



*World Resources  
Institute*

# **Emerging Environmental Risks and Disclosure in the Oil and Gas Sector**

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# Overview

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- Are emerging environmental issues relevant for determining shareholder value in the oil and gas sector?
- Are companies disclosing sufficient information to investors on these issues?

# Determining the Financial Significance of Environmental Issues

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- WRI has developed a methodology to evaluate the financial implications of pending environmental issues.
- The methodology is:
  - forward-looking
  - scenario-based
  - transparent
  - can be integrated into conventional valuation frameworks

# Five Steps to the Analysis

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1. Identify key environmental issues
2. Identify scenarios for key environmental issues
3. Assess company exposure to scenarios
4. Calculate financial impacts of company exposure
5. Aggregate financial impacts for all environmental issues

# Environmental Issues Facing Oil and Gas Sector

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- Many issues including clean fuel regulations, marine transport risks, hazardous waste problems etc.
- This study looks at 2 issues:
  - Climate Change
  - Constrained Access to Oil and Gas Reserves

# Companies Assessed

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- Amerada Hess
- Apache
- BP
- Burlington
- ChevronTexaco
- ConocoPhillips
- Eni
- Enterprise
- ExxonMobil
- Occidental
- Repsol
- Royal Dutch Shell
- Sunoco
- TotalFinaElf
- Unocal
- Valero

# **MEASURES TO AVERT CLIMATE CHANGE**

# How will Climate Policies Affect Companies?

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- **DOWNSIDE RISKS**

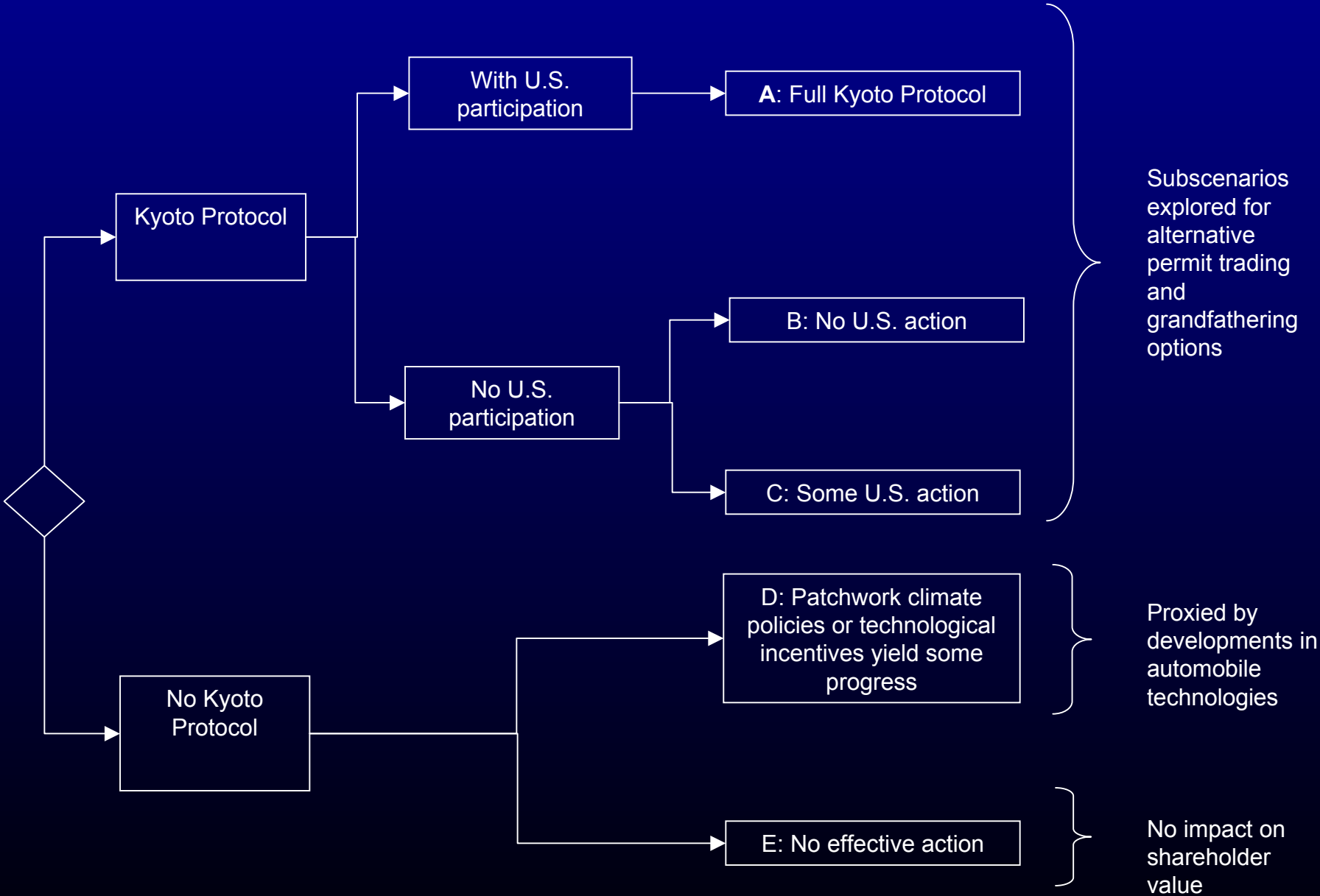
- Reduced demand for oil relative to ‘business as usual’
- Increased drilling and refining costs
- Possible requirements to purchase tradable permits
- Main impact will be felt on products

- **UPSIDE OPPORTUNITIES**

- Relative increase in demand for natural gas
- Possibility of grandfathered permits
- Growth of new business lines (e.g. renewables).



