Schlumberger

Oil Services Industry

Names of group members omitted on purpose

Agenda

- Industry Analysis
- Macro Impacts
- Hubbert's Peak
- Schlumberger Analysis
- Forecast Analysis
- Recommendations
- Q&A - Graduate…S research team

Oil Service Sector

Producers, refiners and marketers of oil, and associated carriers and service contractors.

There are two major sectors within the oil industry

Upstream The exploration and production of oil and gas

Downstream Oil and gas operations after the production phase and through to the point of sale, whether it be the gas pump or the home heating oil truck

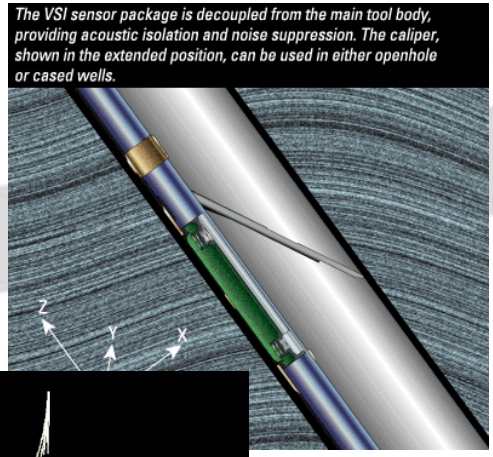
We are within the Upstream Oil Services sector

OS is broken into two major areas: Drilling and Oilfield Services

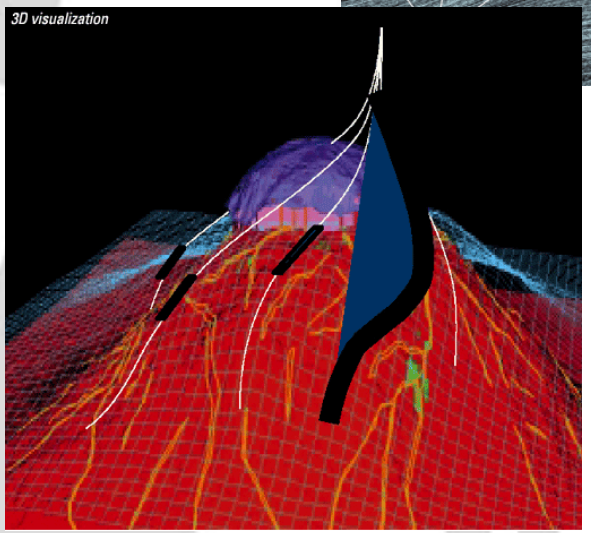
Oil Service - Services

Assist the drilling companies in setting up oil and gas wells.

Seismic Testing



The VSI sensor package is decoupled from the main tool body, providing acoustic isolation and noise suppression. The caliper, shown in the extended position, can be used in either openhole or cased wells.



3D visualization

Transportation Services

Directional Services

Oil Service - Drilling

Companies that physically drill and pump the oil out of the ground

Types of Rigs

Land Rigs

5,000 feet to upwards of 30,000 feet

Oil Service Industry

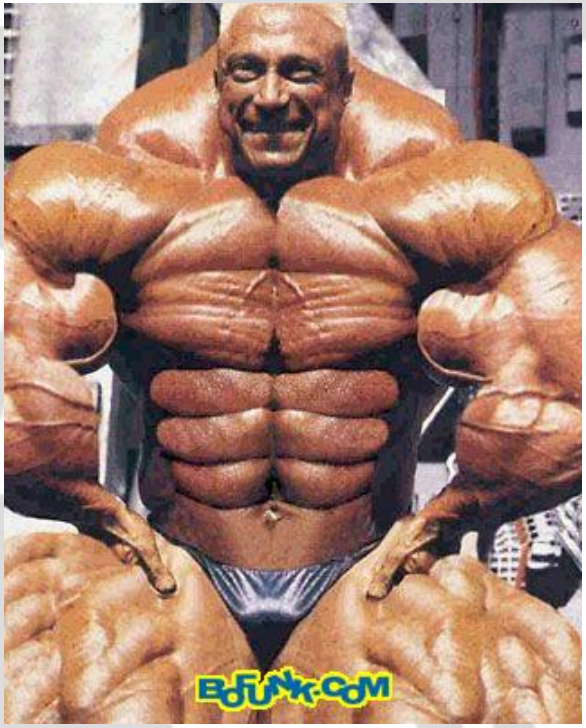
Submersible Rigs

used for ocean, lake, swamp drilling

Oil Service Industry

Jack-ups

'jacked-up' allows it to be above the highest anticipated waves.



