

SCOMM

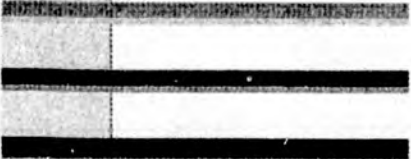
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Perceptions of Alaska

Alaska Oil and Gas Market Research Project



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The Agenda

- **About GCA**
- **Scope of Work**
- **The Global Scene**
- **Perceptions of Alaska**
- **Conclusions**
- **Recommendations**

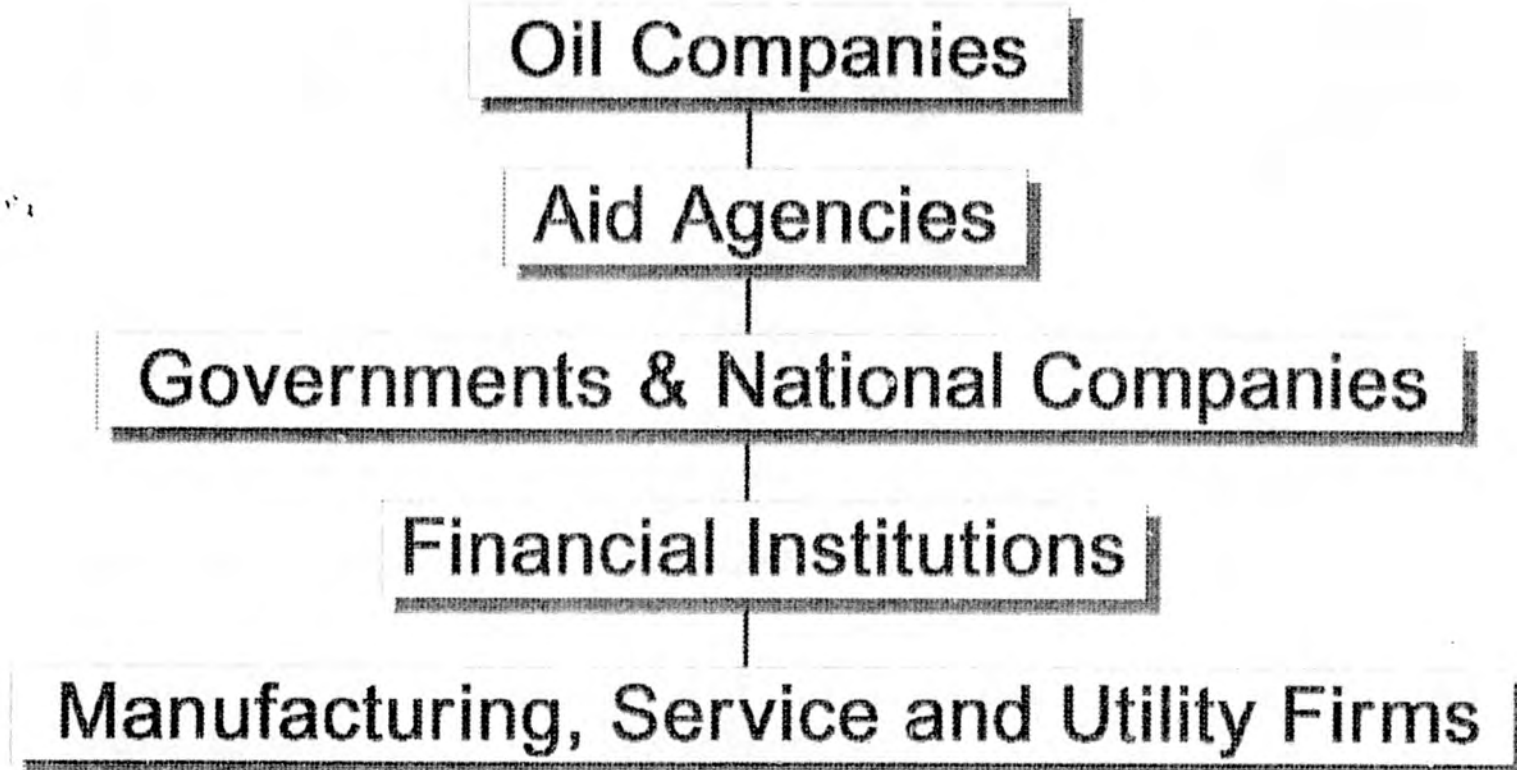
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***Technical and management services to the oil industry
worldwide since 1962***

Who does GCA work for ?



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How is GCA staffed ?

Reservoir Engineers

Drilling Engineers
Petrophysicists
Geophysicists
Geologists

Production Engineers
Facilities Engineers
Process Engineers
Crude/Products Traders

Mathematicians

Economists

Lawyers

Bankers

Upstream

Downstream

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Where is GCA ?



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NOC and Government Clientele

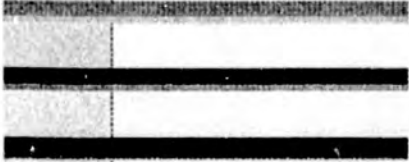


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Current Projects

- Australia
- Bolivia
- China
- Ireland
- Netherlands
- Malaysia (>1)
- Indonesia(>1)
- Peru
- Turkmenistan
- UK (>1)
- USA (>1)
- Argentina (>1)
- Angola
- Ecuador
- Venezuela (>1)
- Russia
- Ukraine
- Slovenia
- Norway (>1)
- Italy

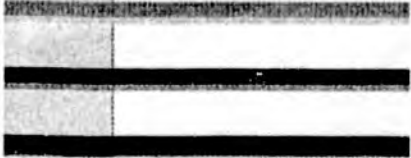
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The GCA Perspective

- ▶ **Multi-discipline**
- ▶ **Trans-national**
- ▶ **Buyer-Seller**
- ▶ **Host-Guest**

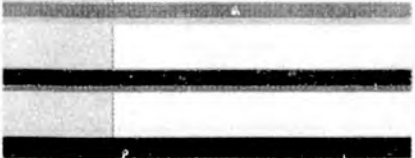
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Scope of Work

- ▶ General industry conditions
- ▶ Comparison of Alaska with competing areas in respect of oil and gas investment attractiveness
- ▶ Strengths and Weaknesses
- ▶ Potential competitive strategies

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Summary



- ▶ World is Changing
- ▶ Alaska increasingly less Competitive
 - High Cost
 - Tough Terms
 - Difficult
- ▶ Progress has been made
- ▶ Much still to do
- ▶ Now is the time to do it

OIL - A SUNSET INDUSTRY * ?

Mature Product Business Behavior

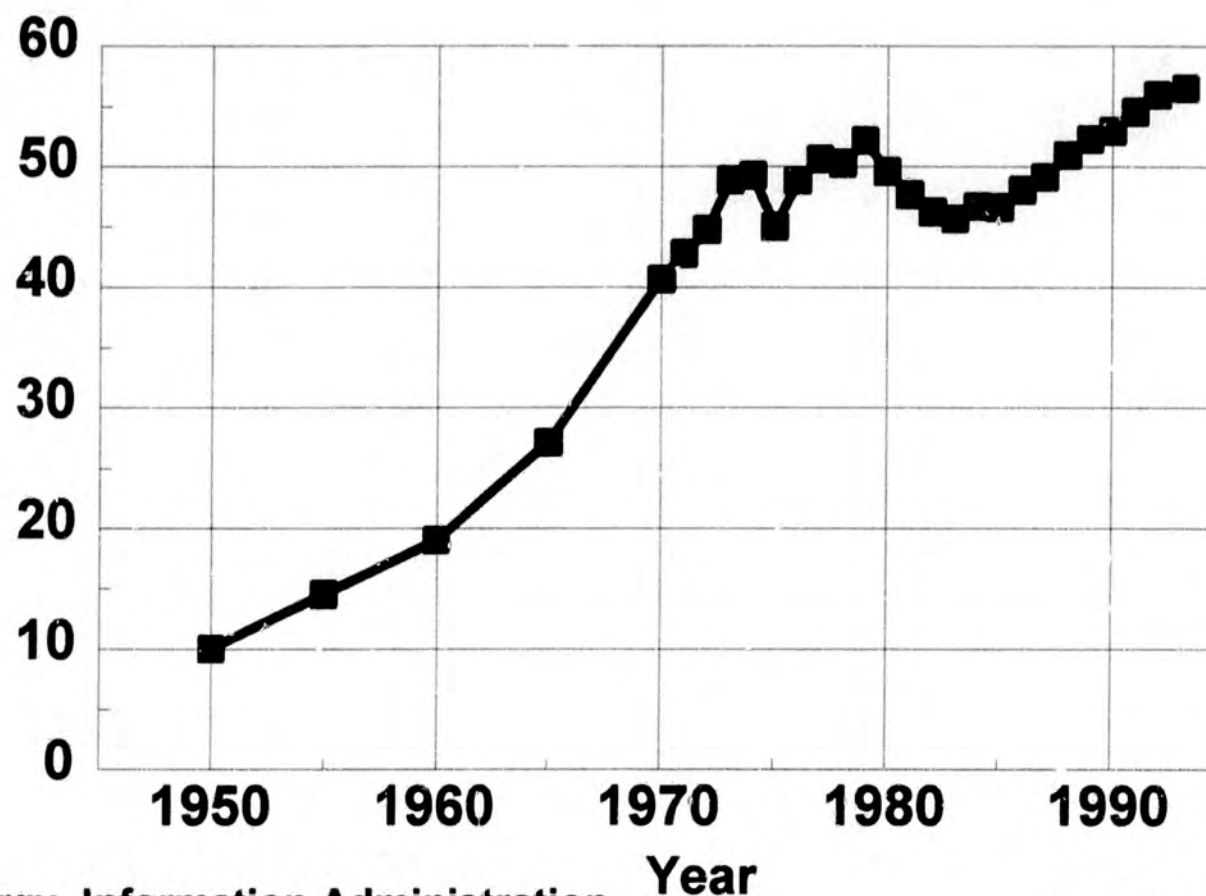
- **Cut costs**
 - **Outsourcing**
 - **Aggressive inventory management**
 - **Aggressive receivable management**
 - **Shrink product lines to core (niche)**
 - **Short-term results oriented**
- 

