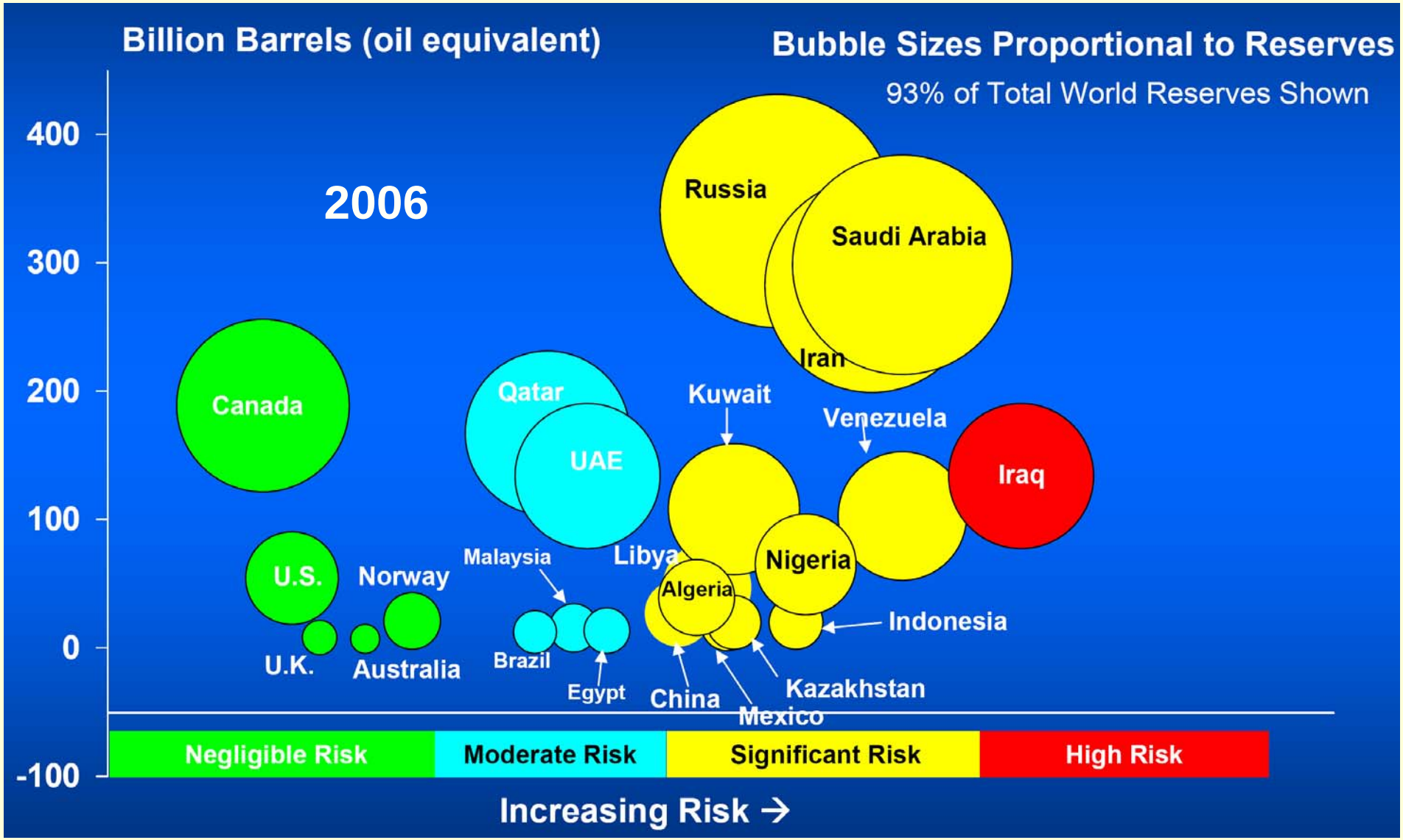
Upstream Per Barrel Production Cost



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