Industry facts

"Petroleum is the single largest source of energy used in the United States."
- *Department of Energy*

"About 90% of these products are fuels "

Total Industry revenue amounts to $ 231 Billion

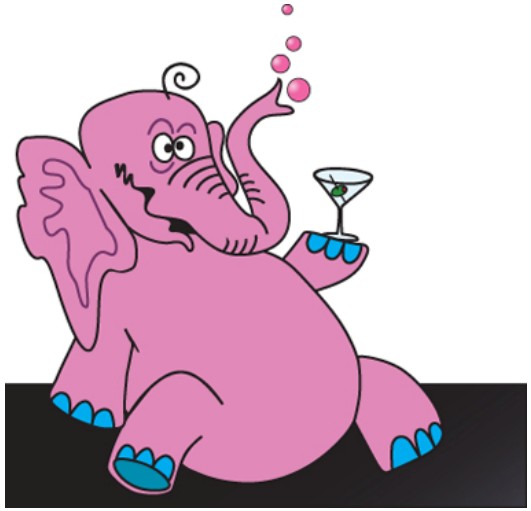
"Oil accounts for 40 % of the United States' energy supply and a comparable percentage of the world's energy supply"

"Oil is a scarce commodity but is it still cheap?"

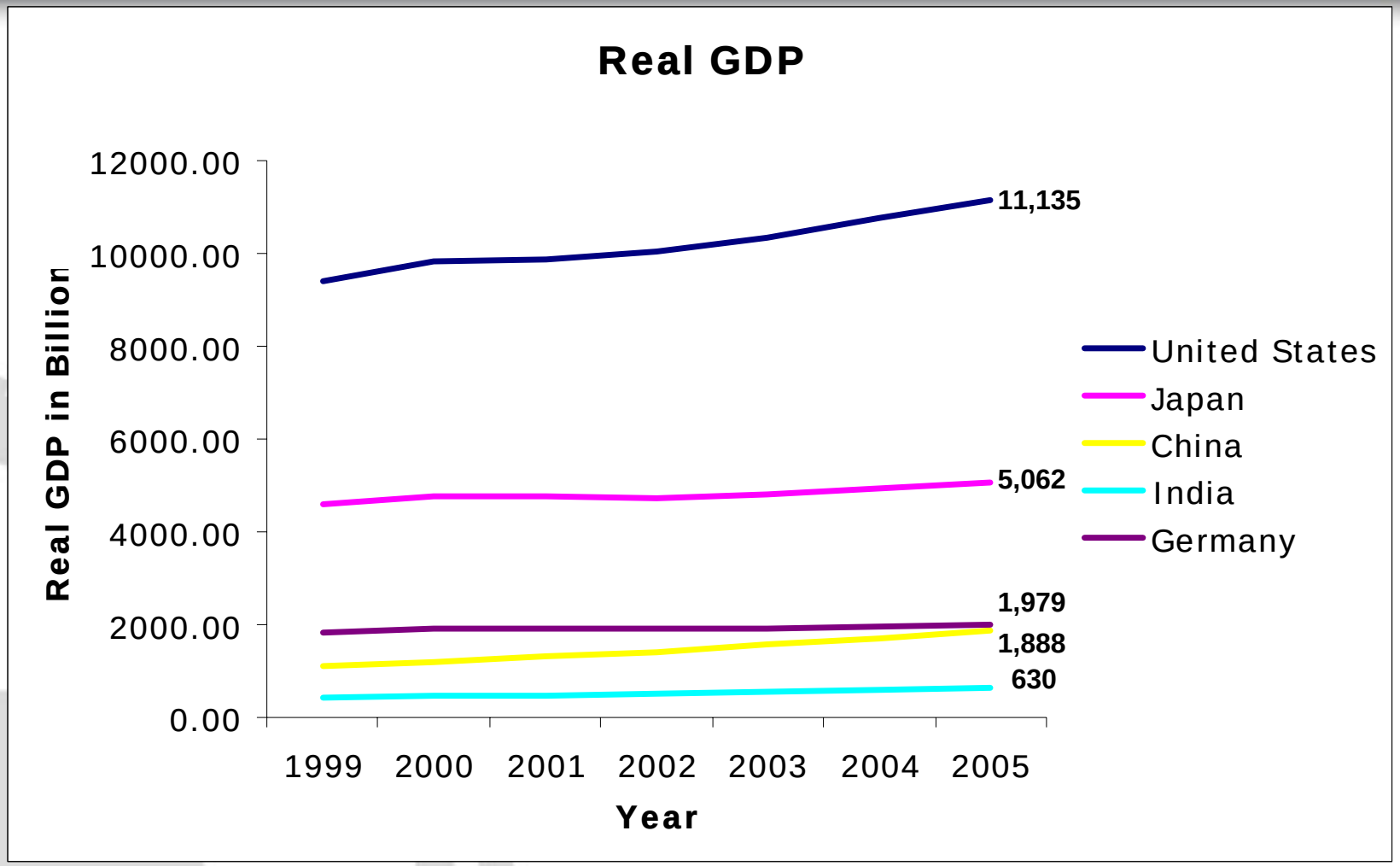
… and a little fiction

"There is no such thing as global warming"