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WORLD OIL DEMAND

Without Centrally Planned Economies

MMBOPD

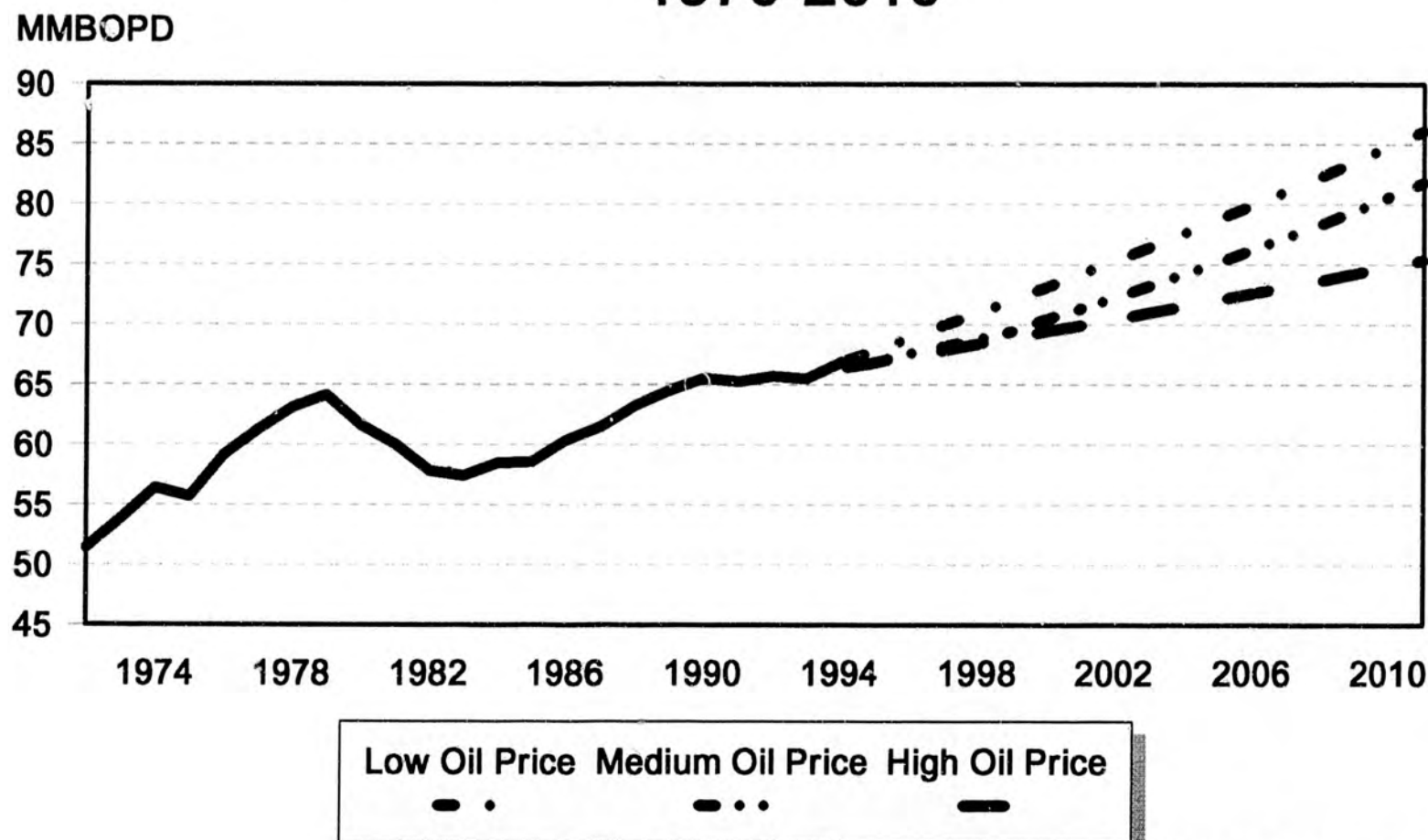


Source: Energy Information Administration

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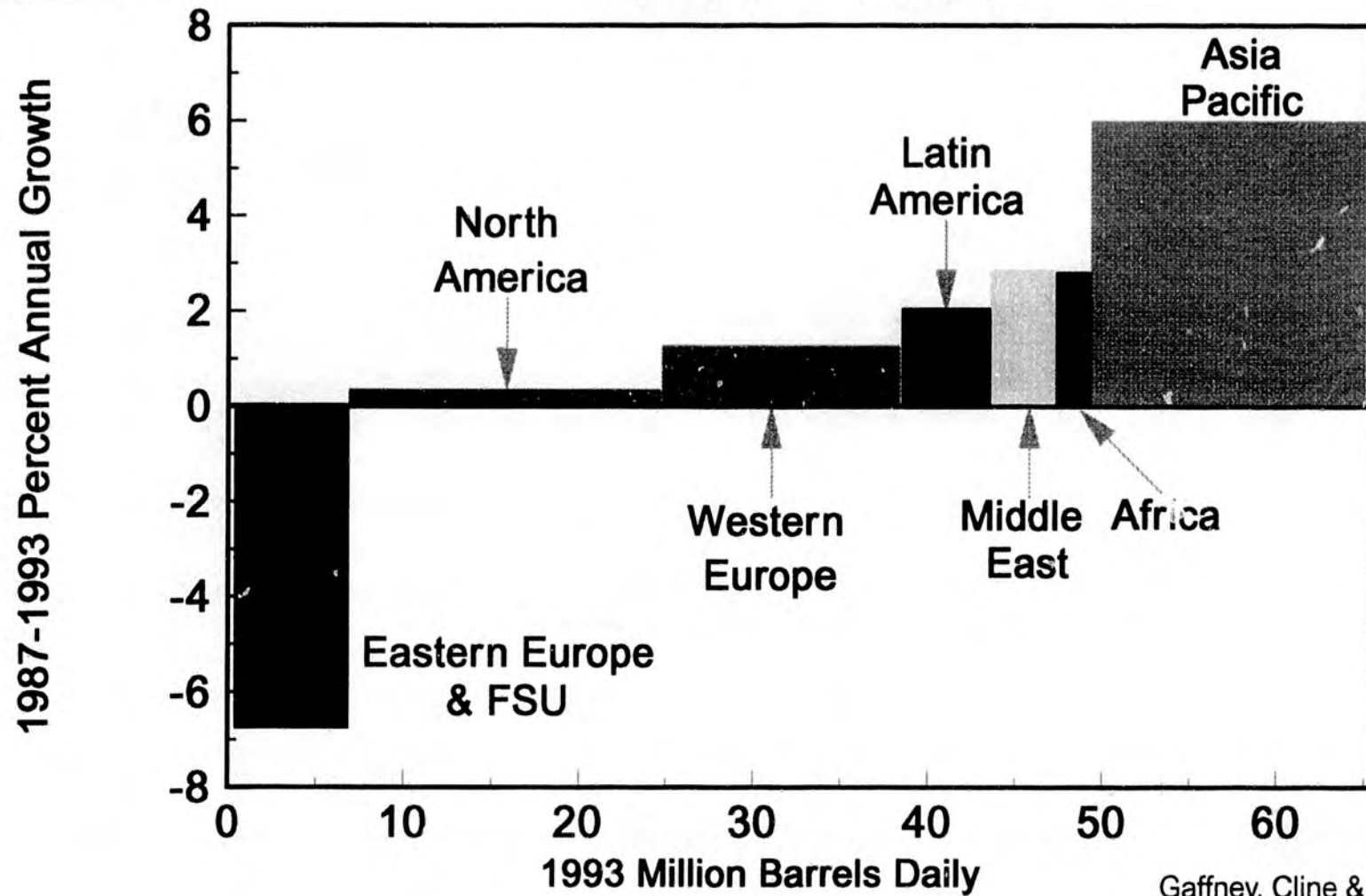
HISTORICAL/PROJECTED WORLD OIL DEMAND

1970-2010



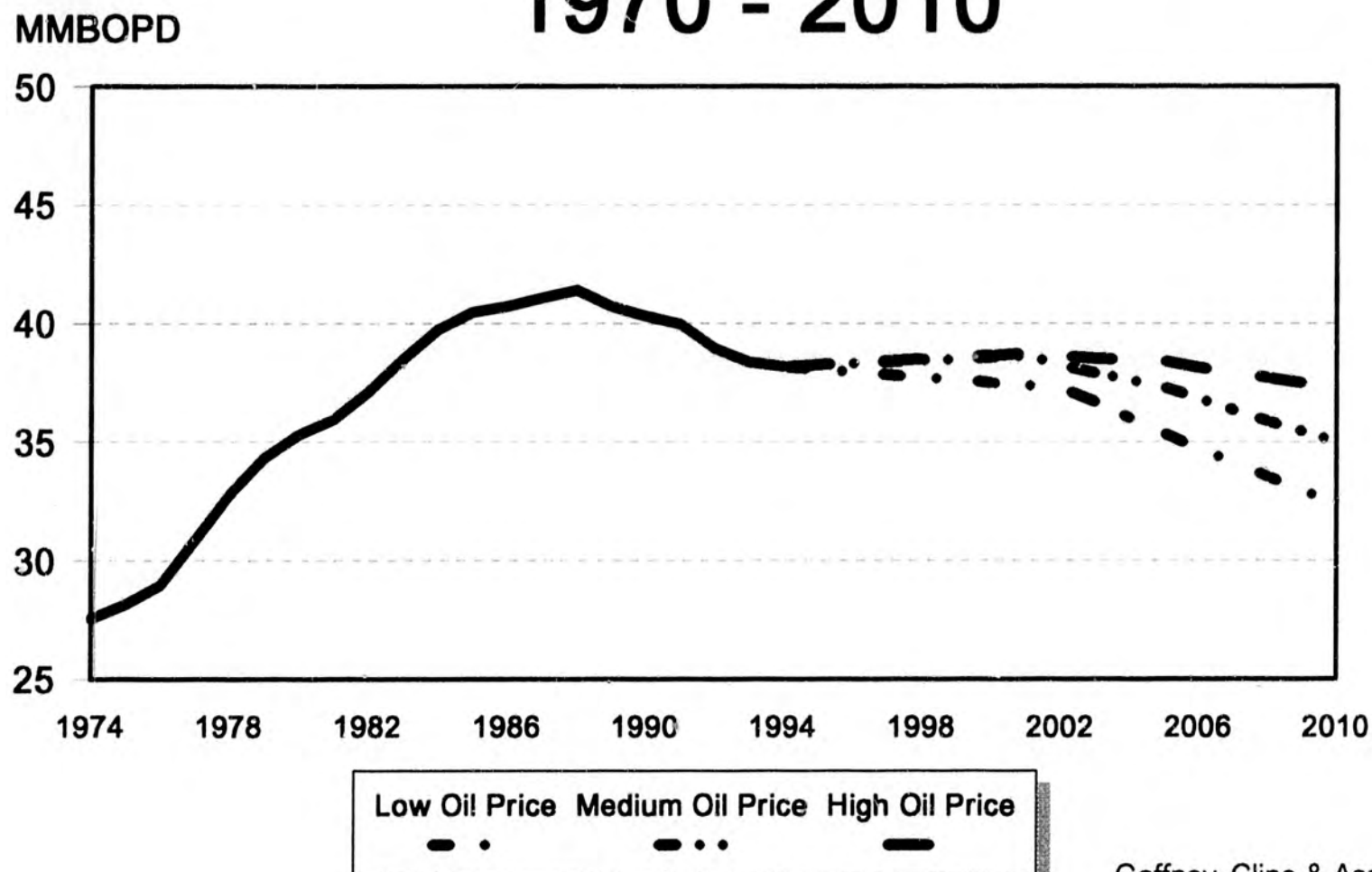
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World Oil Demand Annual Growth 1987 - 1993



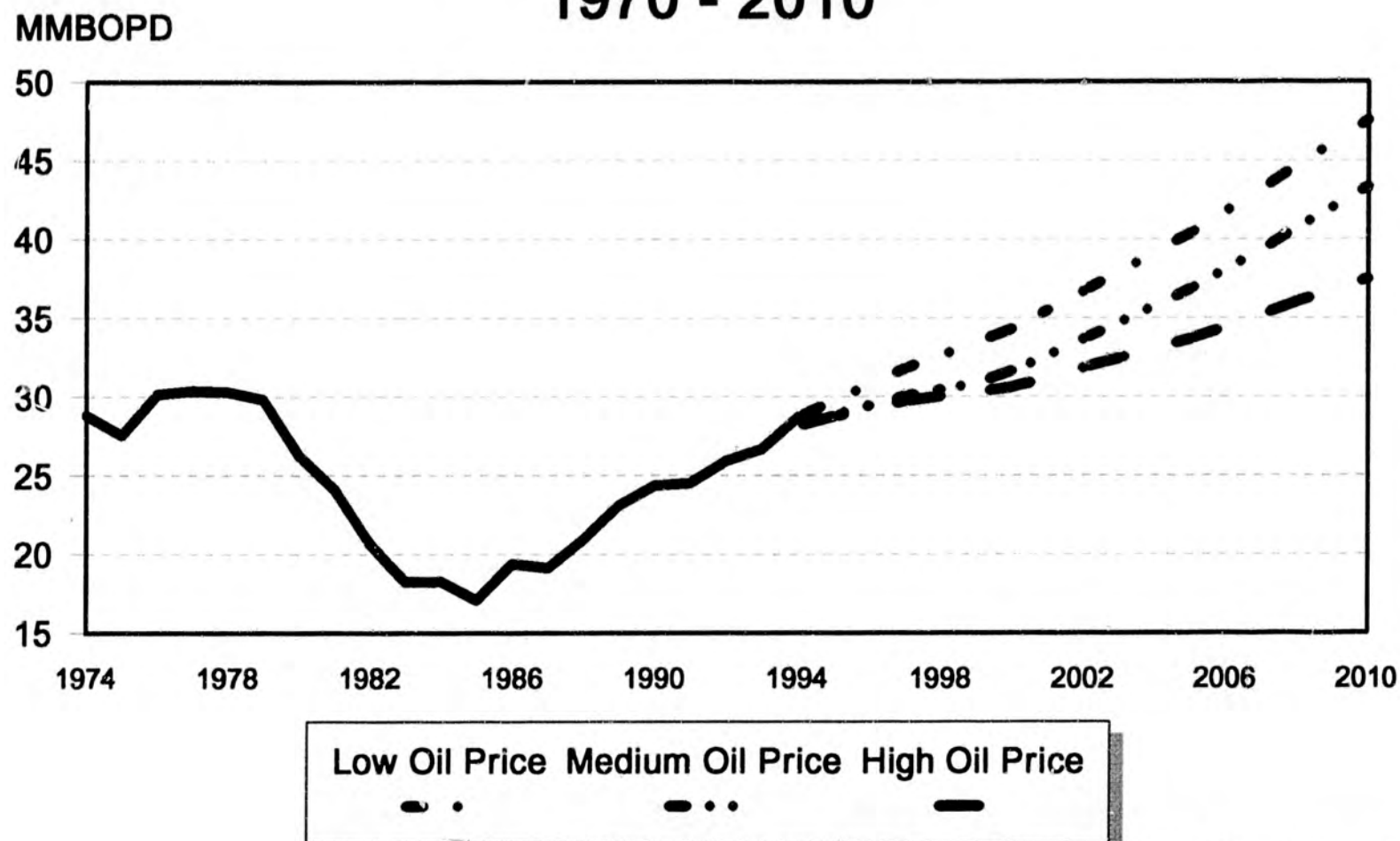
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HISTORICAL/PROJECTED NON-OPEC OIL SUPPLY 1970 - 2010



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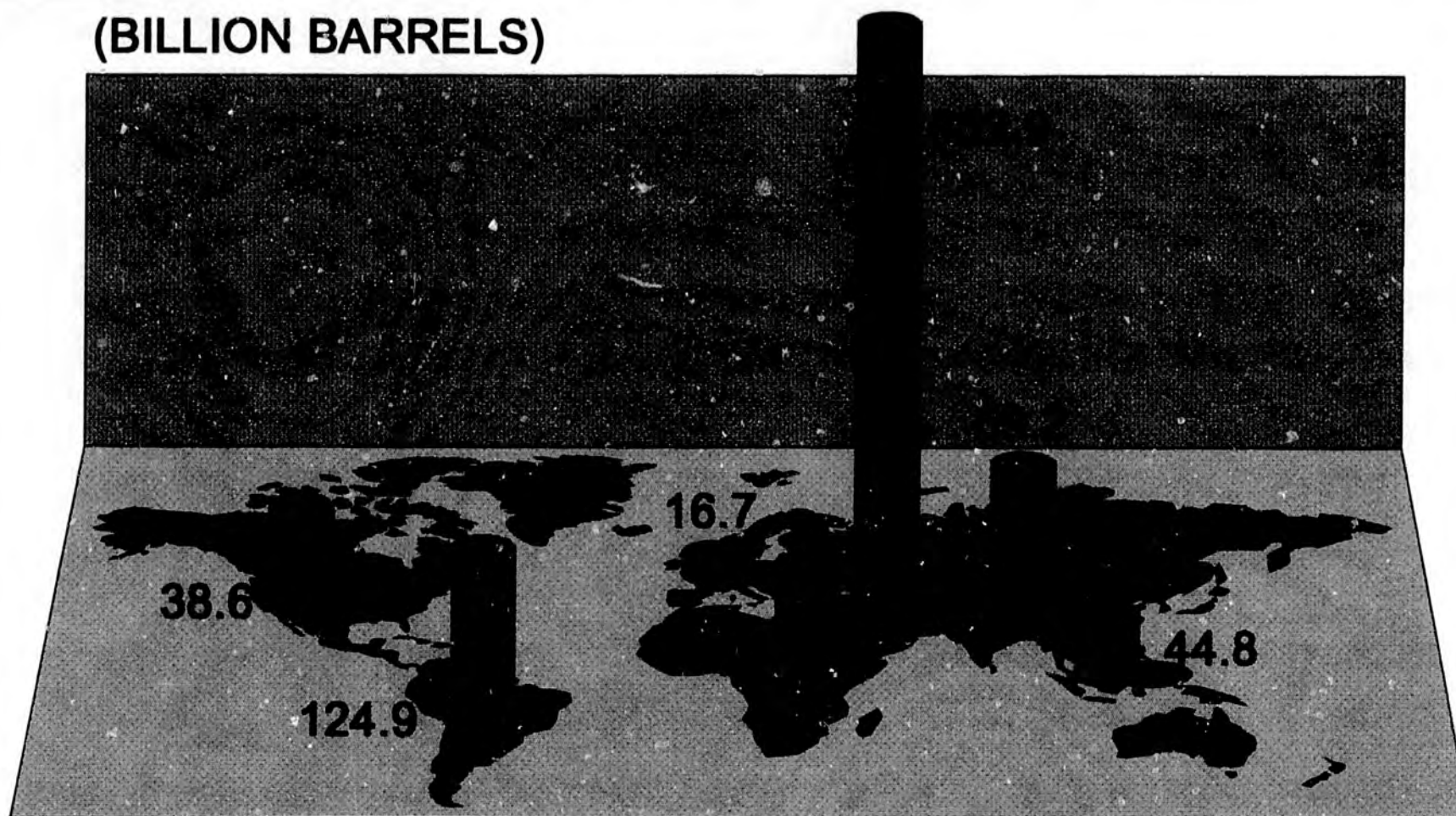
HISTORICAL/PROJECTED OPEC OIL SUPPLY 1970 - 2010