Reserves Breakdown By Risk

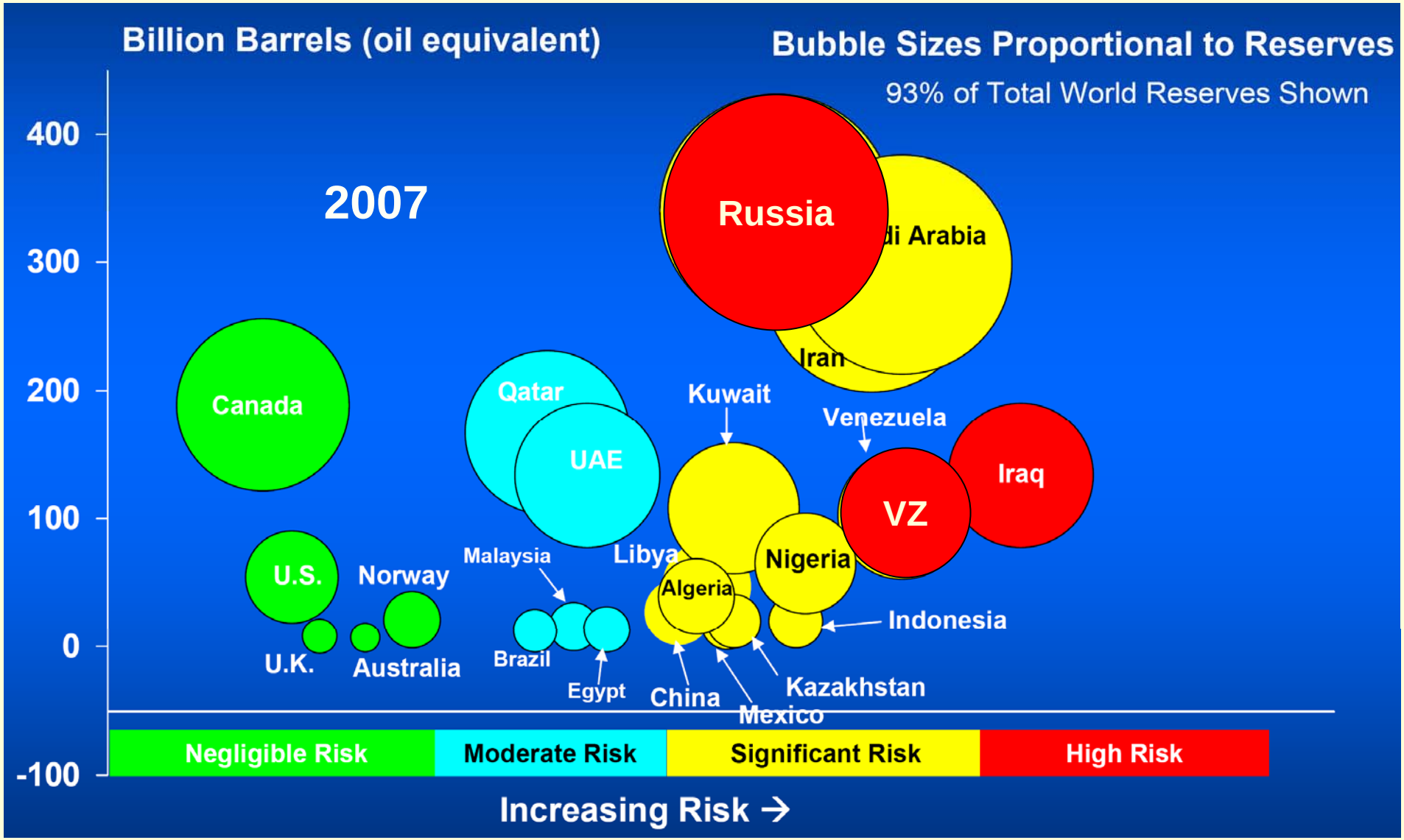
Total Oil & Gas Reserves



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