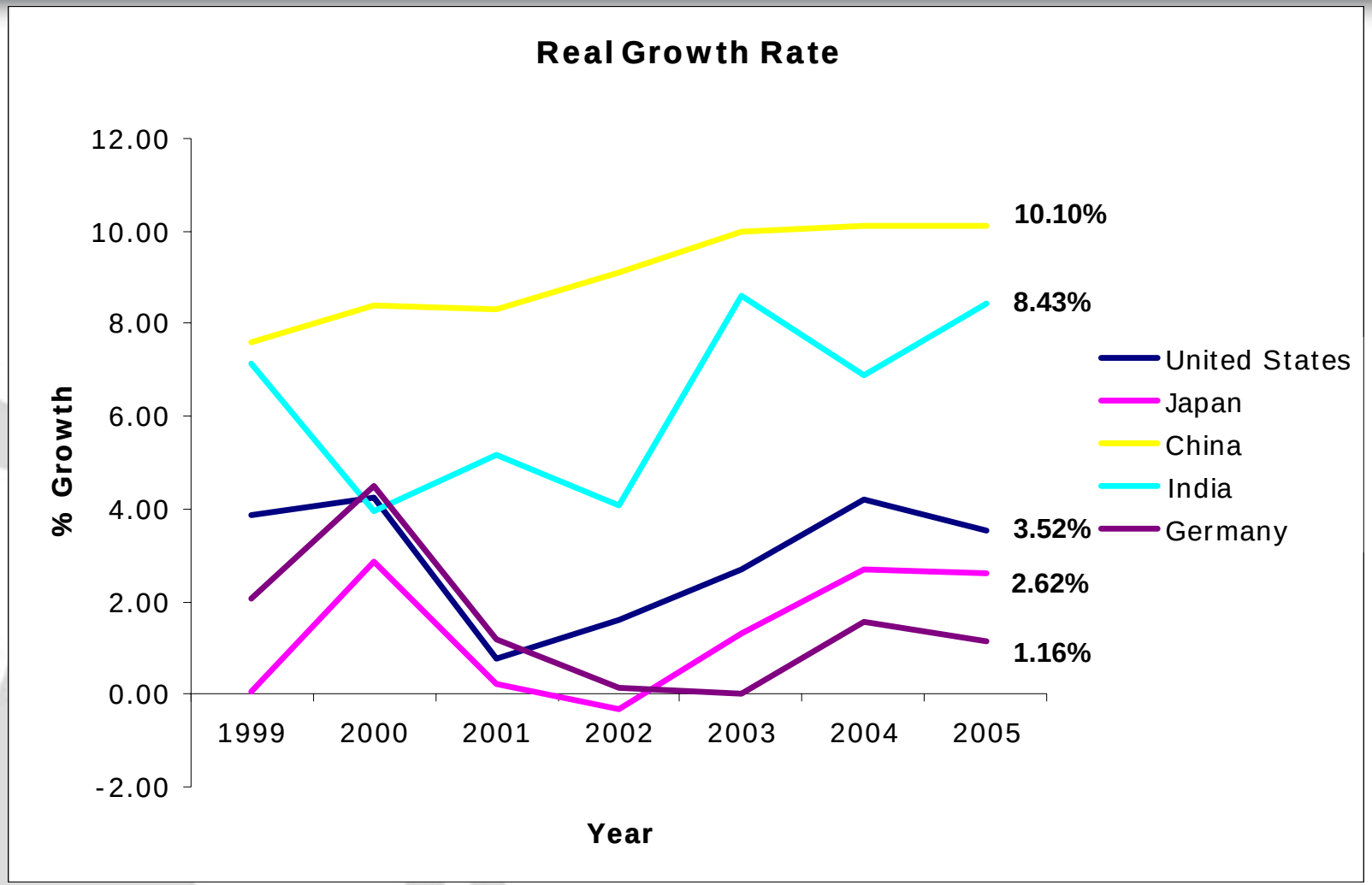
"There is plenty of oil to last us for centuries to come"