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PROVED RESERVES AT END 1993

(BILLION BARRELS)



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**The Oil Price
is Going
to \$25/BBL**

***What do I do
'til it gets there***



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1994

- **OPEC's leverage increases**
- **No corporate mega-transactions yet but...**
- **Industry structure looks ripe for early-80's round of M&A**
- **New Plays in the GOM Subsalt, West of Shetlands, and Timor Gap**
- **North American gas industry remains robust**

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he Integrateds

- **Recession**
- **Refining/Environmental costs in USA**
- **How to play Russia and the CIS**
- **Cutting costs (and staff)**

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he Independents

- **Sticking to the Knitting**
- **Better US gas prices**
- **Stay at home or go abroad, where ?**

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he NOC's and Ministries

- **Competing with the FSU**
- **Selling the new policies at home**
- **Re-focusing on gas**
- **The next road-show in Houston**

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TODAY'S WORLD



- Flat oil price perception
- Short-medium term oversupply
- Increasing dependence on Gulf production
- Russia / FSU impact
- Potential for price fly-up from
 - Demise of the House of Saud
 - The rise of mad Vlad
 - Dominant supplier(s) acting that way
- But when ??? !!! ...

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THE WORLD SCENE



- Flat Oil Prices
- Better US Gas Prices
- Perceptions of over supply
- The Move to onshore

'Cause that's where prospects are ?

'Cause it might be cheaper ?

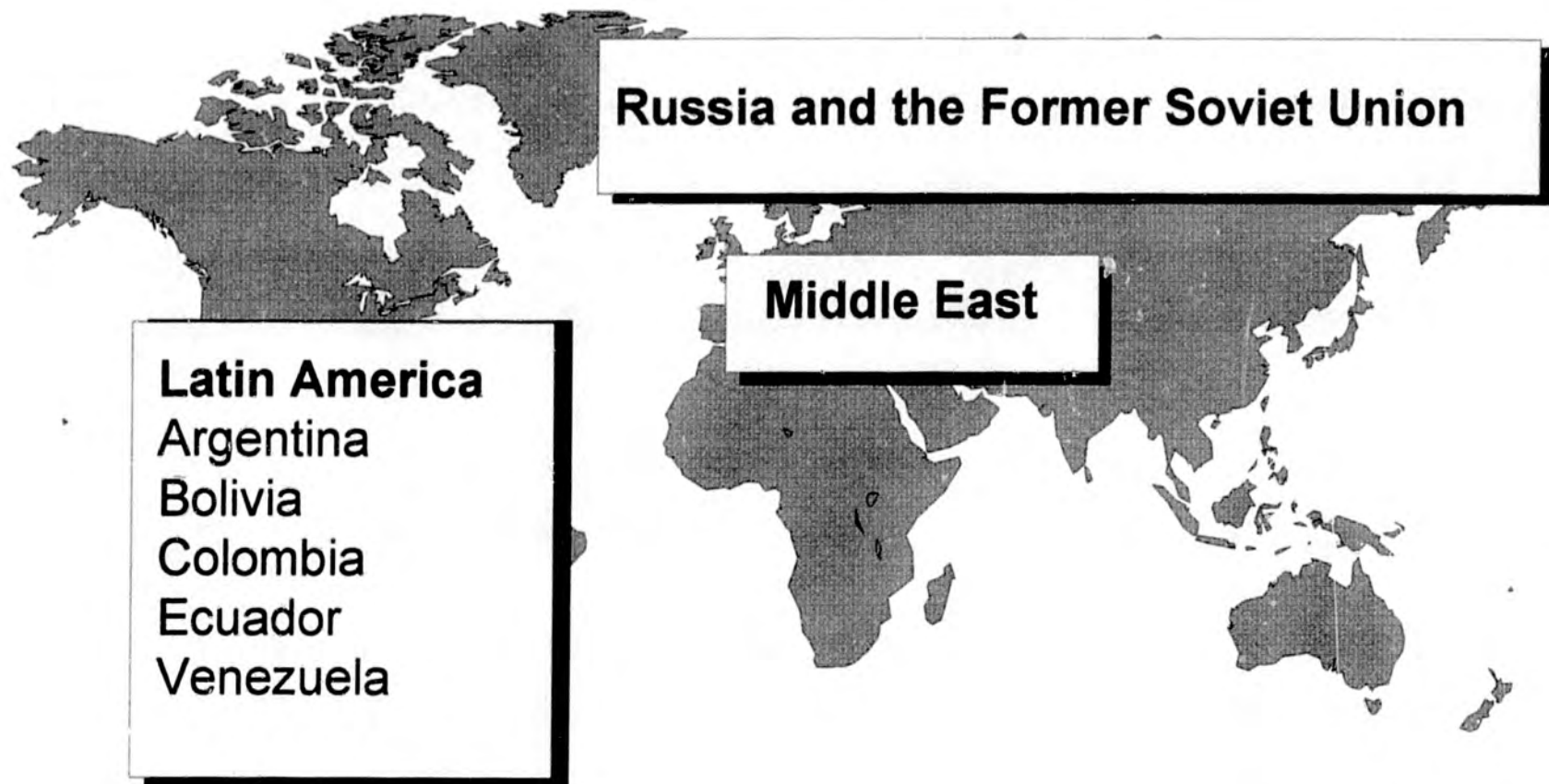
'Cause that's where the 'Buzz' is.

- The switch to gas

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THE DRIFT TO ONSHORE

The Key Locations



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The 1980's World



□ Accessible
■ Inaccessible

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The 1990's World

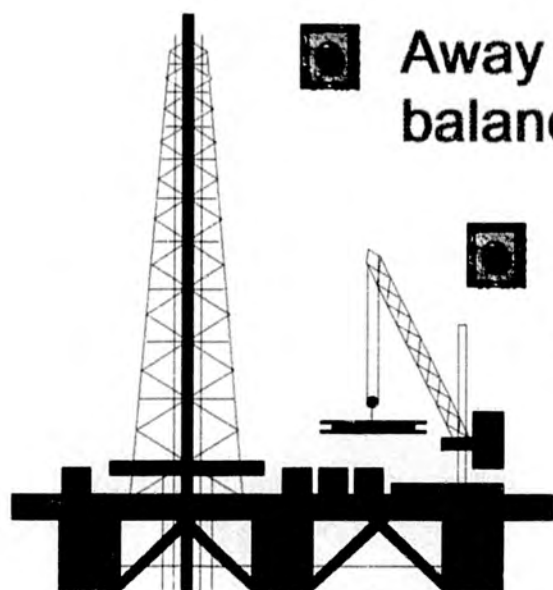


□ Accessible
■ Inaccessible

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DRILLING TRENDS

- Towards onshore
- Towards majority of (near) horizontal producers



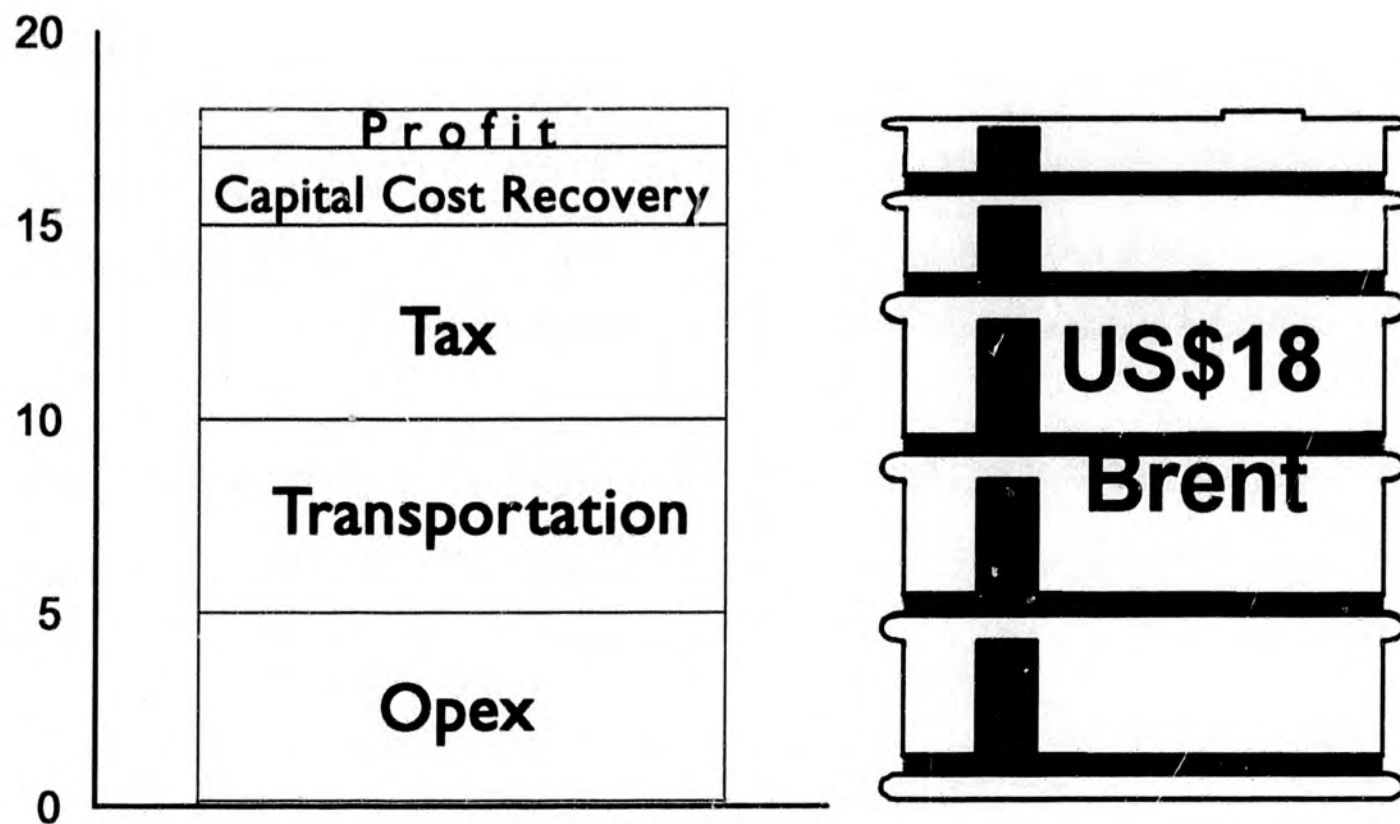
- Away from the Arctic International/US balance