# Climate Scenarios

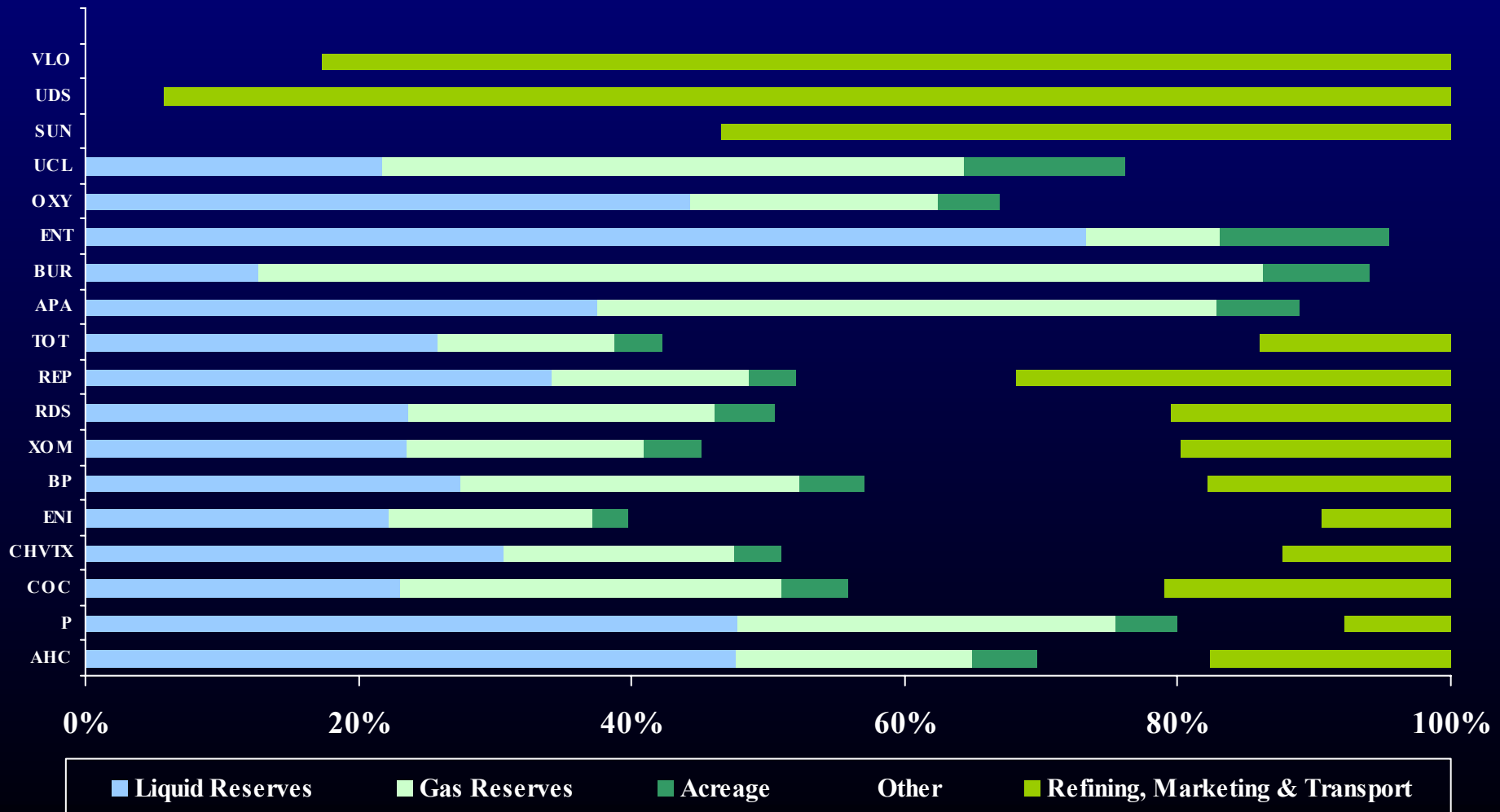


# Determinants of Company Exposure

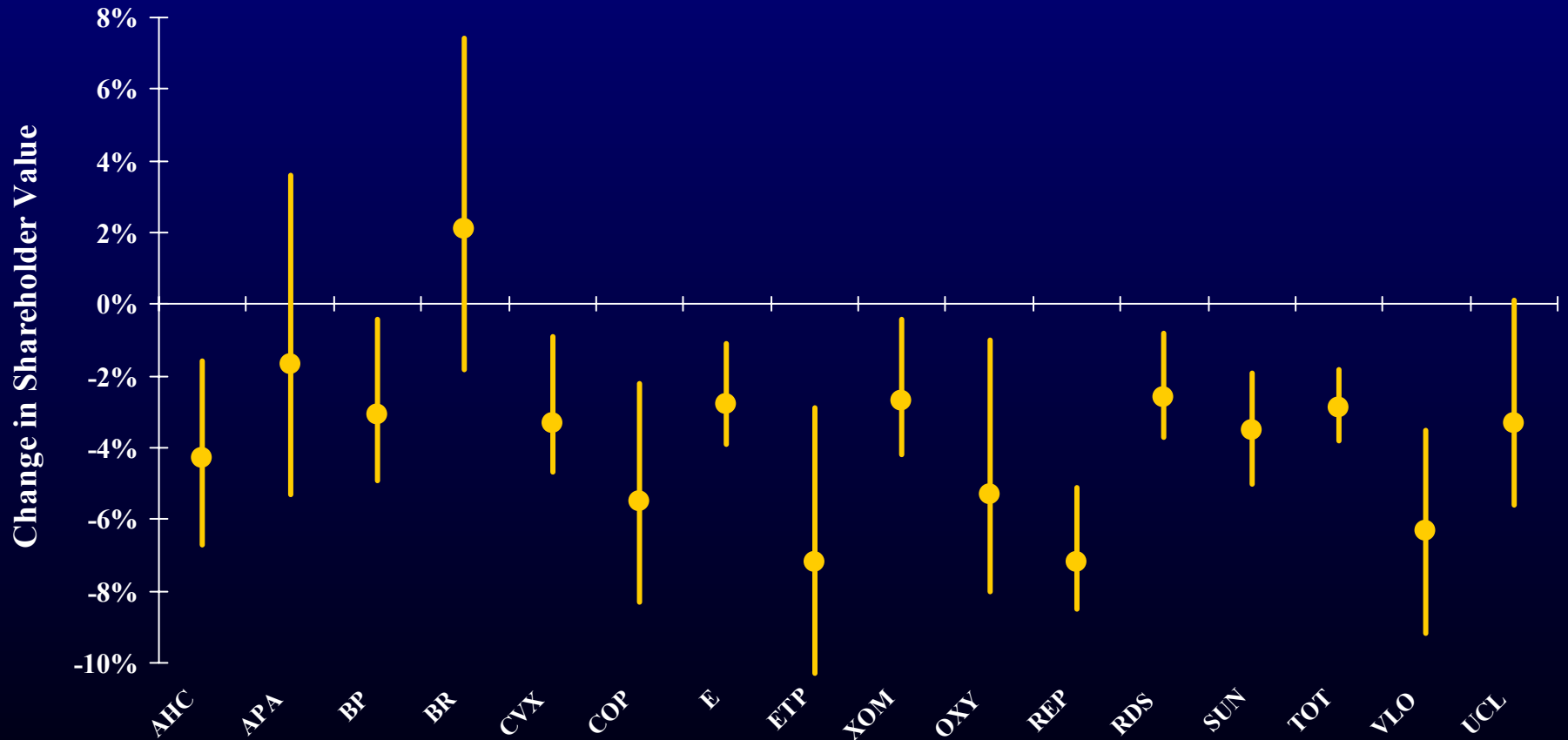
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- Companies will be exposed to climate pressures depending mainly on:
  - Oil-gas mix
  - Balance of upstream and downstream activities
  - Geographical distribution