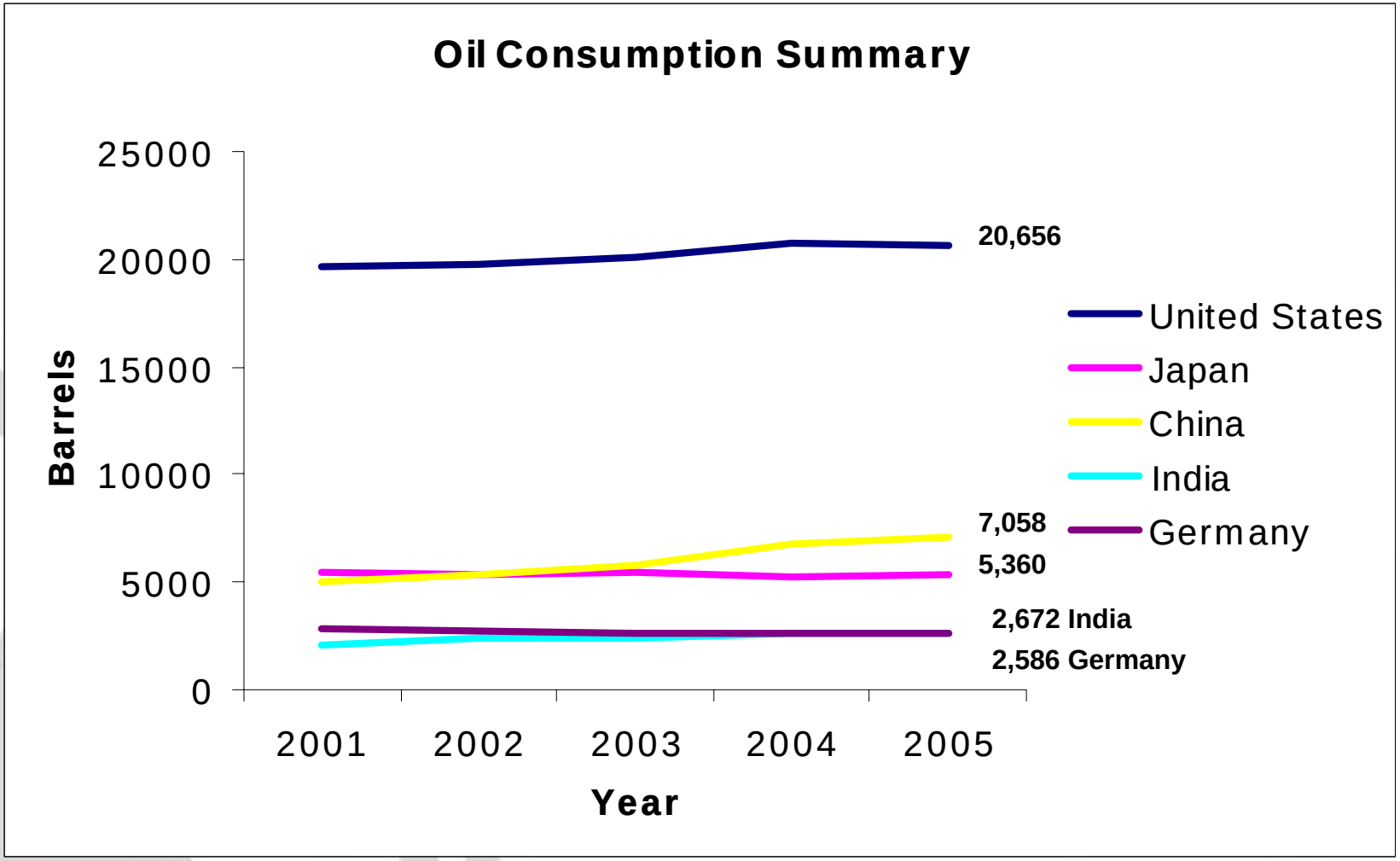
Real GDP in Major Oil Consumers



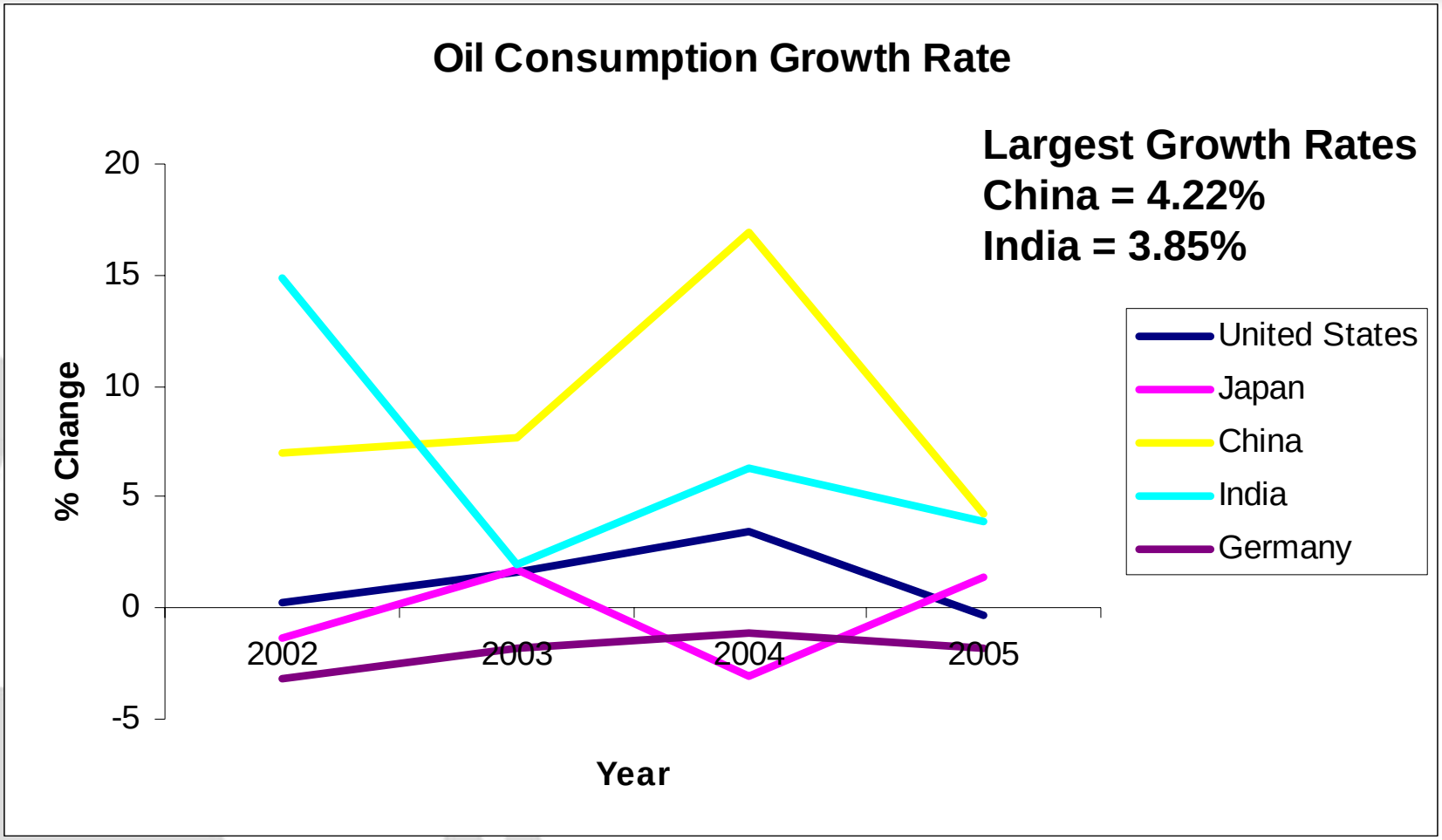
Real GDP Growth Rate in Major Consumers



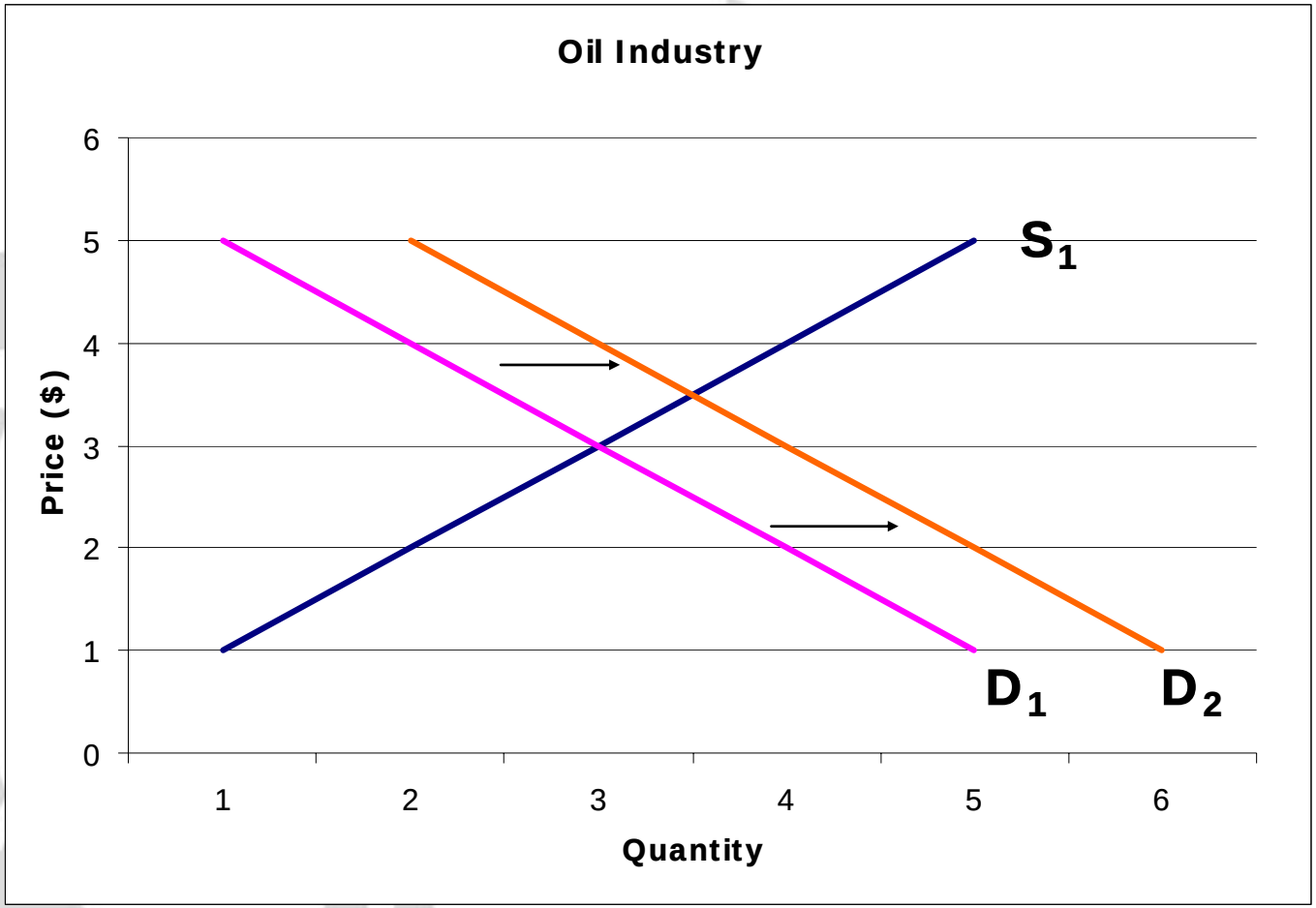