- Away from uneconomic wells in FSU/Europe/China

- More infill drilling

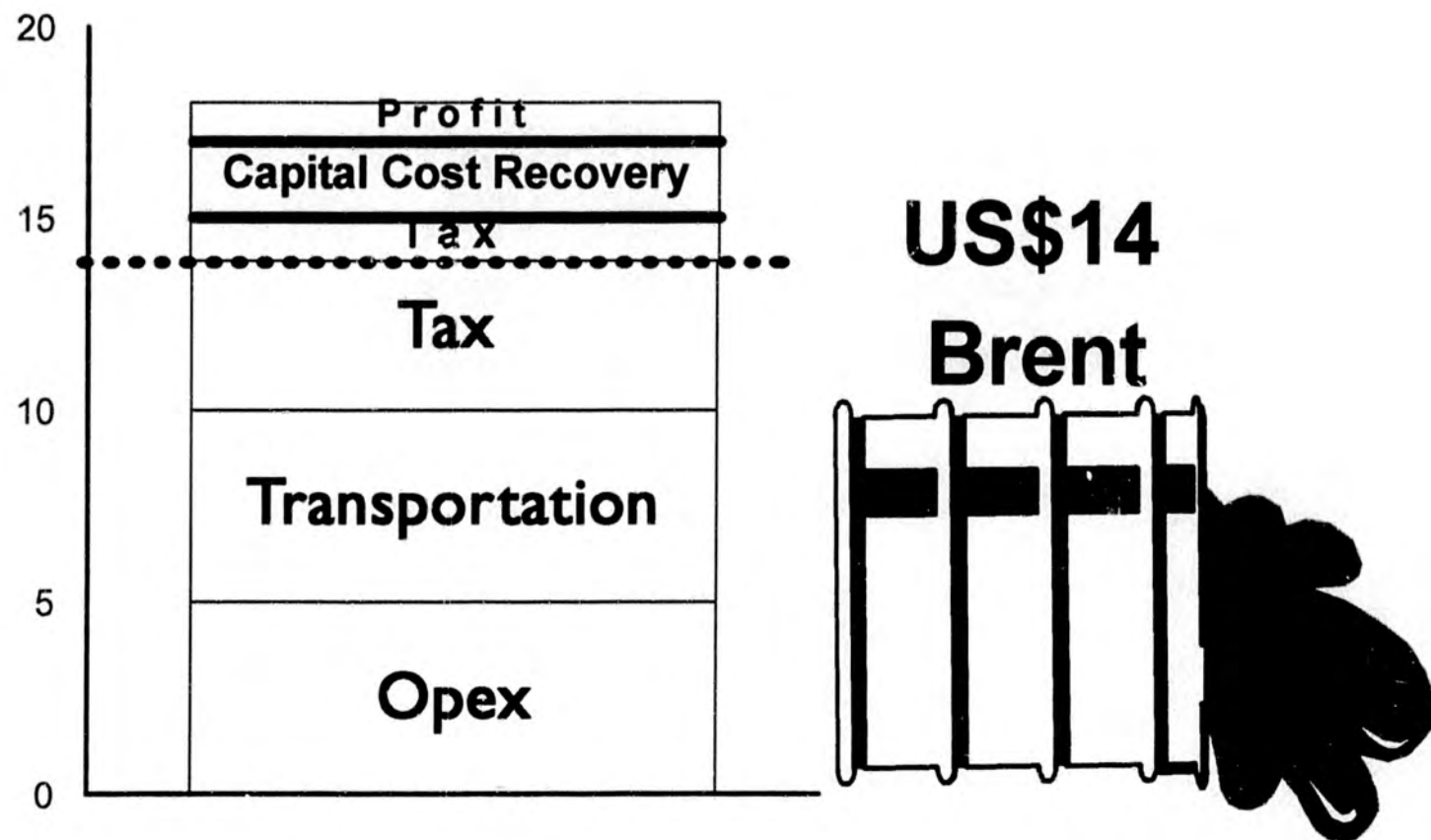
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CASH ON THE BARREL



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CASH ON THE BARREL



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The Arrival of Natural Gas

- As a good and growing business**
- As environmentally attractive**
- As a viable fuel substitute but...**

Competes with Coal and heavy end of barrel
Large increments of investment
Long lead-times
Often multi-national

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STRATEGIC IMPLICATIONS - I

- Pressure on high cost or low value production**
 - EOR**
 - Heavy, sour oil**
 - High operating cost production**
 - High transportation cost production**
 - High state take production**
- Pressure/incentive for E&P capital to fund OPEC**
- Fiscal terms will loosen (where they can)**

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STRATEGIC IMPLICATIONS - II

- Incremental, cash-flowing developments**
- Frontier of exploration gets closer**
- Insulation from oil prices**
 - Gas**
 - Transportation**
 - Fee-based compensation**
- Shift from reserves replacement to cash flow focus**

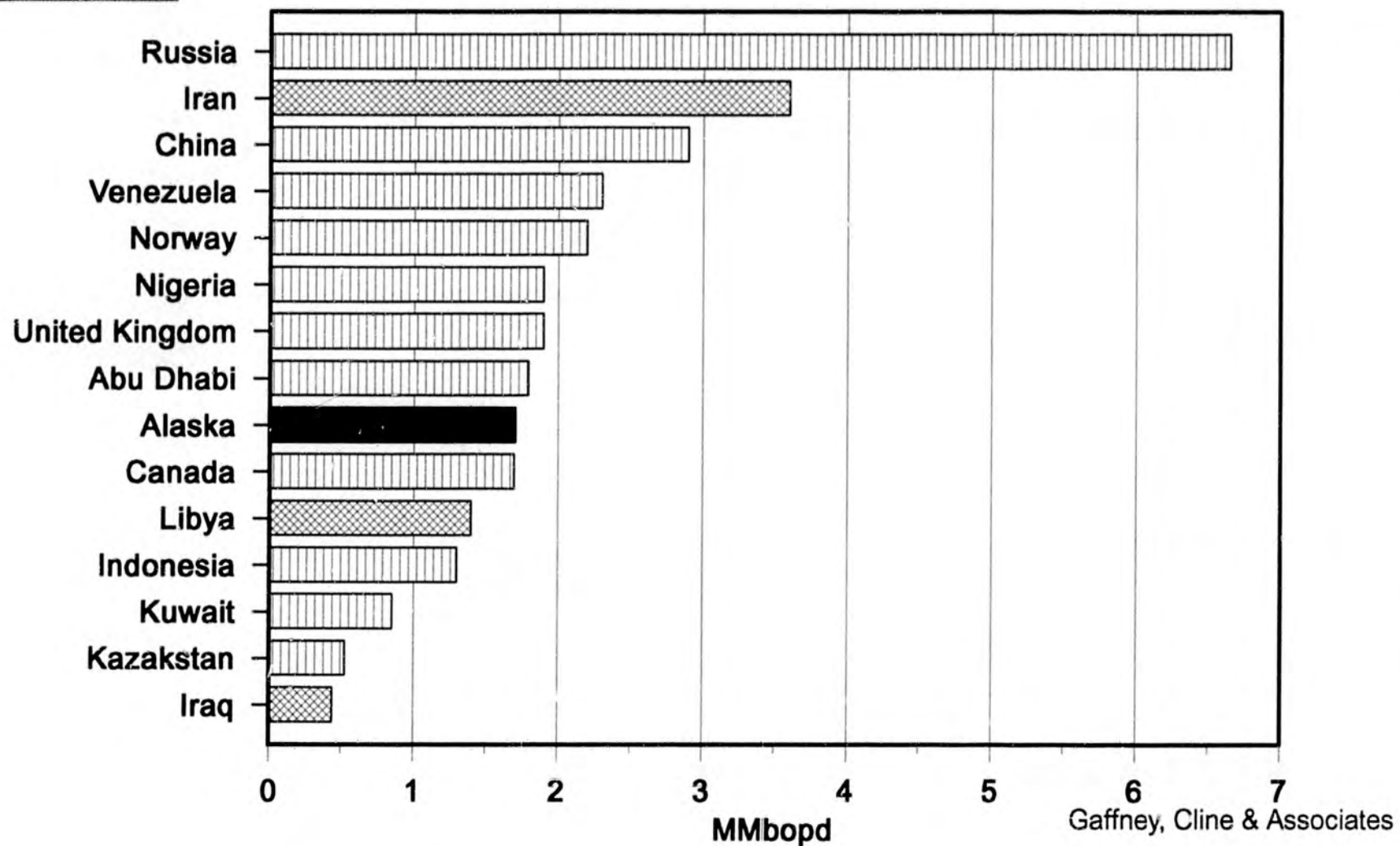
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The Competition

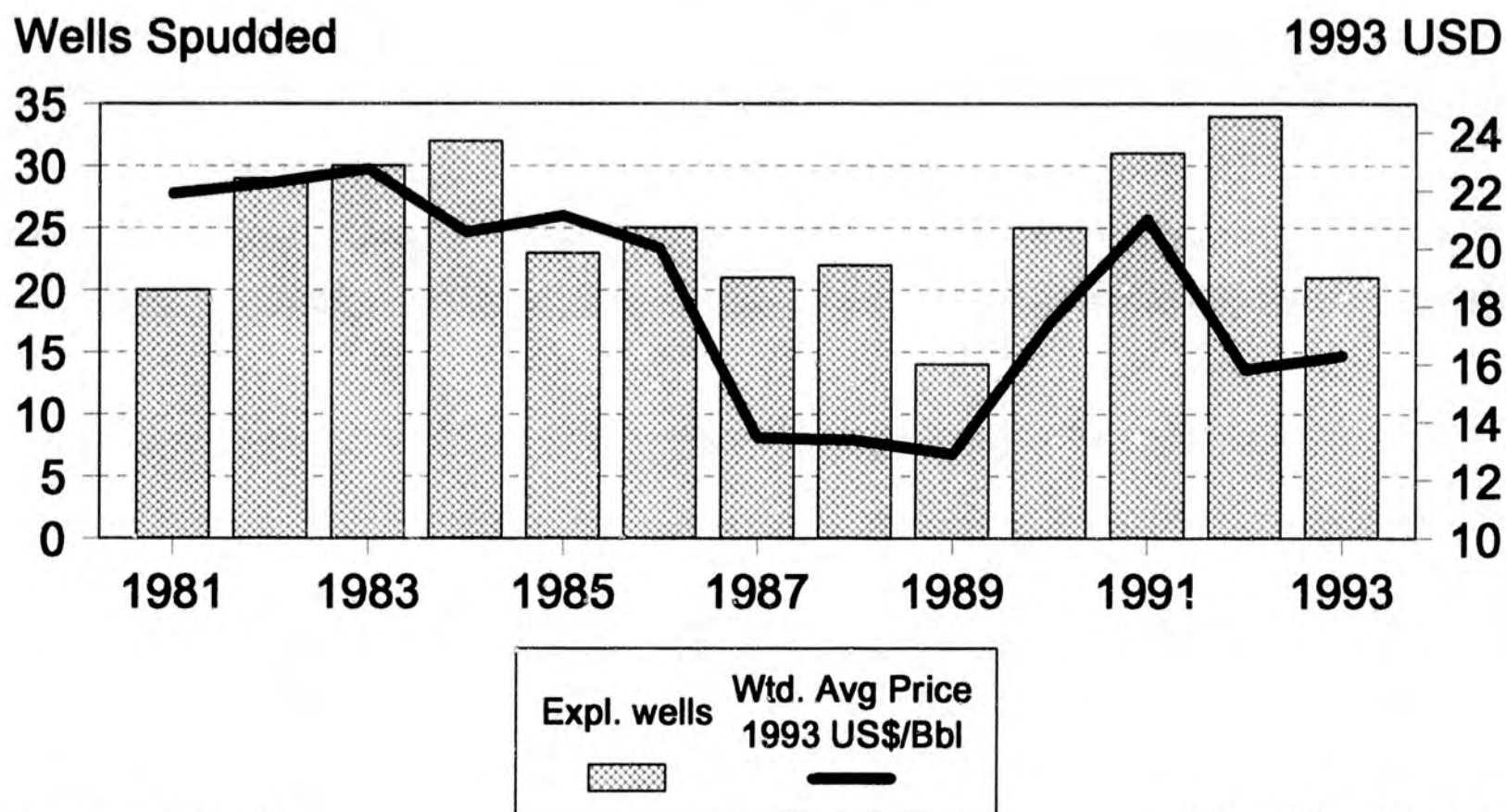
- ▶ Primarily production level based criteria
- ▶ Wide range of opportunity and risk
- ▶ Highlights competitive (dis)advantages
 - Fiscal terms
 - Risk
 - Reward
- ▶ But Smaller oil areas also competitive...
 - Argentina
 - Colombia
 - Malaysia
 - Yemen

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Current Average Daily Production



Norway Exploration Drilling Activity & Weighted Average Crude Oil Price (1993 USD)



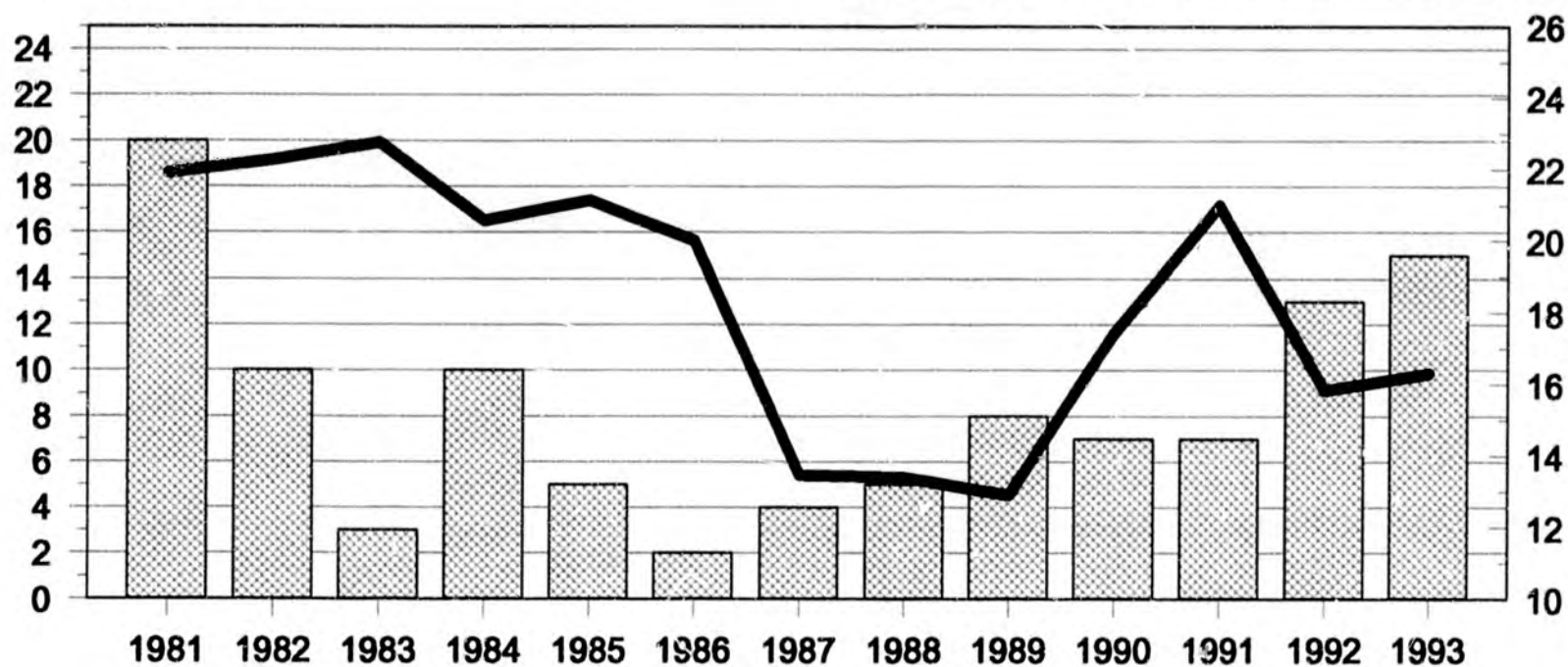
Sources : DOE/BP/RPI

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Alaska E and A Drilling & Weighted Average Crude Oil Price (1993 USD)