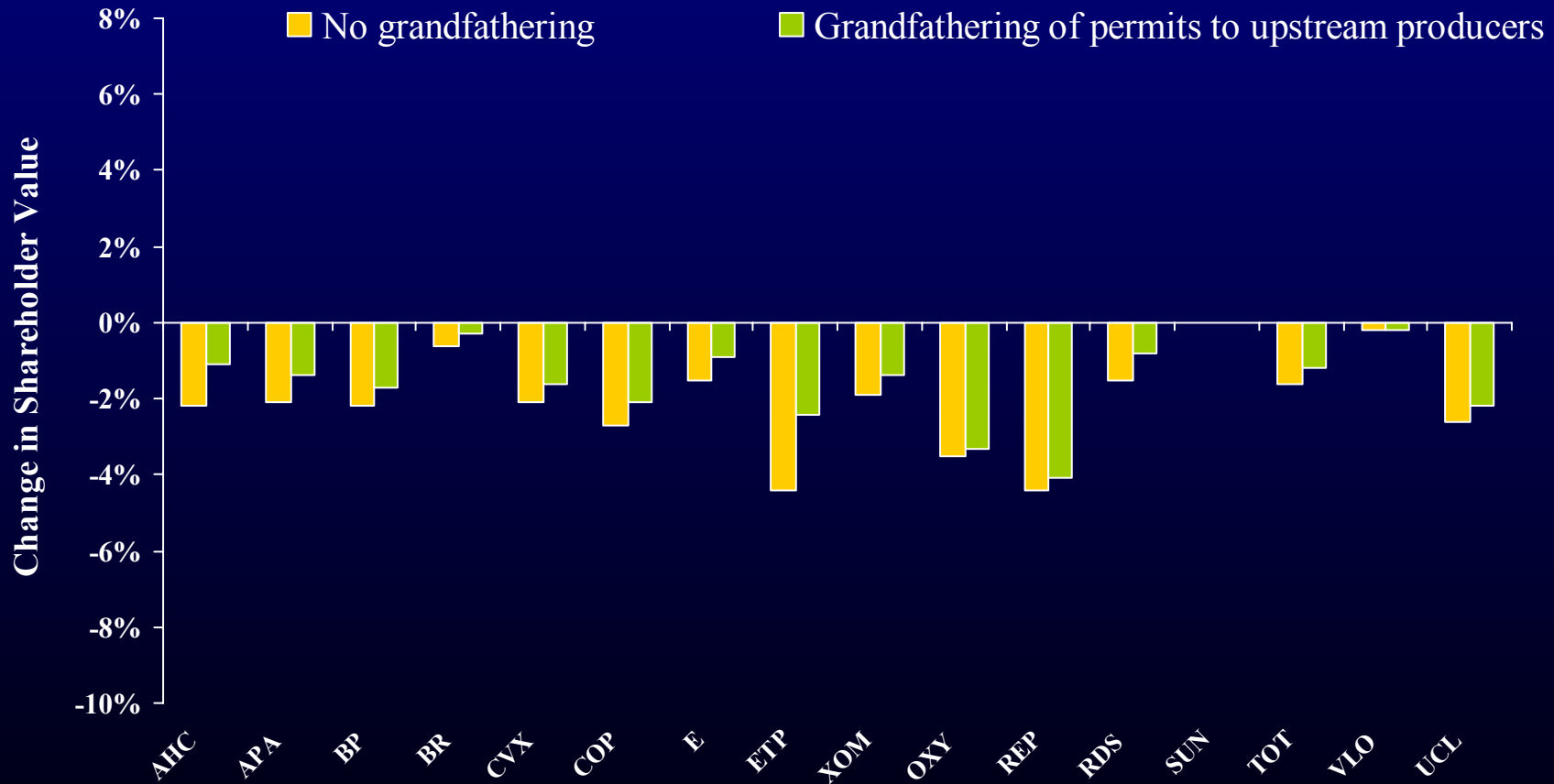
# Company Appraised Net Worth by Business Segment