Oil Consumption in Major Consumers



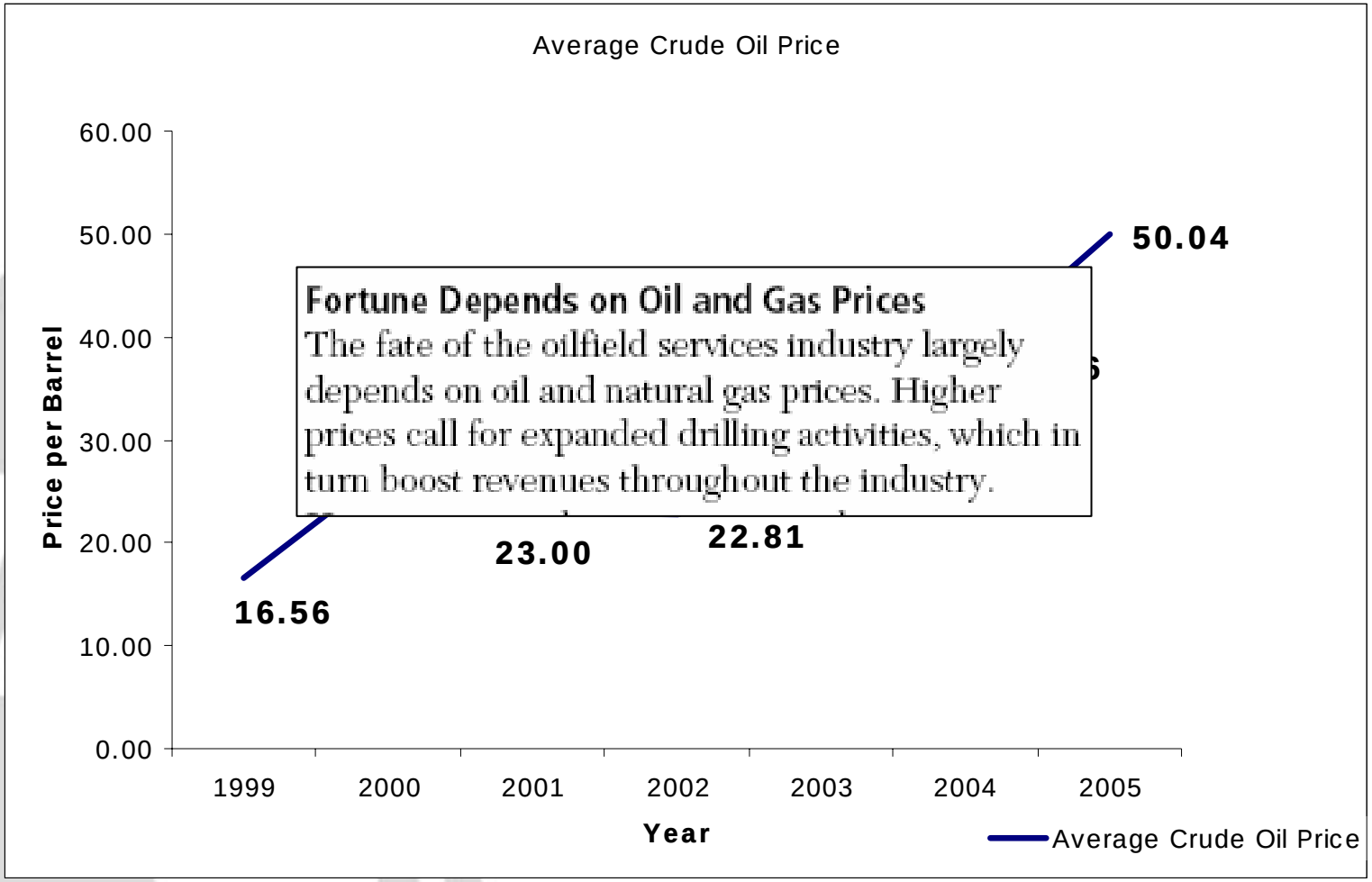
Oil Consumption Growth Rate



Shift Caused by Increase in Demand



Average Change in Crude Oil Price



Fortune Depends on Oil and Gas Prices

The fate of the oilfield services industry largely depends on oil and natural gas prices. Higher prices call for expanded drilling activities, which in turn boost revenues throughout the industry.