No. Wells Drilled

1993 US Adjusted Crude Oil Price, US\$ / Barrel

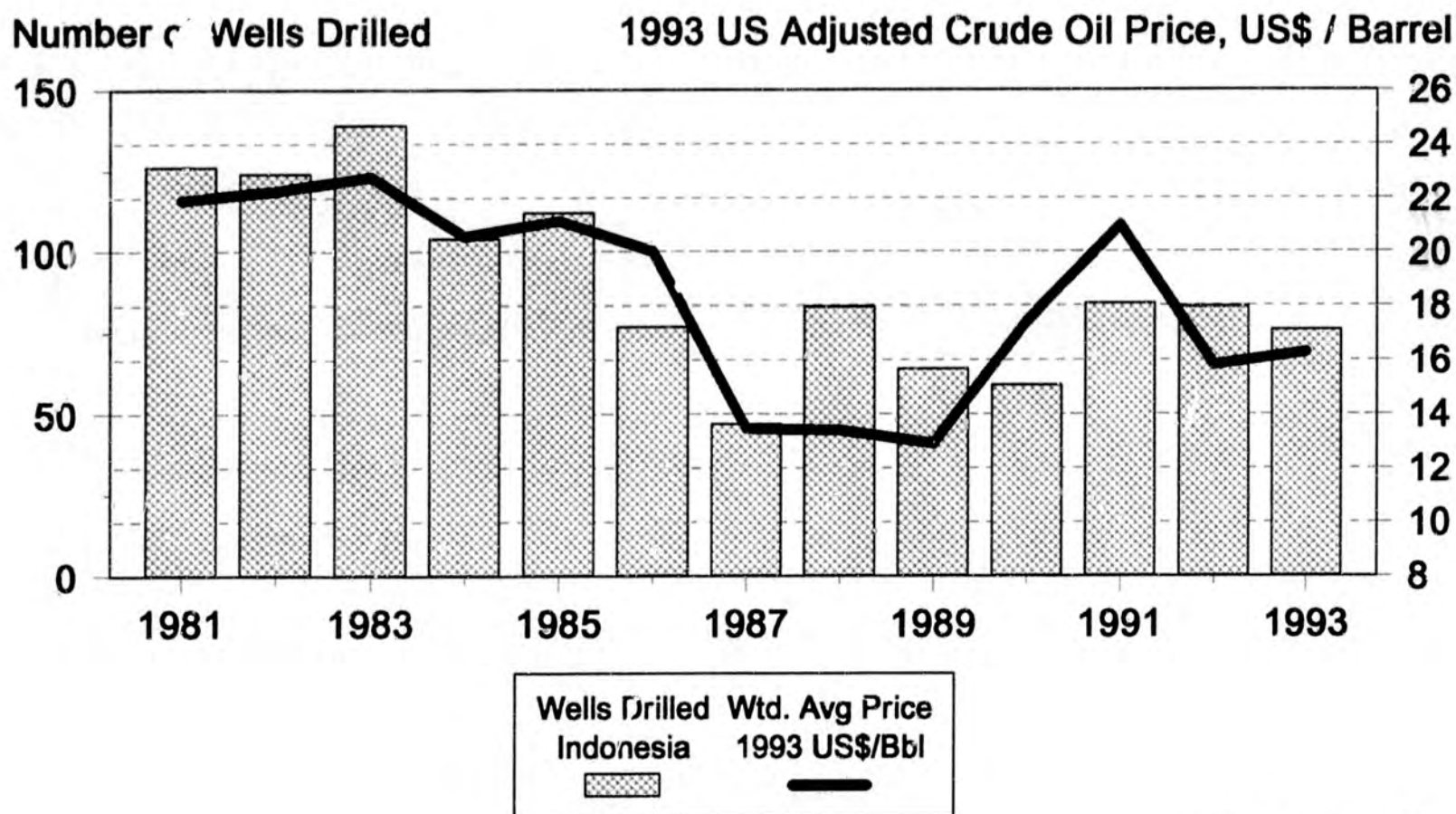


Wells EA Wtd. Avg Price
Alaska 1993 US\$/Bbl



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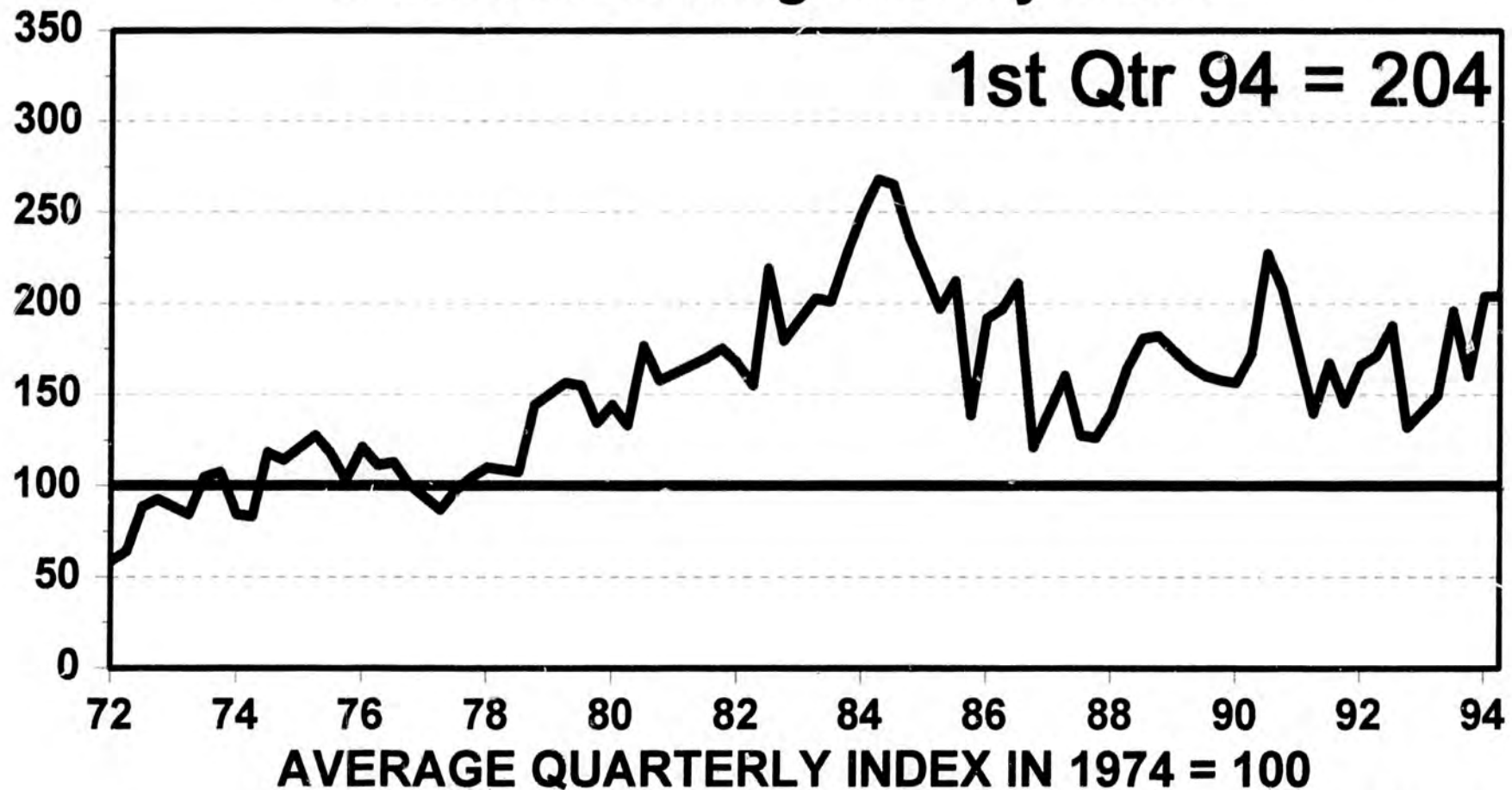
Indonesia Exploration Drilling & Weighted Average Crude Oil Price (1993 USD)



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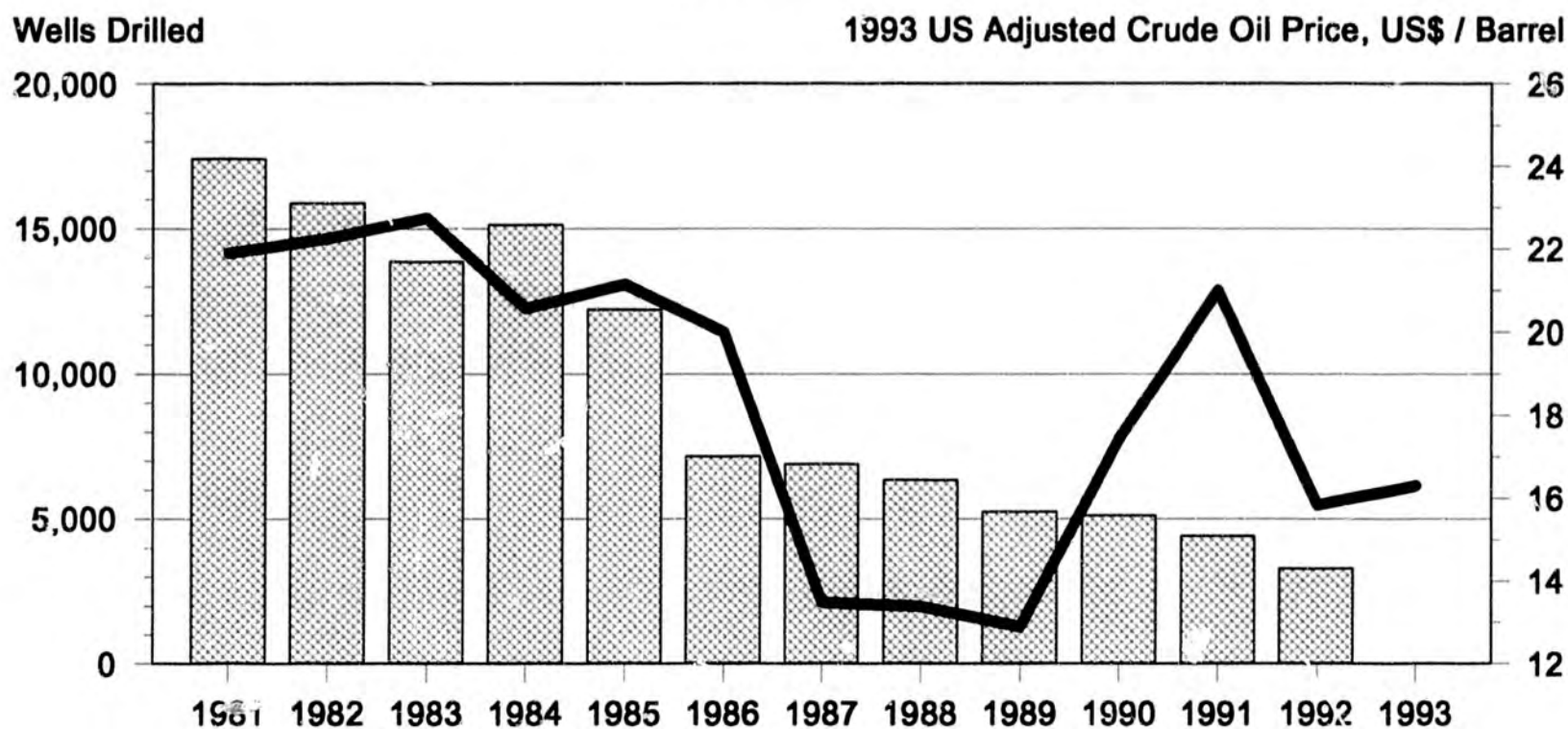
ASIA-PACIFIC

Offshore Drilling Activity Index



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U.S. Lower 48 E and A Drilling & Weighted Average Crude Oil Price (1993 USD)