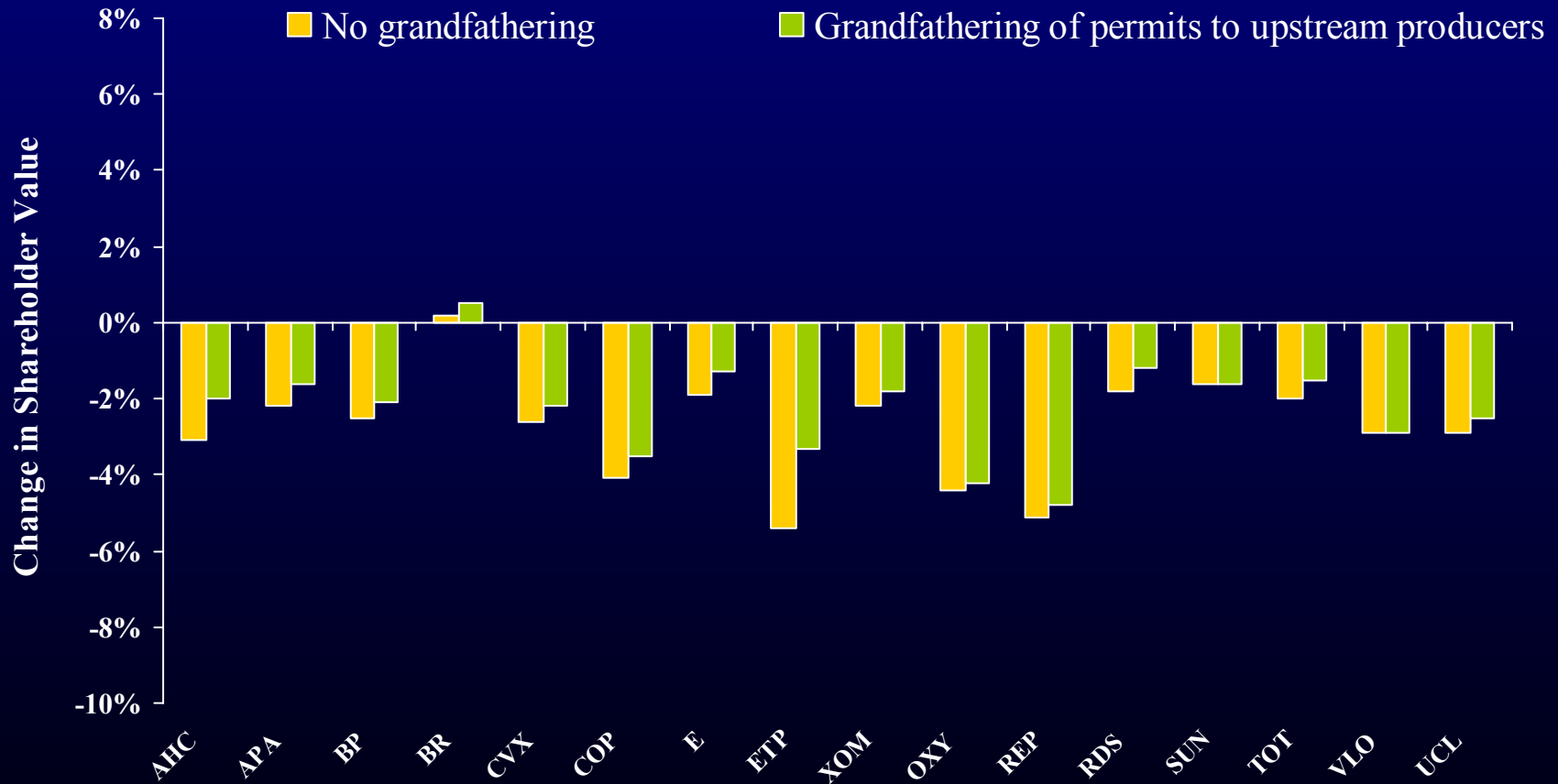
# Financial Impacts of Scenario A: Adoption of Kyoto Protocol