Cheap Oil is it real?

http://www.rsoftconsulting.com/hubbert.htm

Hubbert's Peak Theory

- *Marion King Hubbert presented paper in 1956 to American Petroleum Institute*
- *".. fundamental observation that the amount of oil under the ground is finite"*
- "**Peak oil** is peaking of production of a particular area"
- *Early in the curve (pre-peak), the production rate increases due to the discovery rate and the addition of infrastructure. Late in the curve (post-peak), production declines due to resource depletion*

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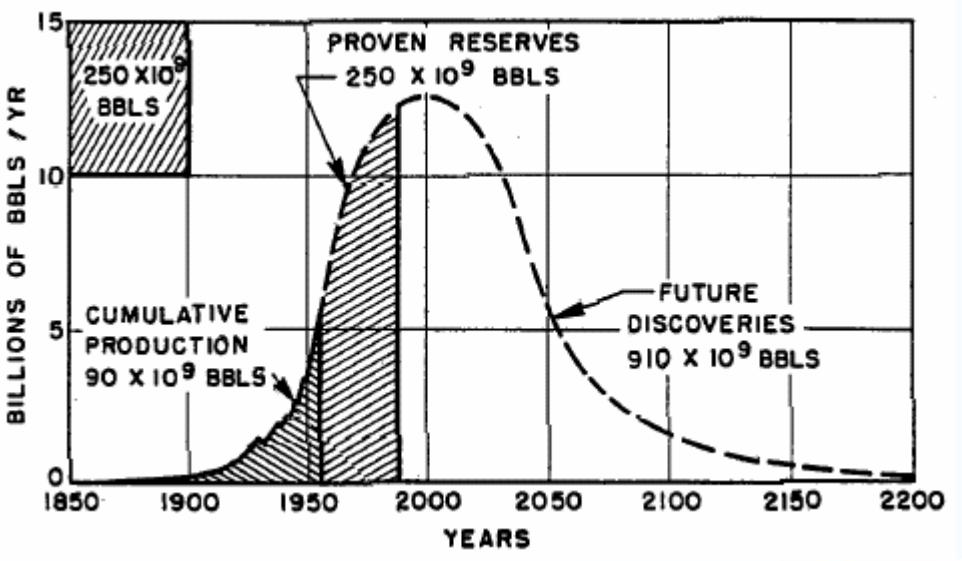


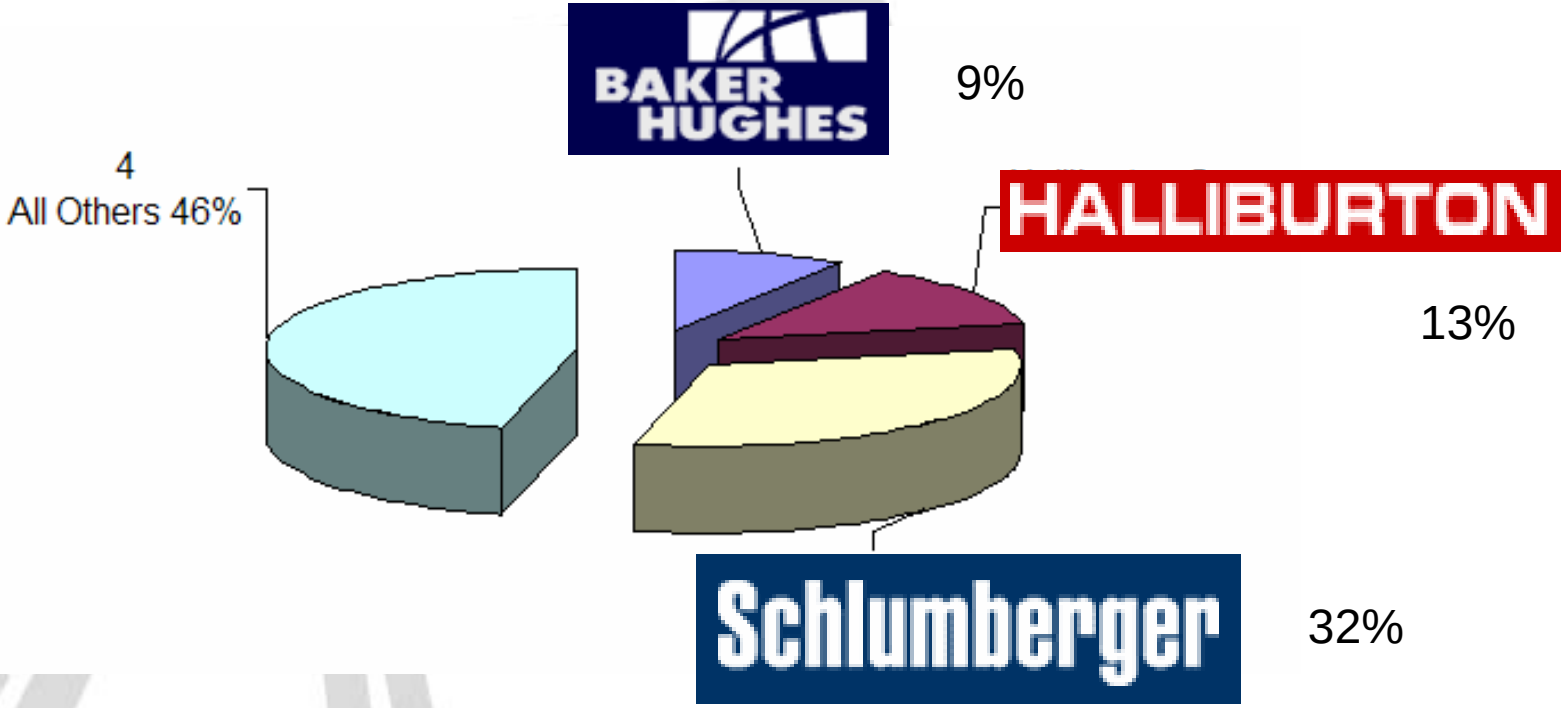
Schlumberger: Who are we?