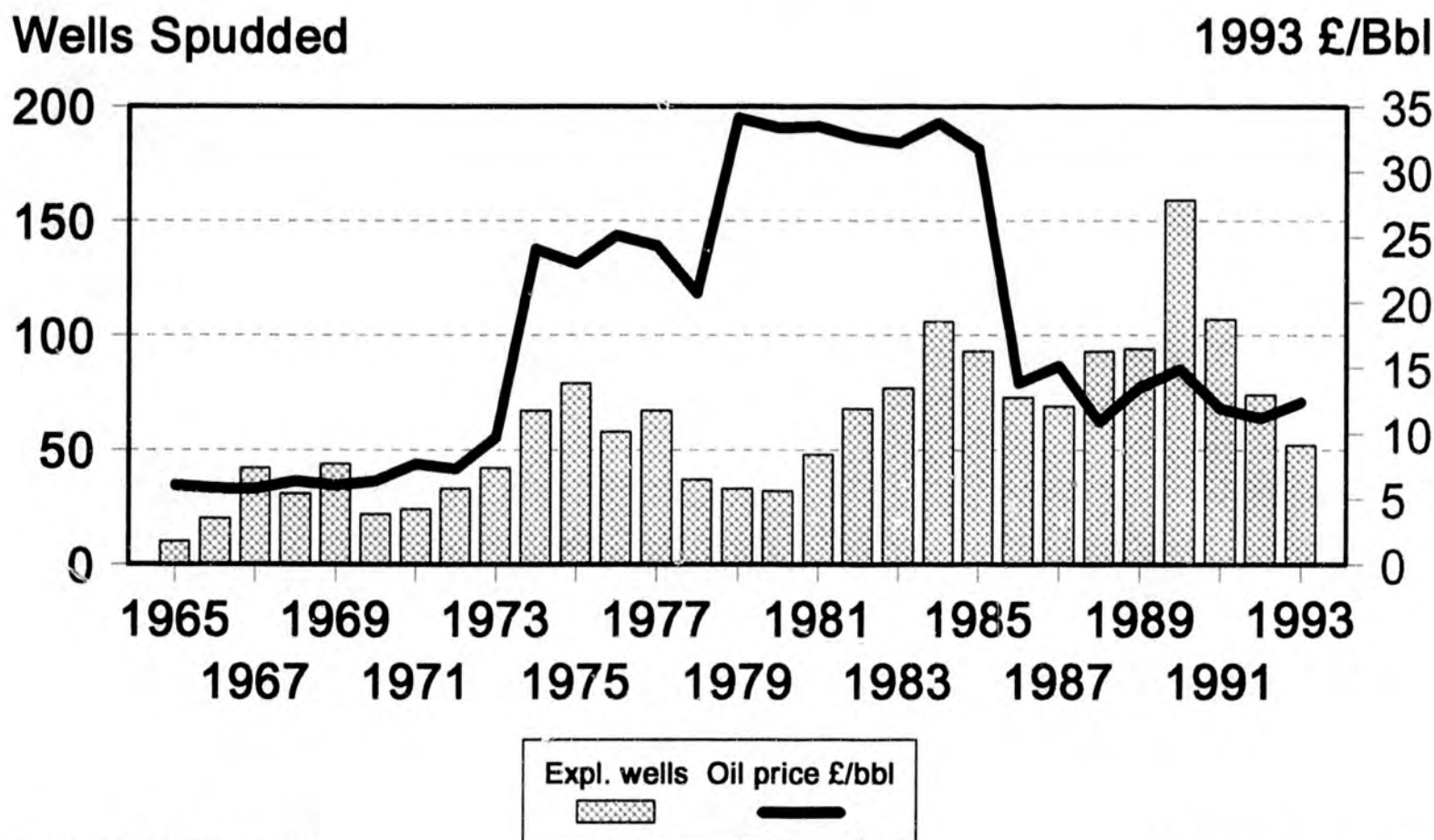


Wells Drilled Wtd. Avg Price
U.S. Lwr 48 1993 US\$/Bbl



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Exploration Drilling Activity UKCS

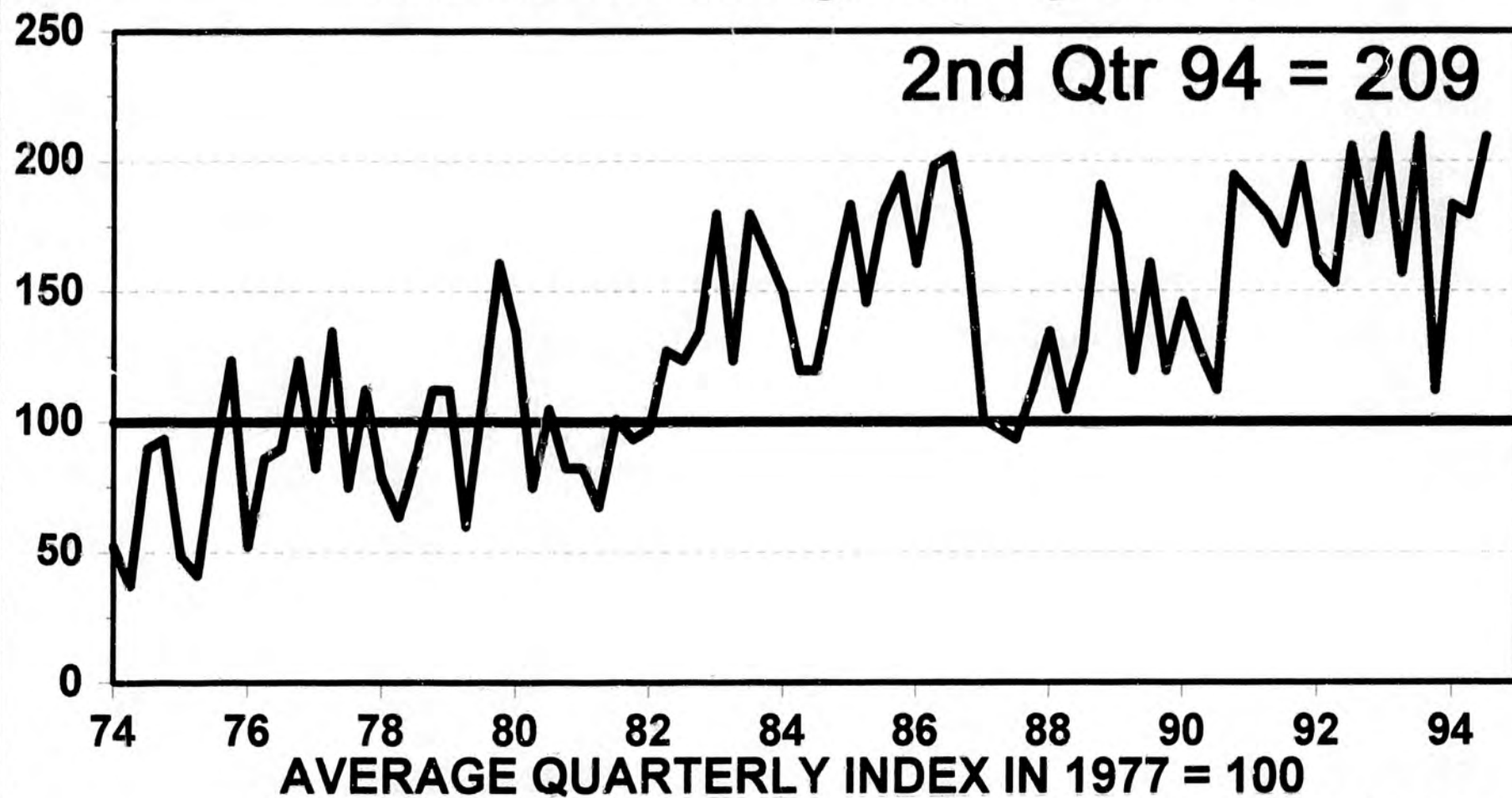


Sources : DOE/BP/RPI

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EUROPE

Offshore Drilling Activity Index

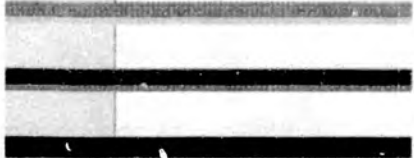


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Perceptions of Alaska

- ▶ Majors only need apply
- ▶ **Big oil but ultra-high cost environment**
- ▶ Fiscal conditions tough under low price conditions
- ▶ **Significant environmental hurdles**
- ▶ Geology good but not spectacular
- ▶ **More competition getting more competitive**

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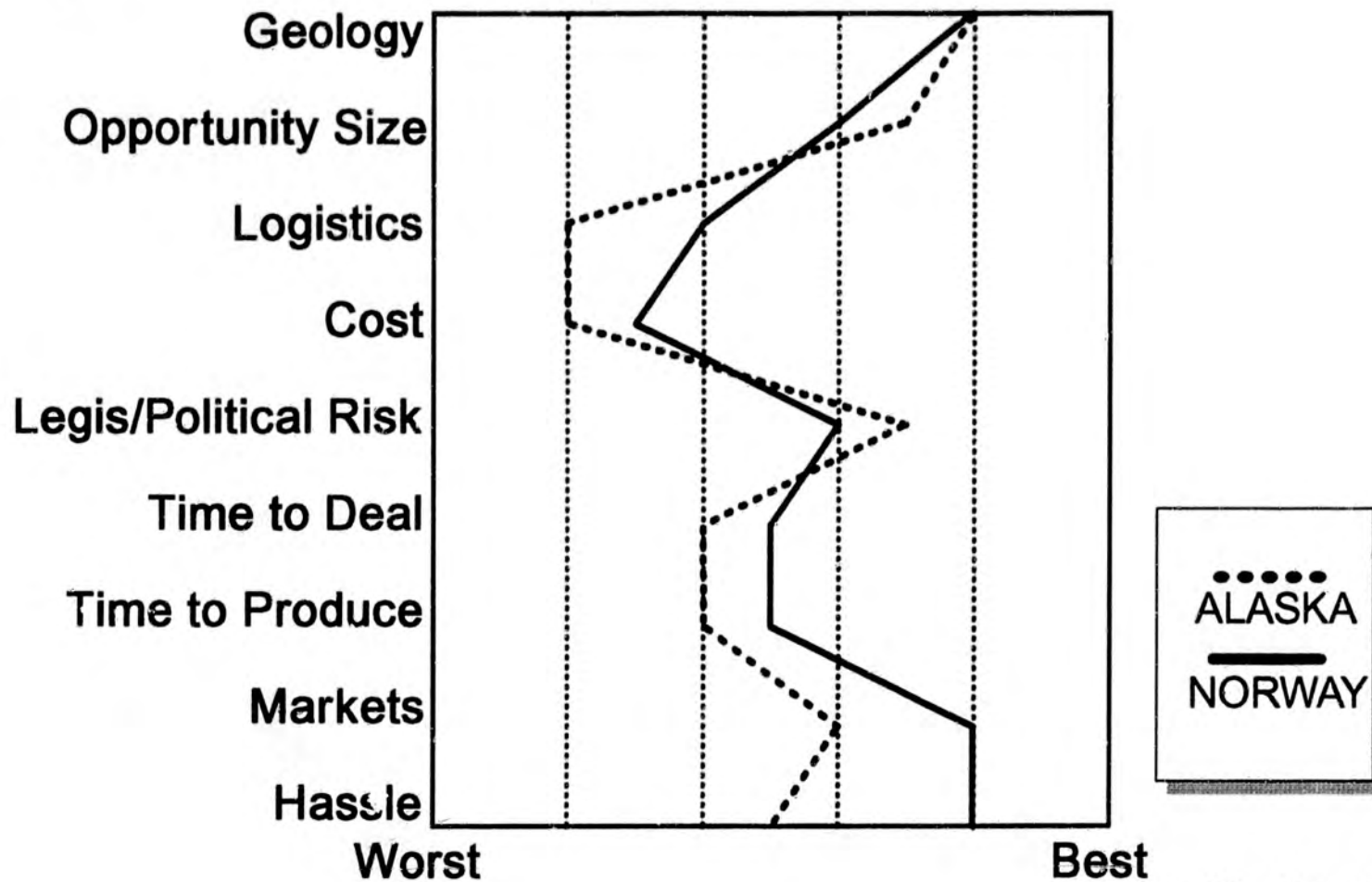
E&P Decision Criteria

- ▶ **Geology**
- ▶ **Opportunity Size**
- ▶ **Logistics**
- ▶ **Costs**
- ▶ **Legislative/Political Risk**
- ▶ **Time to a Deal**
- ▶ **Time to First Production**
- ▶ **Markets**
- ▶ **The Hassle Factor**