# Financial Impacts of Scenario B: Kyoto without the U.S. and no U.S. domestic action

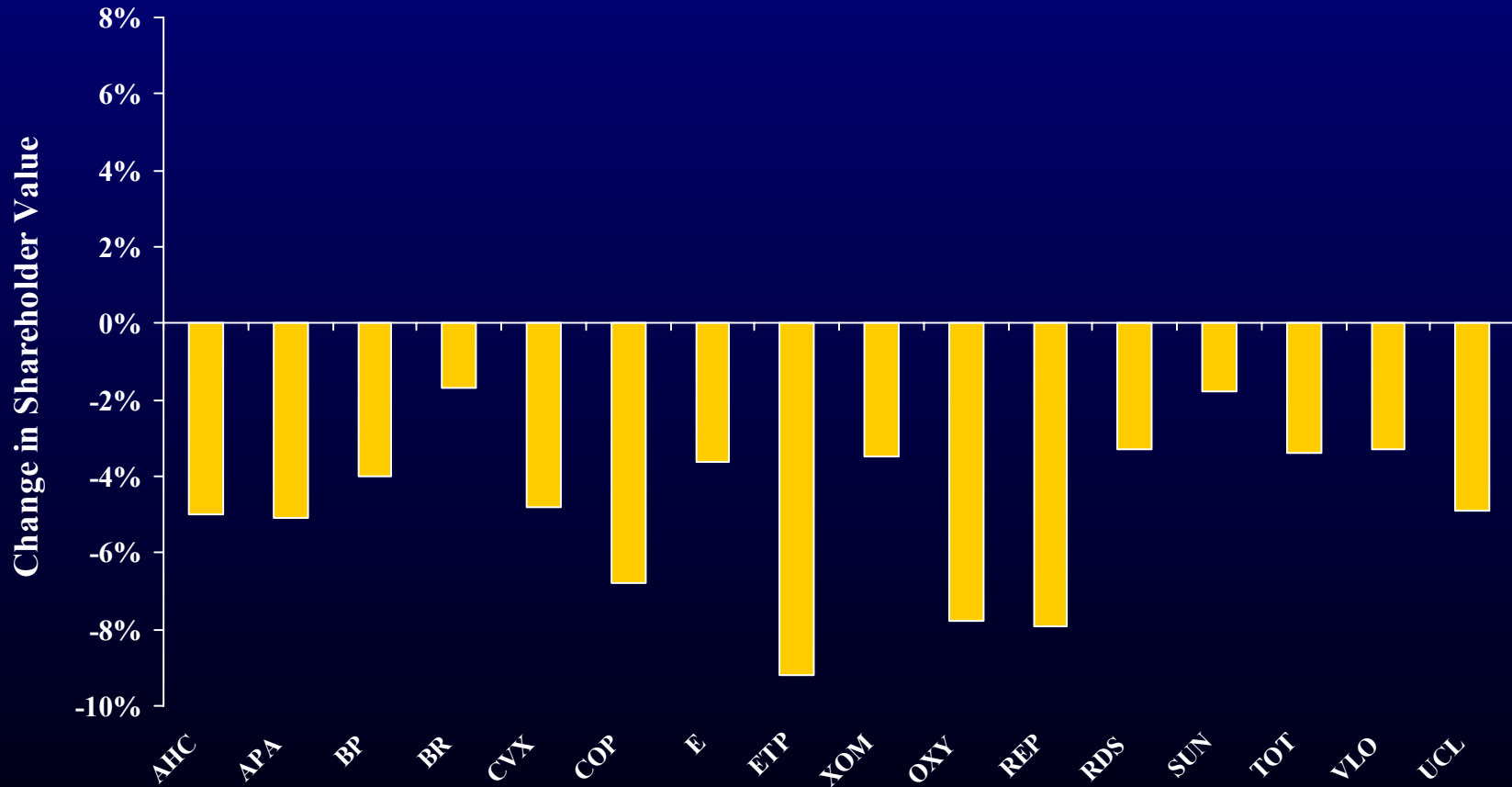


# Financial Impacts of Scenario C: Kyoto without the U.S. and some U.S. domestic action

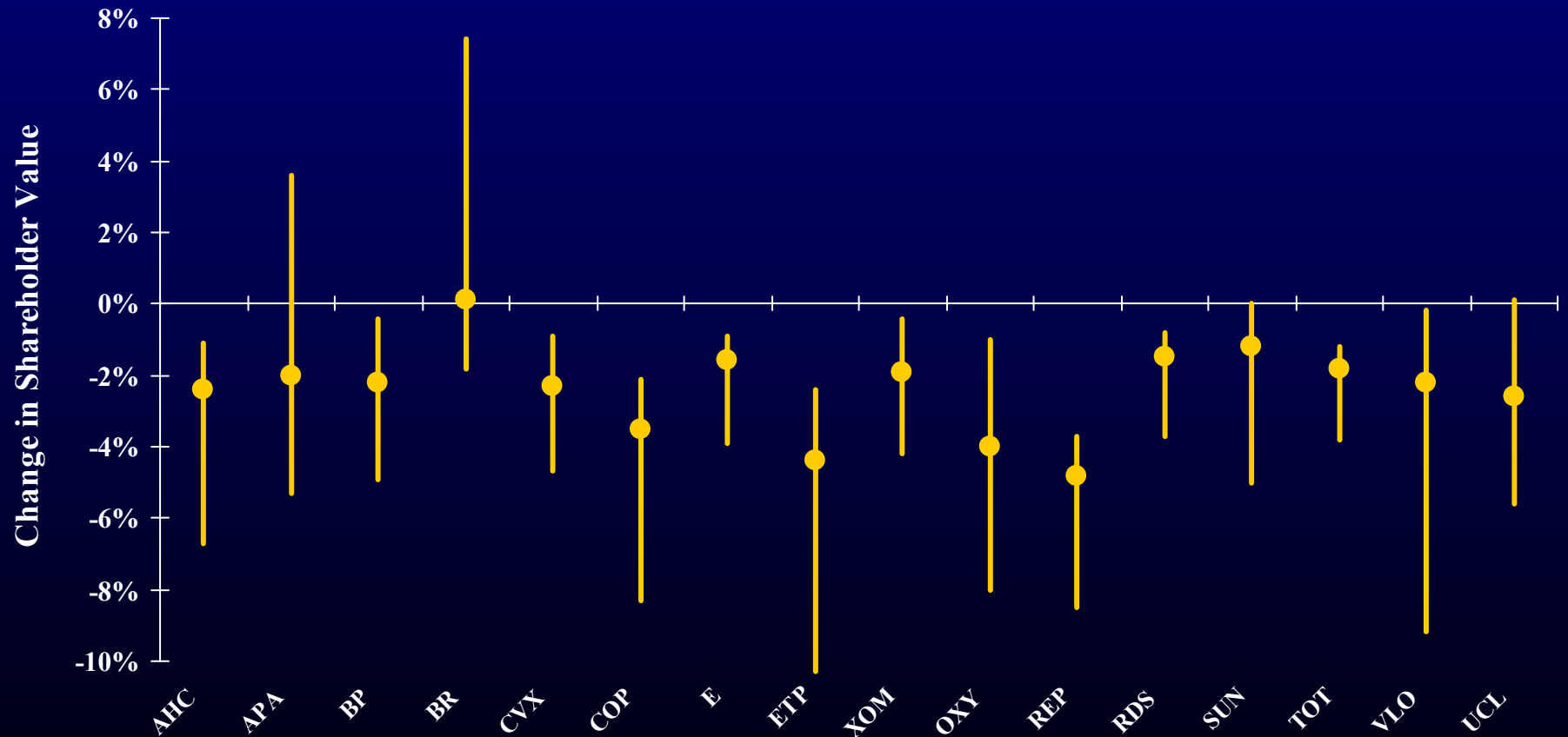


# Financial Impacts of Scenario D: Accelerated Introduction of New Automotive Technologies

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# Aggregate Financial Impacts for Climate Scenarios