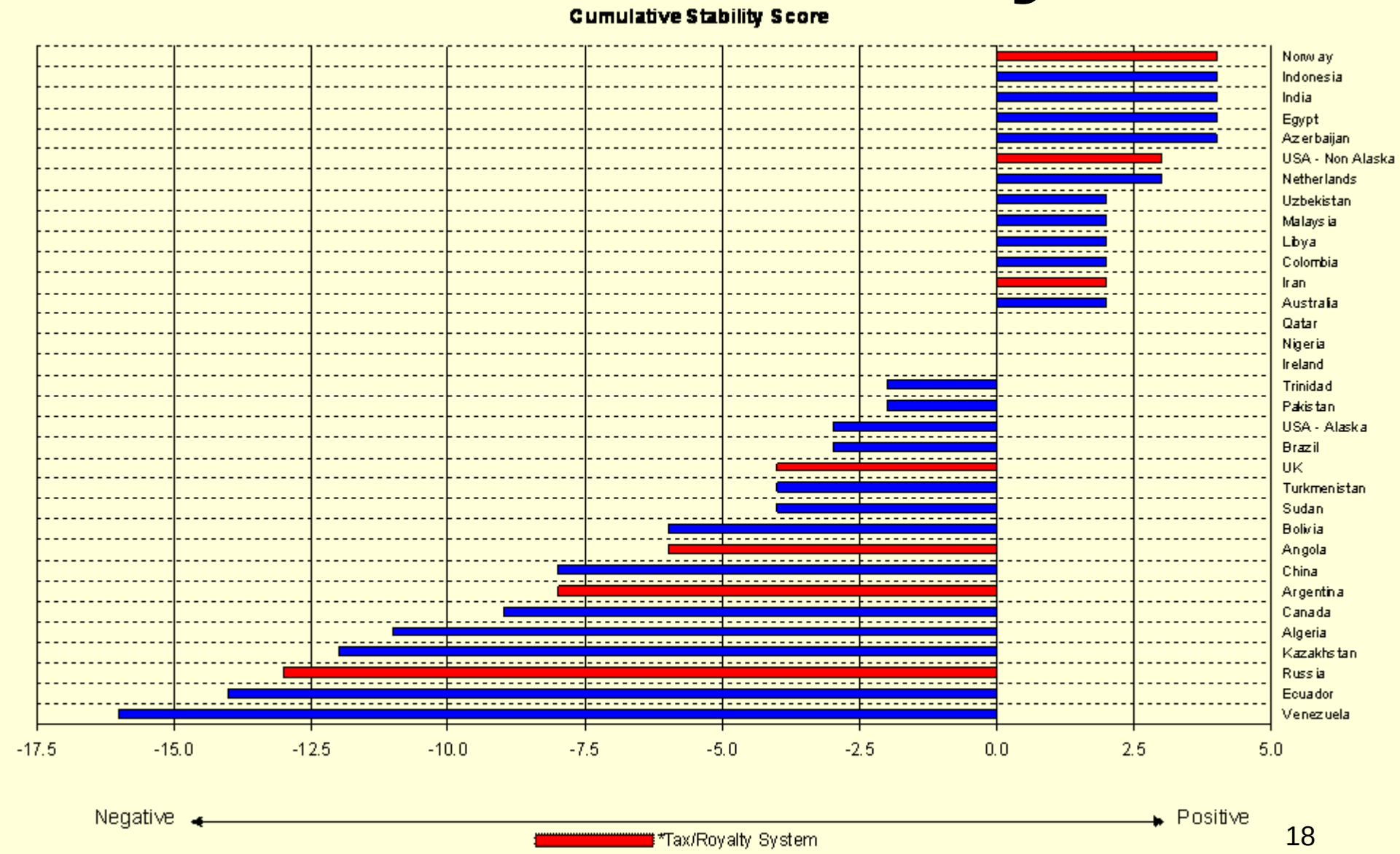
Reserves Breakdown By Risk

Total Oil & Gas Reserves



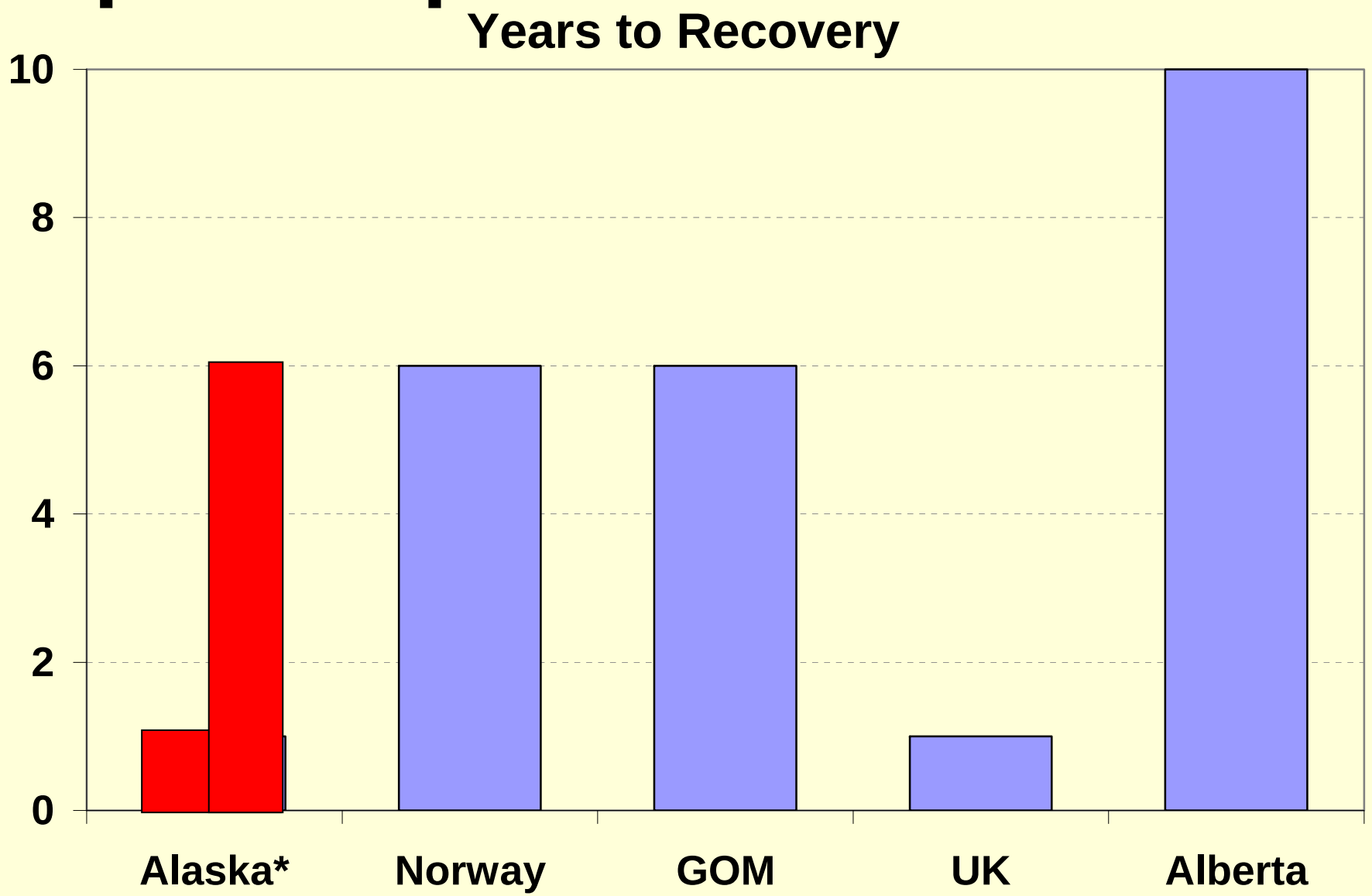
Source: Initial chart from ConocoPhillips, Petroleum Equipment Suppliers Association, April 20, 2006, adjusted by DOR to reflect 2007 events.