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PERCEPTIONS

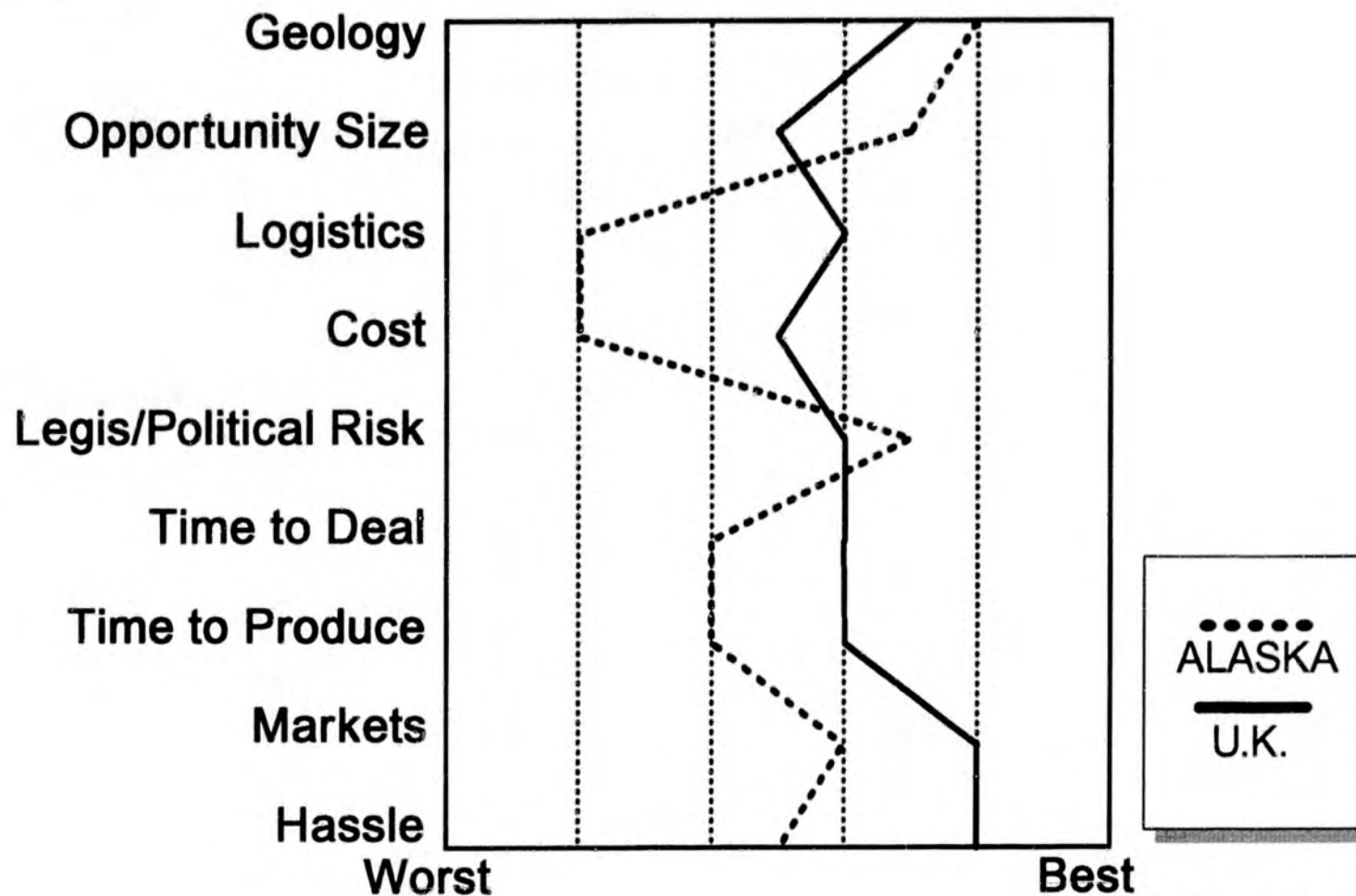
Norway vs. Alaska



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PERCEPTIONS

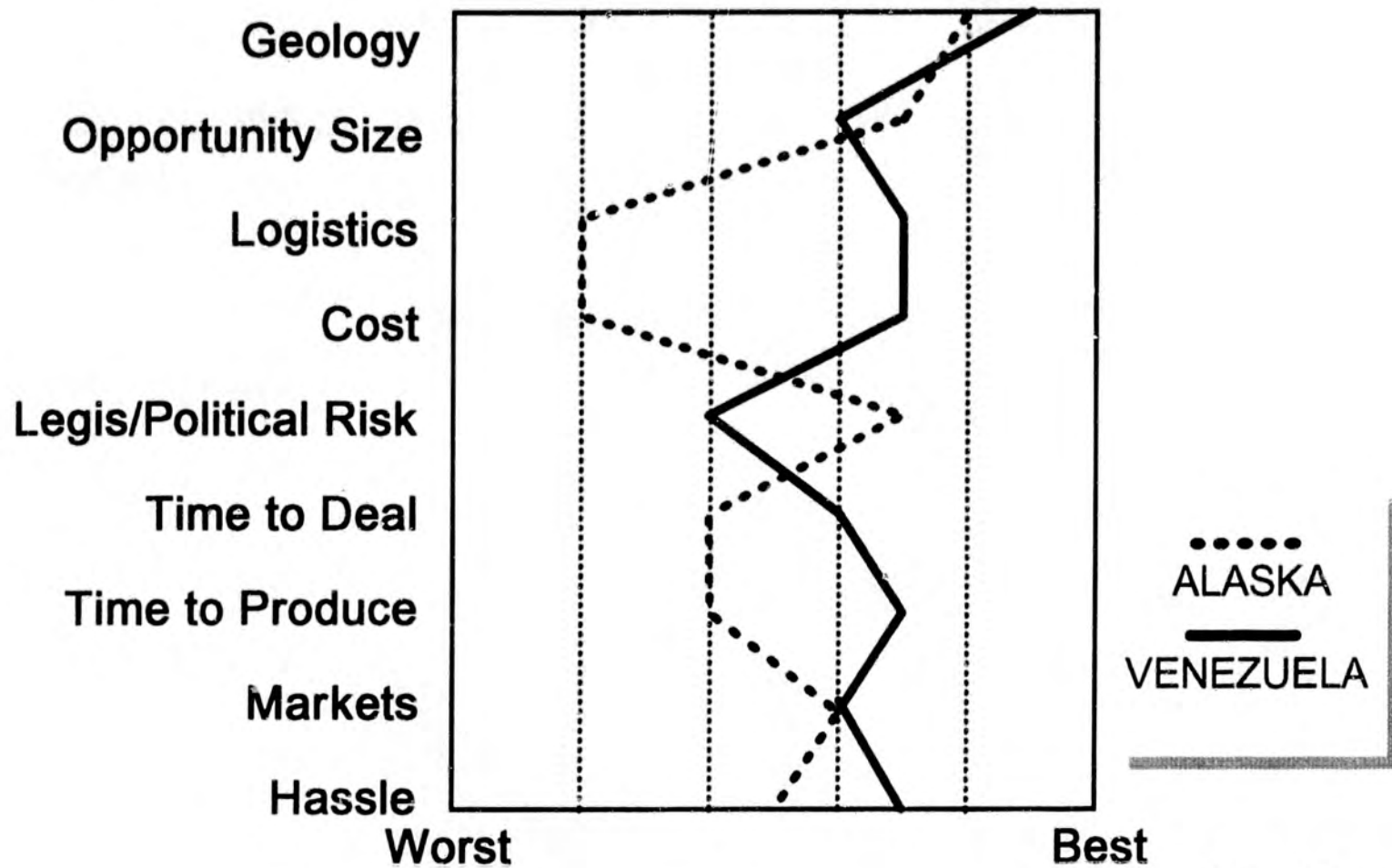
U.K. vs Alaska



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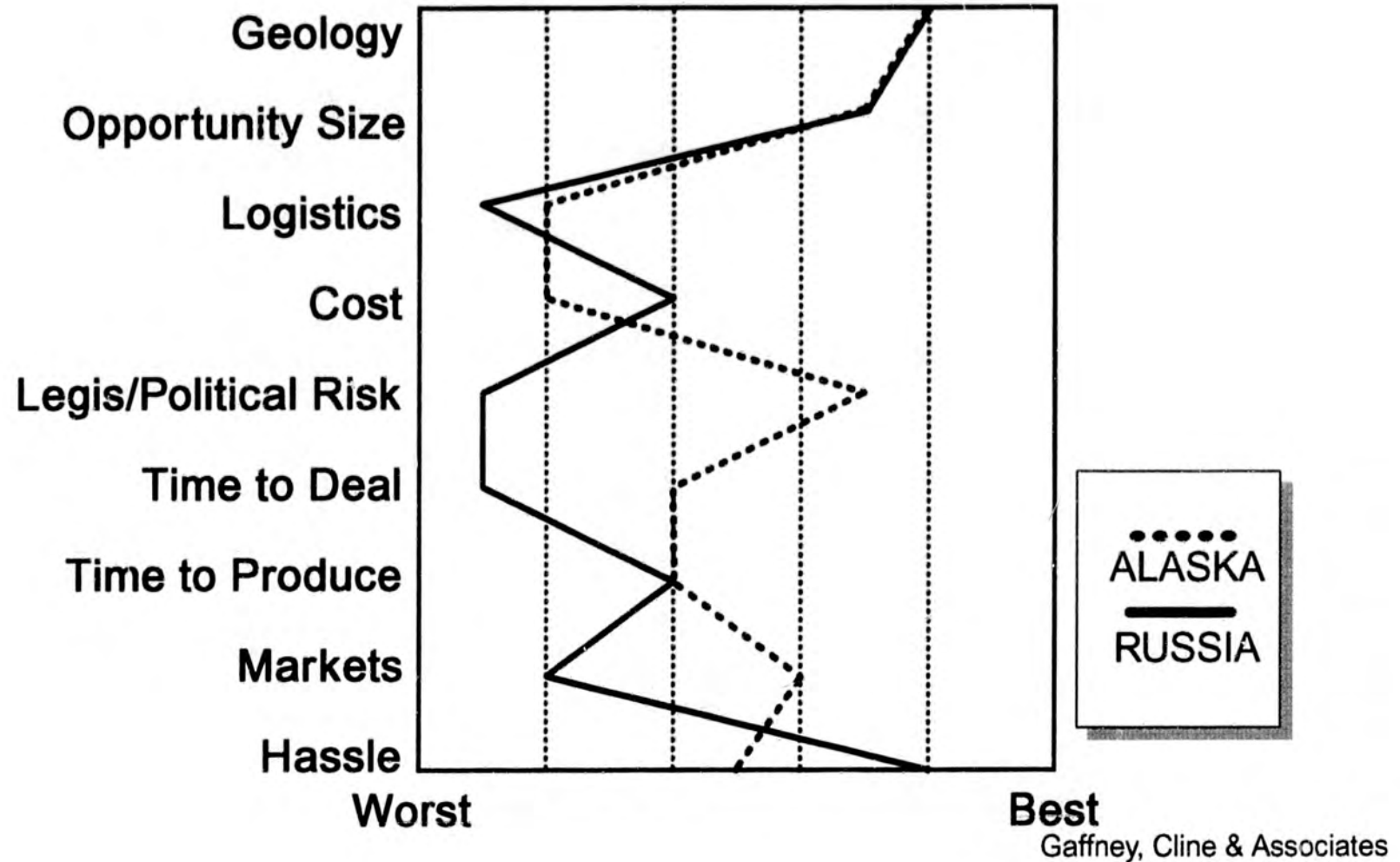
PERCEPTIONS

Venezuela vs. Alaska



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PERCEPTIONS Russia vs Alaska

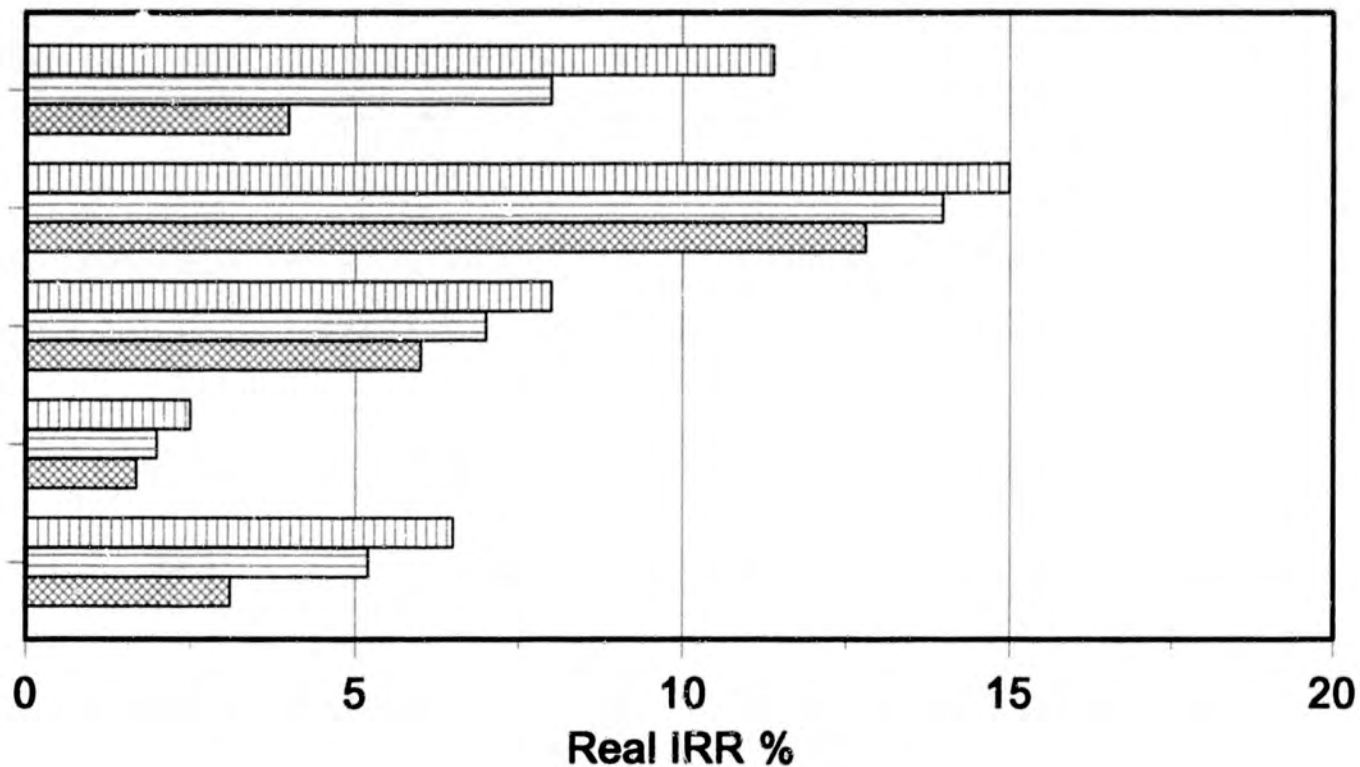


Fiscal Barriers and Incentives

- ▶ **Alaska economics highly leveraged**
 - ▶ **Higher Costs**
 - ▶ **Lower Prices**
- ▶ **Other Areas' terms improving**
 - ▶ **UK North Sea**
 - ▶ **Norway...**
 - ▶ **Venezuela**