# **CONSTRAINTS ON ACCESS TO OIL AND GAS RESERVES**

# How do access issues affect company profitability?

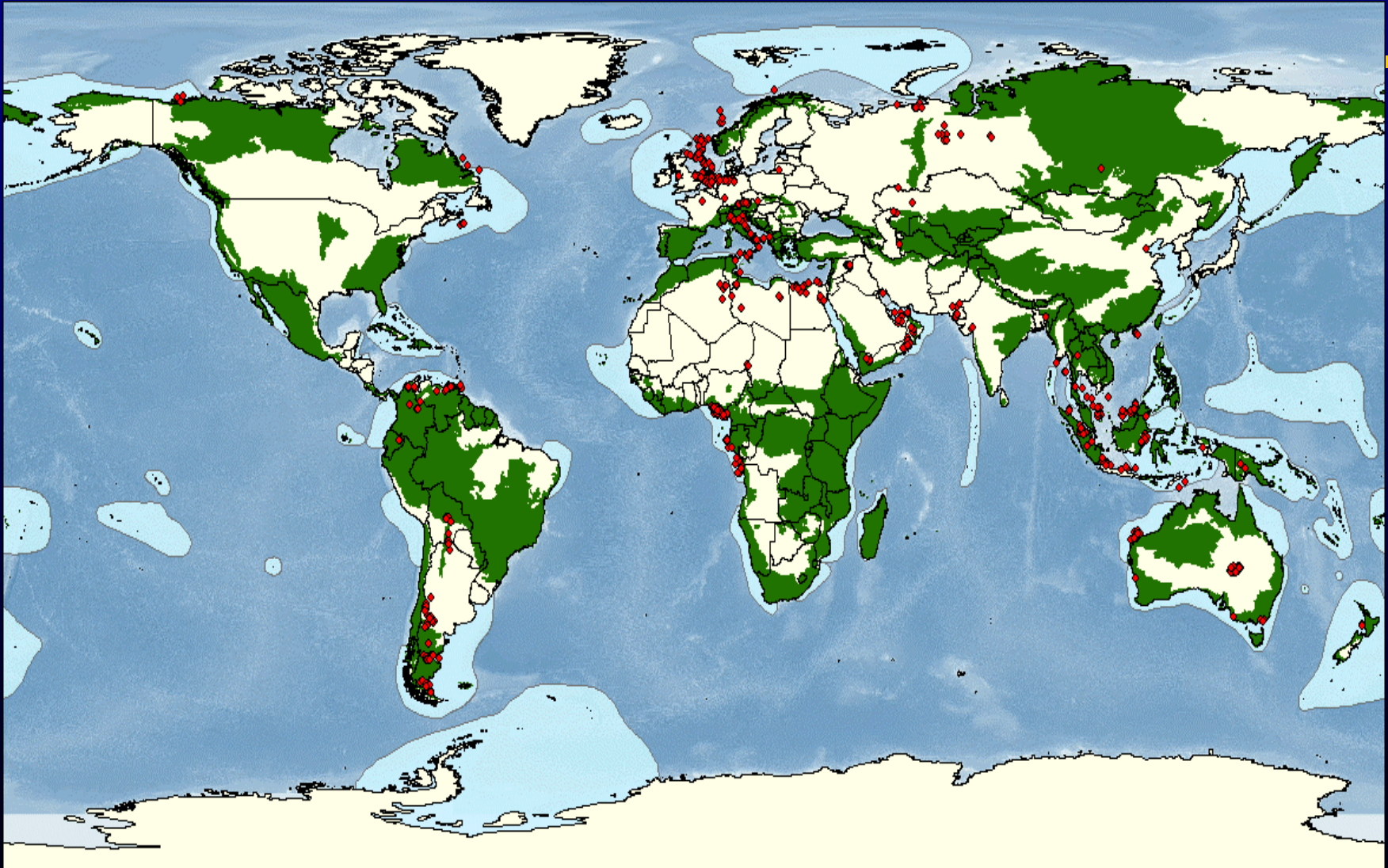
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- Financial implications include:
  - Reserves “off-limits”
  - Increase operating costs
    - higher operating standards
    - investments in local communities
  - Constrained production
    - effects of sabotage or labor strikes to reduce production output.