Fiscal Stability



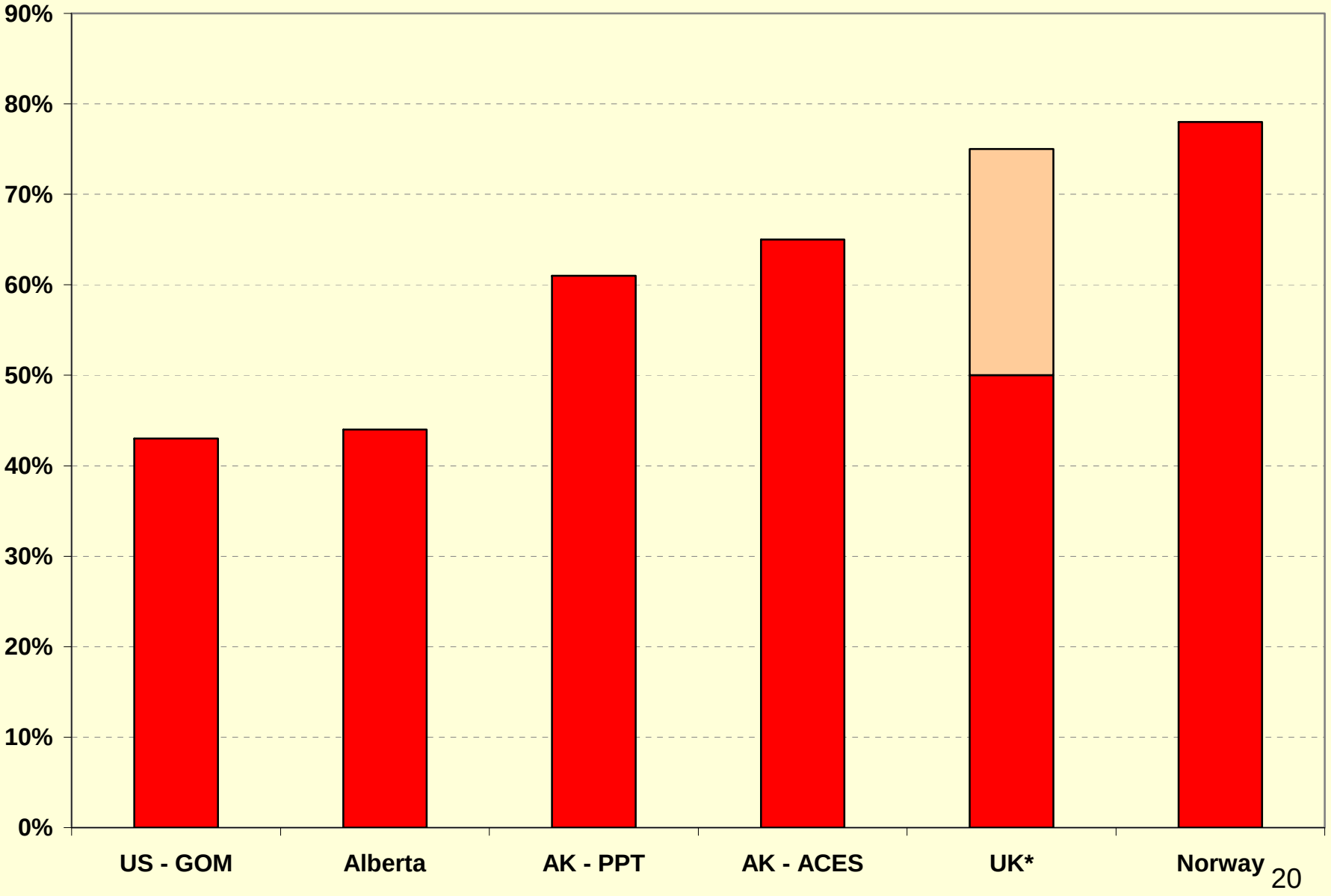
Source: PFC Study September 2007

Capital Depreciation Time Frame



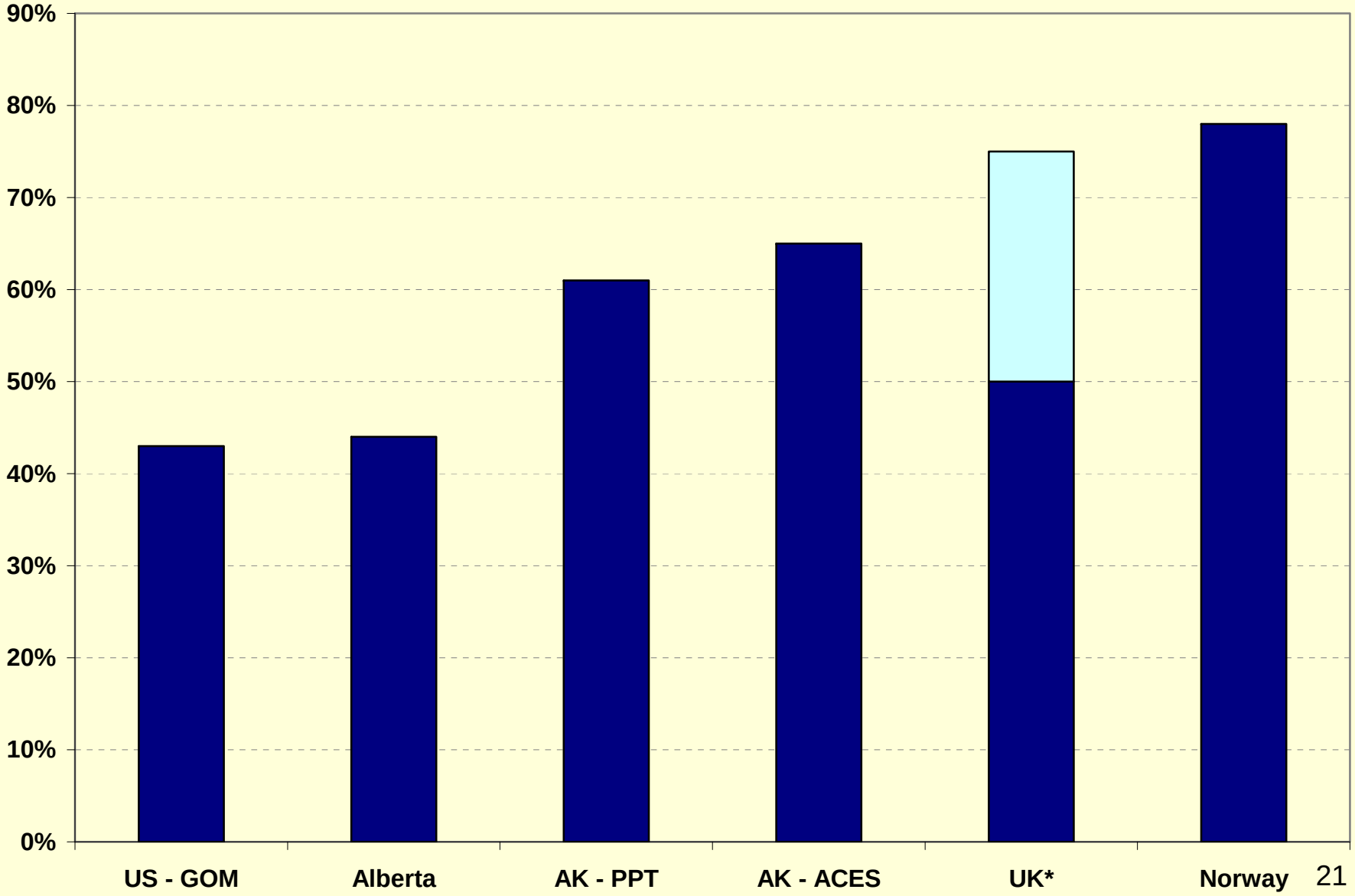
* Under PPT there is a one year write off, for Federal Corporate Income Taxes there is a depreciation schedule.

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, PFC 2007, US General Accounting Office 2007

Where are the Capital $s being spent?

		Capital Spending ($millions)									
		2006		2005		2004		2003		2002	
BP:	US	$6,592	50%	$3,870	38%	$3,913	36%	$3,906	26%	$3,100	32%
	International	$6,526	50%	$6,367	62%	$7,095	64%	$11,286	74%	$6,559	68%
	TOTAL	**$13,118**		**$10,237**		**$11,008**		**$15,192**		**$9,659**	
Exxon:	US	$2,486	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%	$645	12%	$570	13%	$706	22%
	US (Continental)	$2,008	21%	$891	13%	$669	12%	$848	19%	$499	15%
	International	$6,685	70%	$5,047	76%	$3,935	75%	$3,090	68%	$2,071	63%
	TOTAL	**$9,513**		**$6,684**		**$5,249**		**$4,508**		**$3,276**	
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**	

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**