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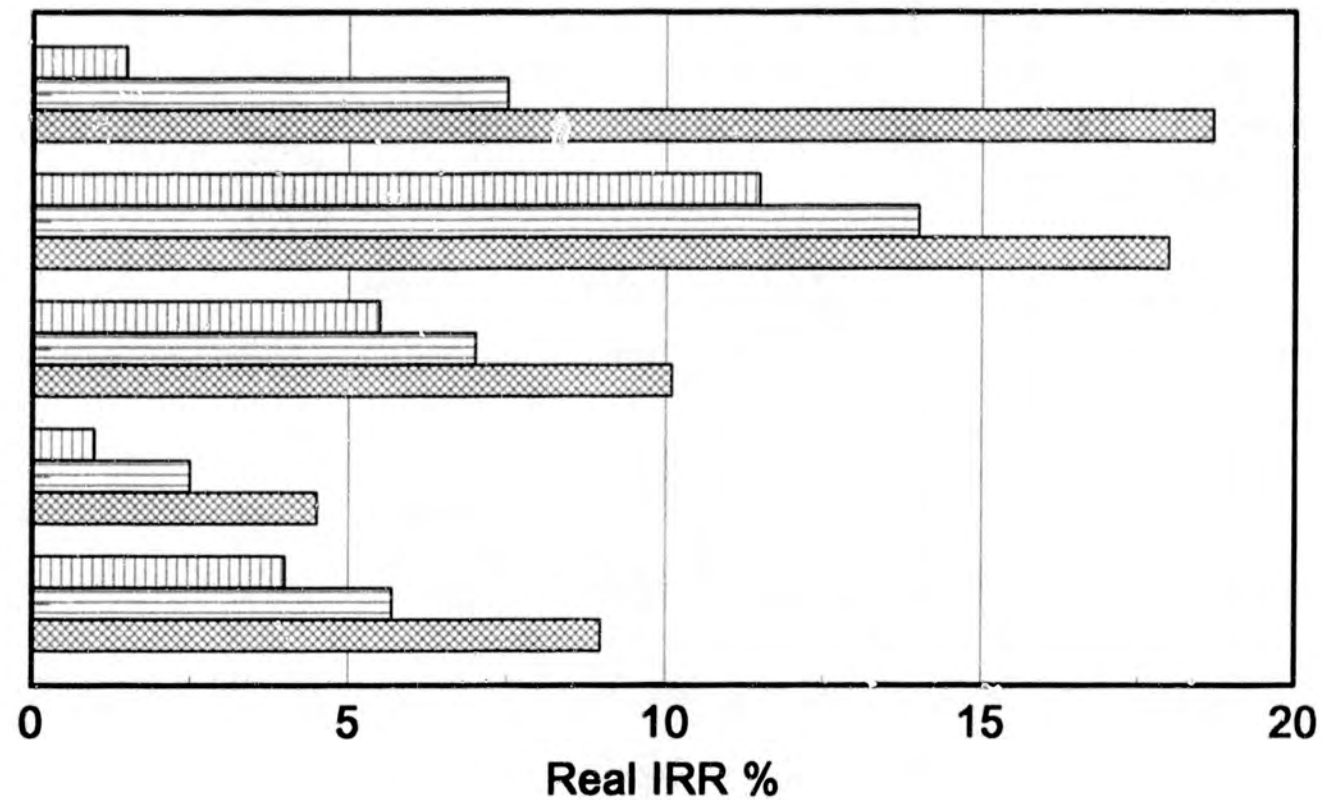
Company IRR % Real Niakuk Sensitivity to Costs



Lower Costs Base Hi Costs

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Company IRR % Real Niakuk Sensitivity to Oil Price



Lower Price Base Hi Price

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Alaska Economics

- Alaska Costs

200 MMbbl Field (Price Sensitivity Cases)

- \$5.00/bbl Capex
 - \$3.25/bbl Opex
 - \$5.00 Transportation
-) \$8.25/bbl

- Alaska Reduced Costs

200 MMbbl Field (ROR only Comparison)

- \$4.10/bbl Capex
 - \$3.25/bbl Opex
 - \$3.00 Transportation
-) \$6.25/bbl

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Alaska Economics

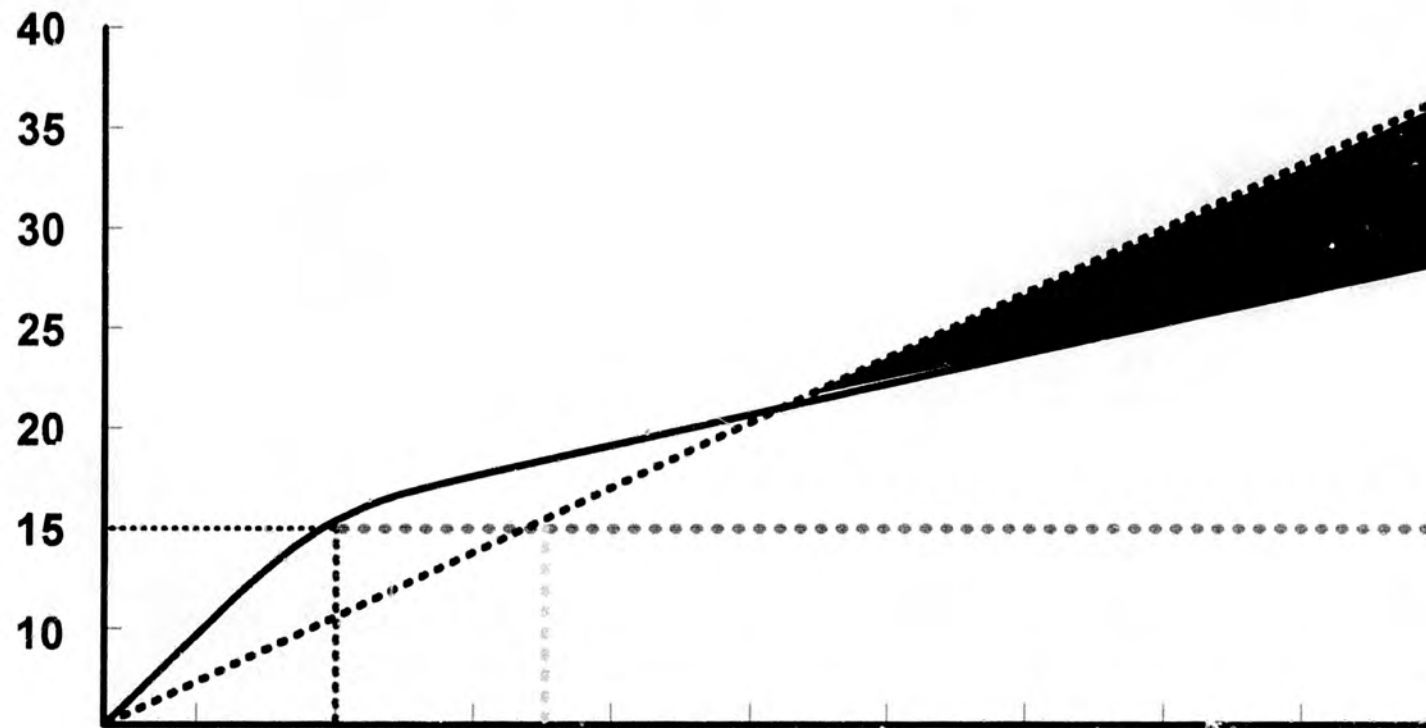
- \$18/bbl Oil
- 4% Price, Cost Inflation
- Tested Against Legislation
 - U.K.
 - Norway
 - Australia
 - Venezuela
- Full Corporate Tax (In All Cases)

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Contractor Economics

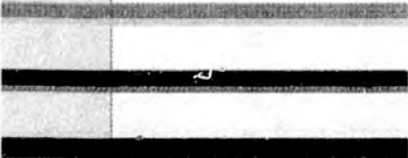
Retaining Economic Rent vs. Lowering Economic Threshold

Rate of
Return



Field Size

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Regulatory Barriers and Incentives



- ▶ **Labyrinth of Regulatory Agencies/Bodies**
- ▶ **Federal and State oversight**
- ▶ **Powerful Environmental Groups**
- ▶ **Judiciary Involvement**
- ▶ **ANS Export Bans**
- ▶ **Lease Bonus System**

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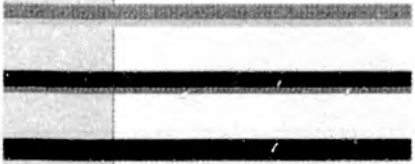


Alaska's Advantages



- ▶ **Political/Legislative Stability**
 - **Too much stability = inflexibility**
- ▶ **Currency Stability/Liquidity**
 - **Precluded from highest value market**
- ▶ **Prospectivity**
 - **At a price**
- ▶ **Transparency of Process**
 - **But multiple variables and control points**

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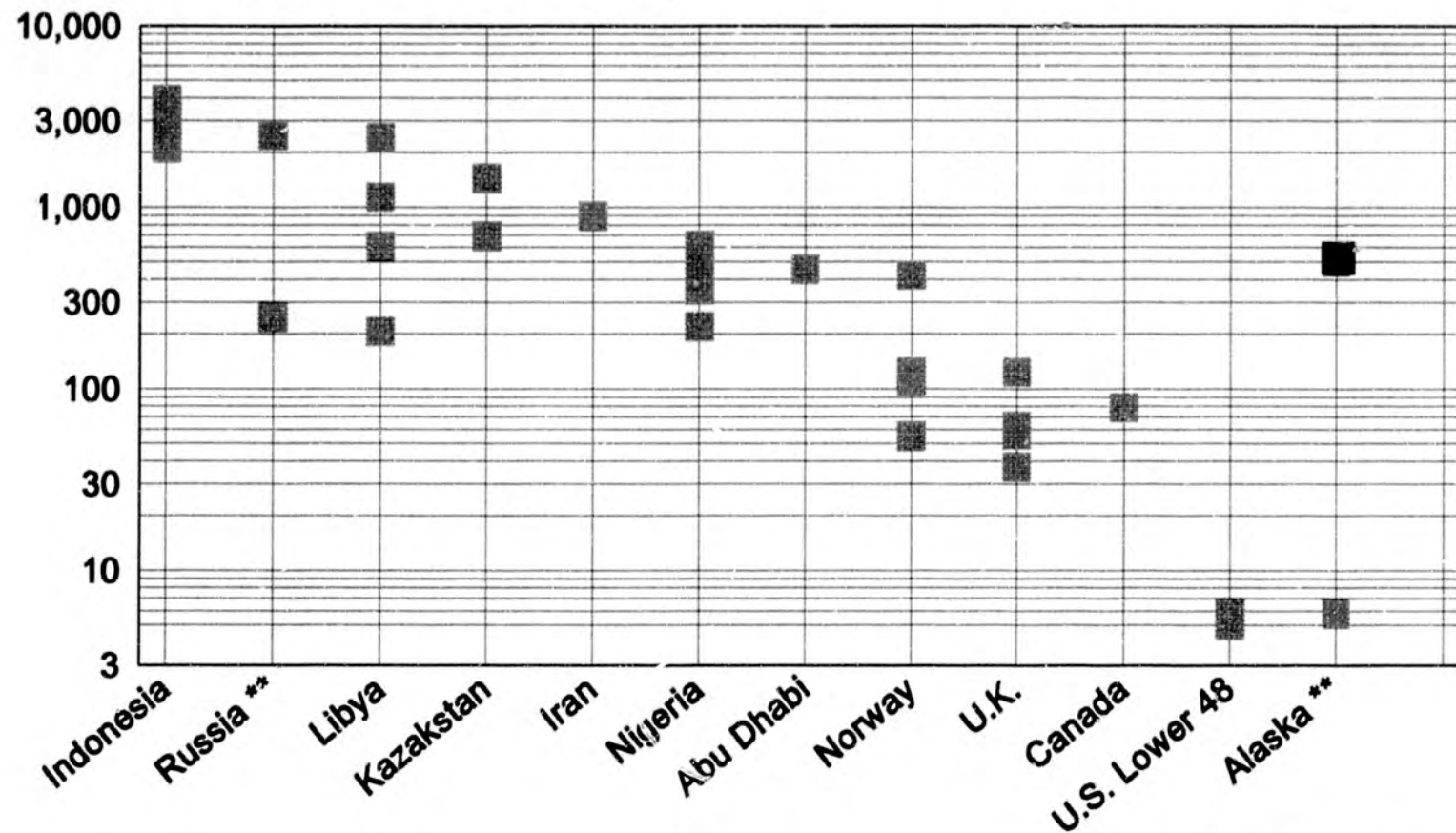
Current Initiatives

- ▶ **Large Block Concession proposal**
 - **Work Commitment**
 - **Block Size**
 - **Relinquishment**
- ▶ **Exploration Incentive Credits**

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License Area By Country

Block Size (Thousands of Acres)



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Conclusions

- ▶ Other areas aggressively competing for industry's investment and risk capital
 - UK
 - Venezuela
 - Indonesia

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Conclusions

- ▶ High geologic promise offset by:
 - High costs
 - Low value production
 - Powerful Environmental groups
 - Closed industry structure
 - Regressive tax system
 - Litigious State government
- ▶ Large natural gas resource

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Conclusions

- ▶ Recent positive steps:
 - Large block leasing
 - Exploration incentives
 - Much improved relationship and cooperation between state and industry
 - Growing awareness of the competition problem

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Observation

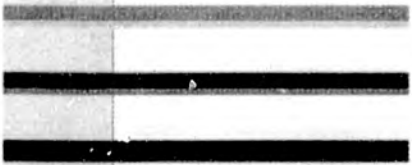
Regardless of oil price future ***now*** is the time to initiate changes that will lower economic threshold and retain higher levels of economic rent from a larger number of projects and developments

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Recommendations

- ▶ Industry Administrator
- ▶ Wider industry contact and participation
- ▶ Re-assess fiscal and licensing terms and regulatory processes
 - Undeveloped discoveries
 - More fiscally progressive
- ▶ Get/keep the Federal ear

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Recommendations



- ▶ Industry should re-assess its public policy handling in the state
- ▶ Seek common ground between industry and state

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State-Industry Relationship

Some of the difficulty is the natural product of the era in which the industry grew...

- Oil Shocks
- Nationalism
- Producer vs Consumer

... and is maintained by the normal term-rotation of state governments and oil companies...

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Industry Awareness

▶ UK DTI

- 6 years minimum industry experience
- 12-18 months secondment with operating companies after 10 years
- Policy stresses involvement and relationships

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Other Considerations

- ▶ **Costs are the single biggest barrier**
- ▶ **Broadening the Appeal of Alaska**
 - **Road Show**
 - **New Entrant vs. Existing Player**
- ▶ **North Slope Inc.**
 - **"Stringing Pearls"**
 - **TAPS throughput thresholds**
- ▶ **The Natural Gas Resource**

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Perceptions of Alaska

Alaska Oil and Gas Market Research Project



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