Global 200 - Terrestrial Ecoregion

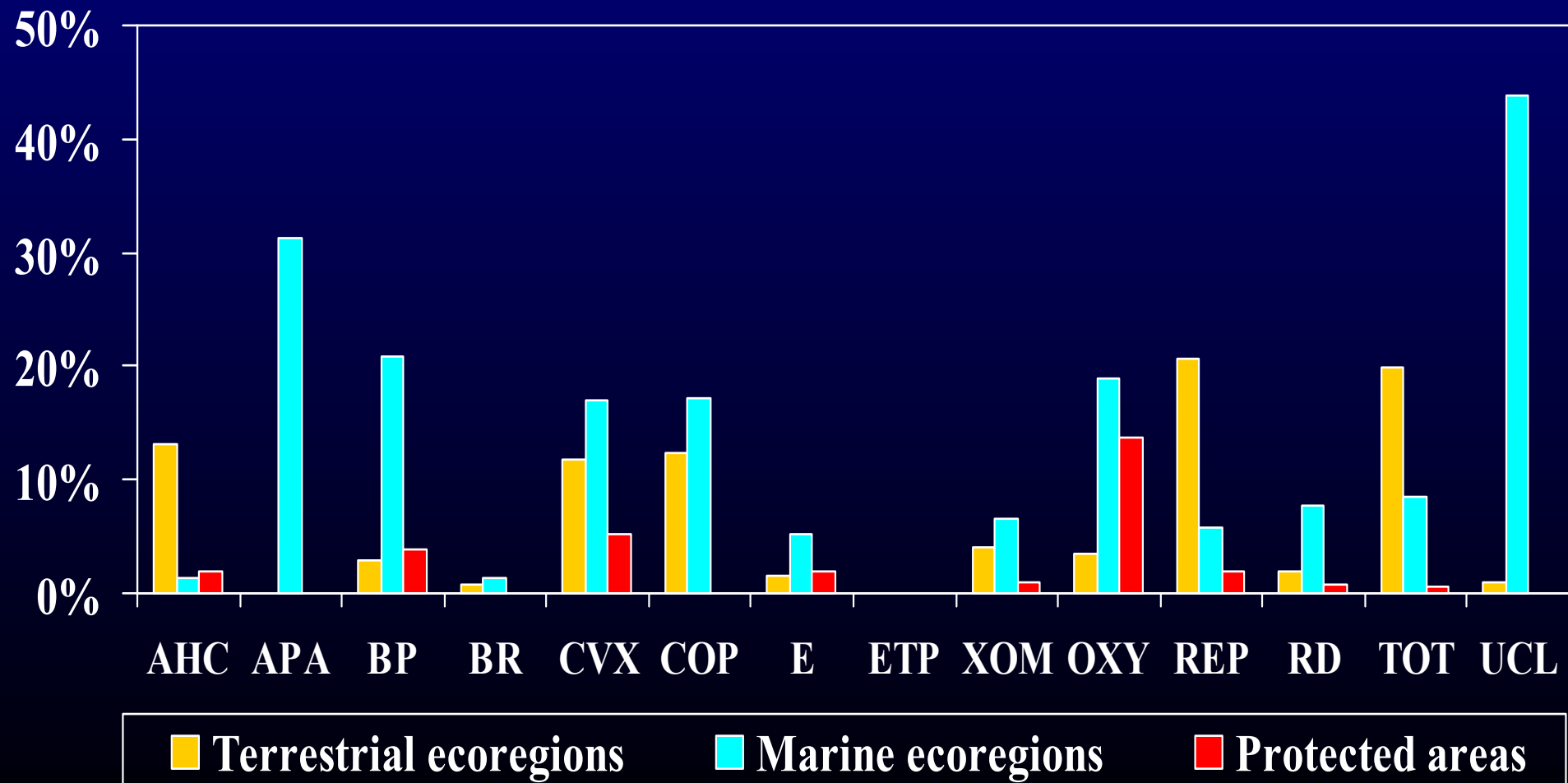
Global 200 - Marine Ecoregion

Chevron-Texaco



# Which companies are exposed to access issues?

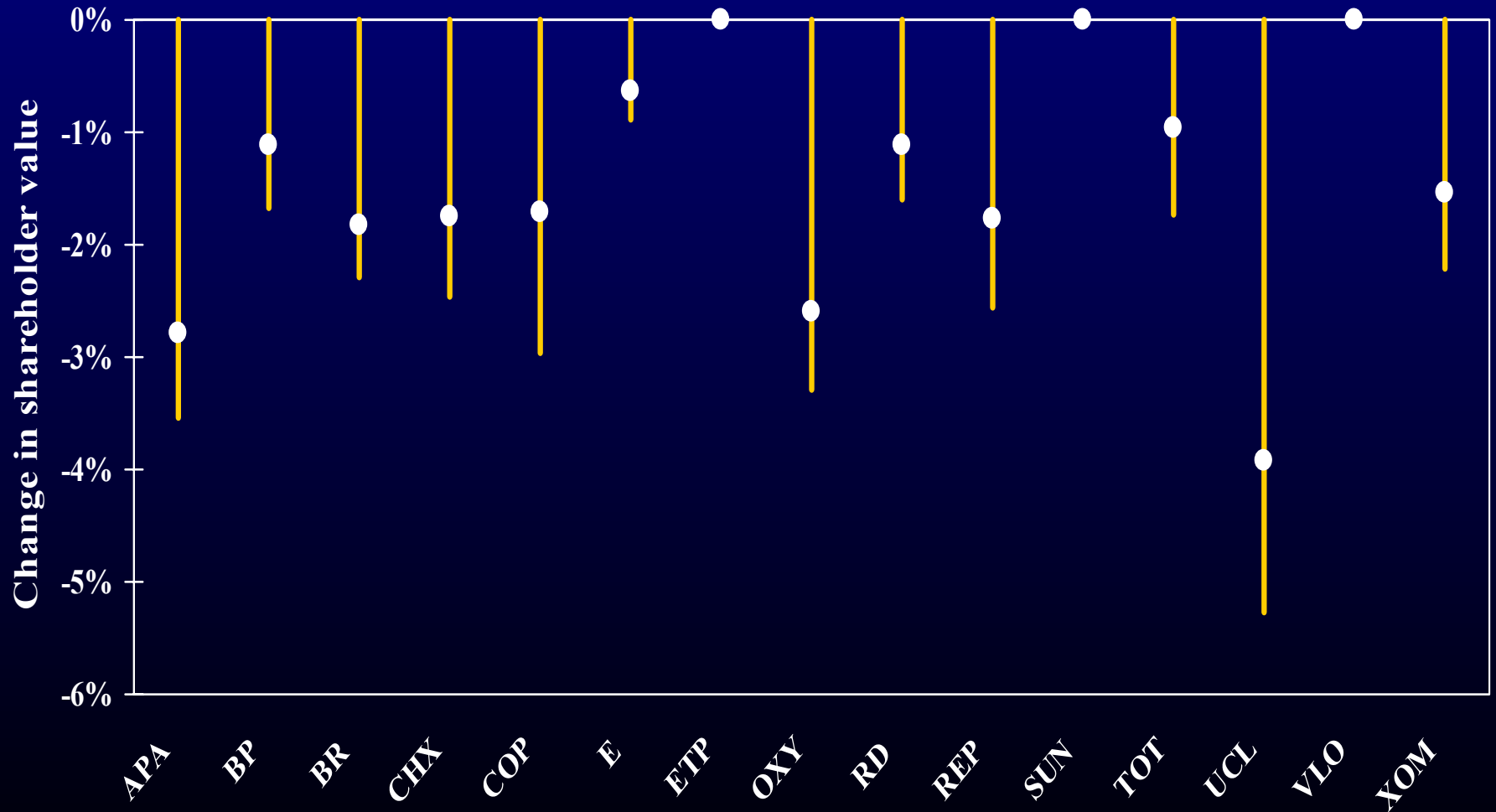
Percent of total reserves outside the U.S.



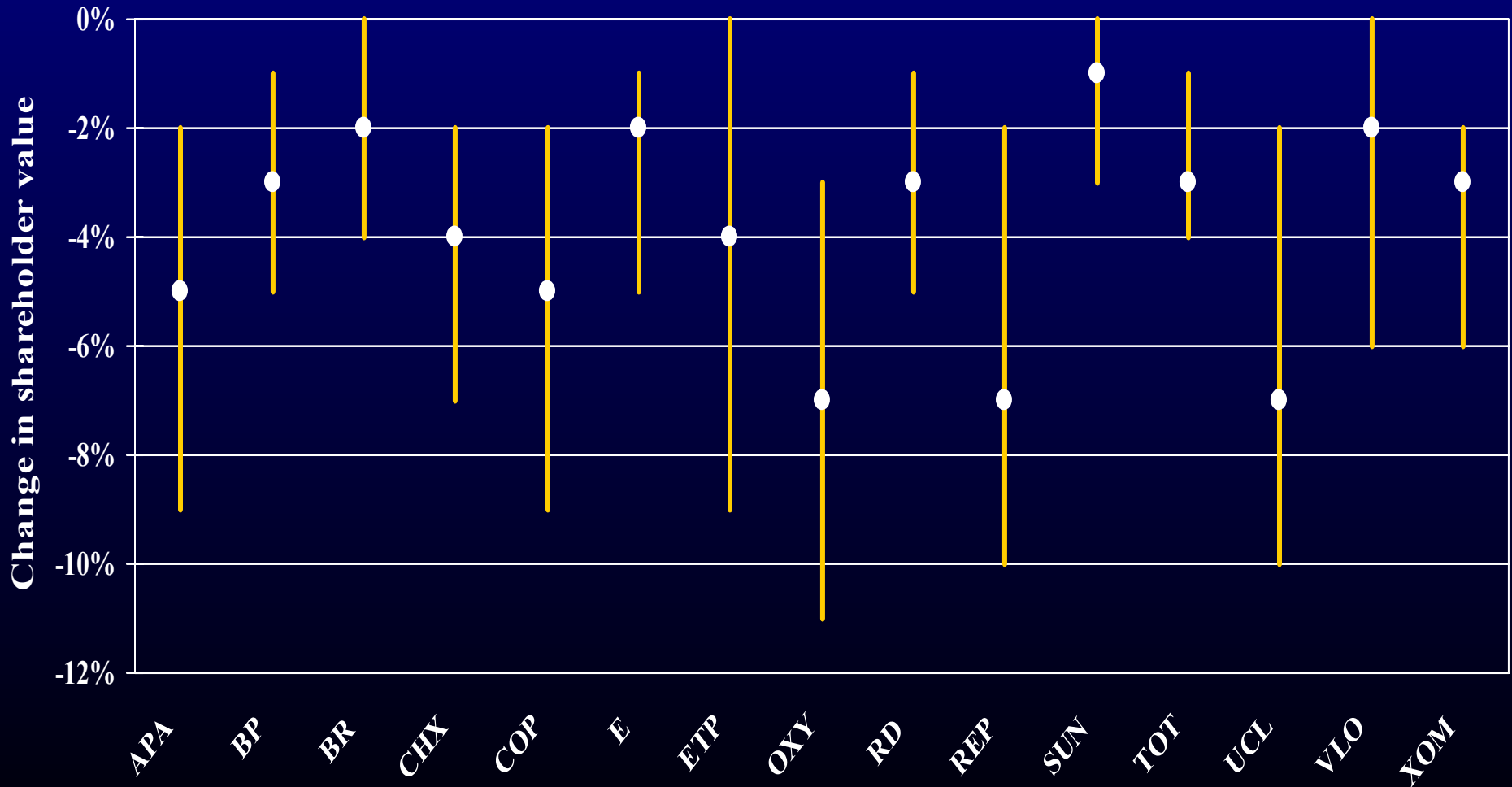
# Aggregate access results

(Range and mostly likely impact)

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# Combined results for climate and access (Range and most likely impact)



# Are companies disclosing information on emerging environmental risks?

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- SEC requires disclosure of financially material trends and uncertainties within the MD&A section of financial statements.
- We reviewed 10K, 10Q and 8K statements for evidence of appropriate disclosure.
- Hardly any of the risks are reported by companies.

# Corporate Disclosure of Climate and Access Issues

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- Only 2 companies disclose climate change policies as a possible risk to future earnings in their SEC filings.
  - 3 more mention climate change in their annual reports.
  - 7 companies report their GHG emissions in supplemental reports.
- Only one company reports good environmental and social practices as a strategy to reduce the risk of community opposition.
  - Most other companies report community investments as charitable activities.
  - Disclosure of access issues is more problematic to assess.

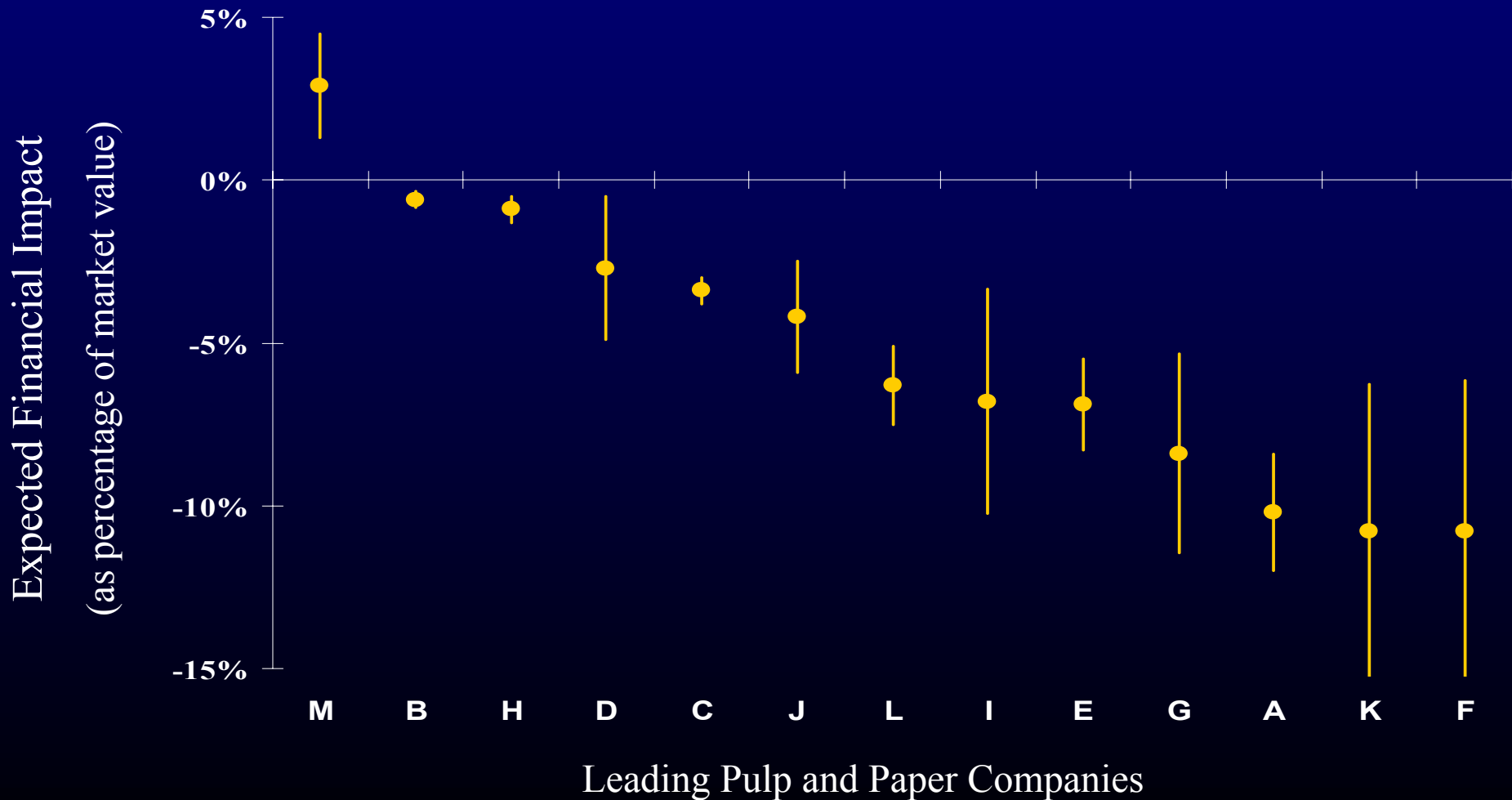


# Salient Future Issues for the Pulp and Paper Industry

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- Cluster Rule options
- 303d Rivers and TMDL provisions
- Sediment Remediation
- NOx regulations
- Endangered Species Act
- Timberland regulations

# Financial Exposure of Leading U.S. Pulp and Paper Companies to Pending Environmental Issues



# Sample Disclosure Statements from Pulp and Paper Company 10K Filings

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- “In the opinion of ... management, environmental protection requirements are not likely to adversely affect the company’s competitive industry position since other domestic companies are subject to similar requirements”
- “Since other paper and forest product companies also are subject to environmental laws and regulations, the company does not believe that compliance with such laws and regulations will have a material adverse effect on its competitive positioning”

# Sample Disclosure Statements from Pulp and Paper Company 10K Filings

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“[Company X] does not anticipate that compliance with environmental statutes and regulations will have a material effect on its competitive position since its competitors are subject to the same statutes and regulations to a relatively similar degree”

# Contact Details

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