Schlumberger is considered the leading oilfield services provider.

Founded in 1926

We are trusted to deliver superior results and improved E&P (Exploration and Production), and performance for oil and gas companies around the world

Oil Services Industry Breakdown

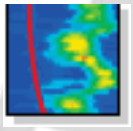


Products and services

Exploration/Development

Drilling

Seismic Testing



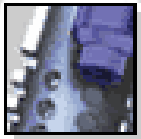
Reservoir evaluation

Efficiency

Coil tubing - efficient remediation

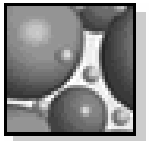
Well Stimulation

Production



Artificial/Directional Lifts

Cementing/Zonal Isolation



Production and cost issues

- $619 Million dollars was invested in Research and Development in 2005. (3% operating revenue)

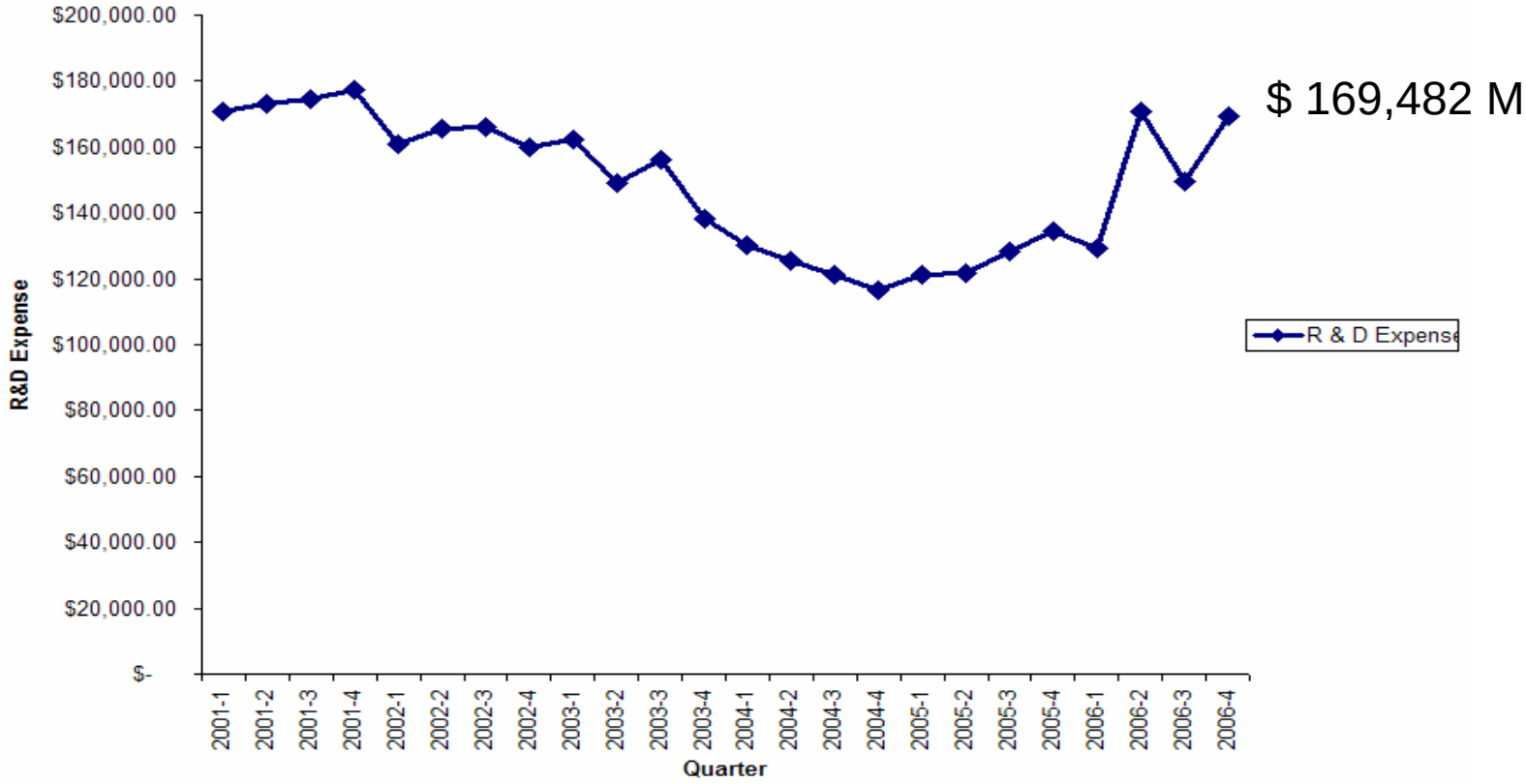
- Specialized Training for highly skilled employees (new and existing), equipment (trucks, rigs, etc)

- Environmental regulatory adherence

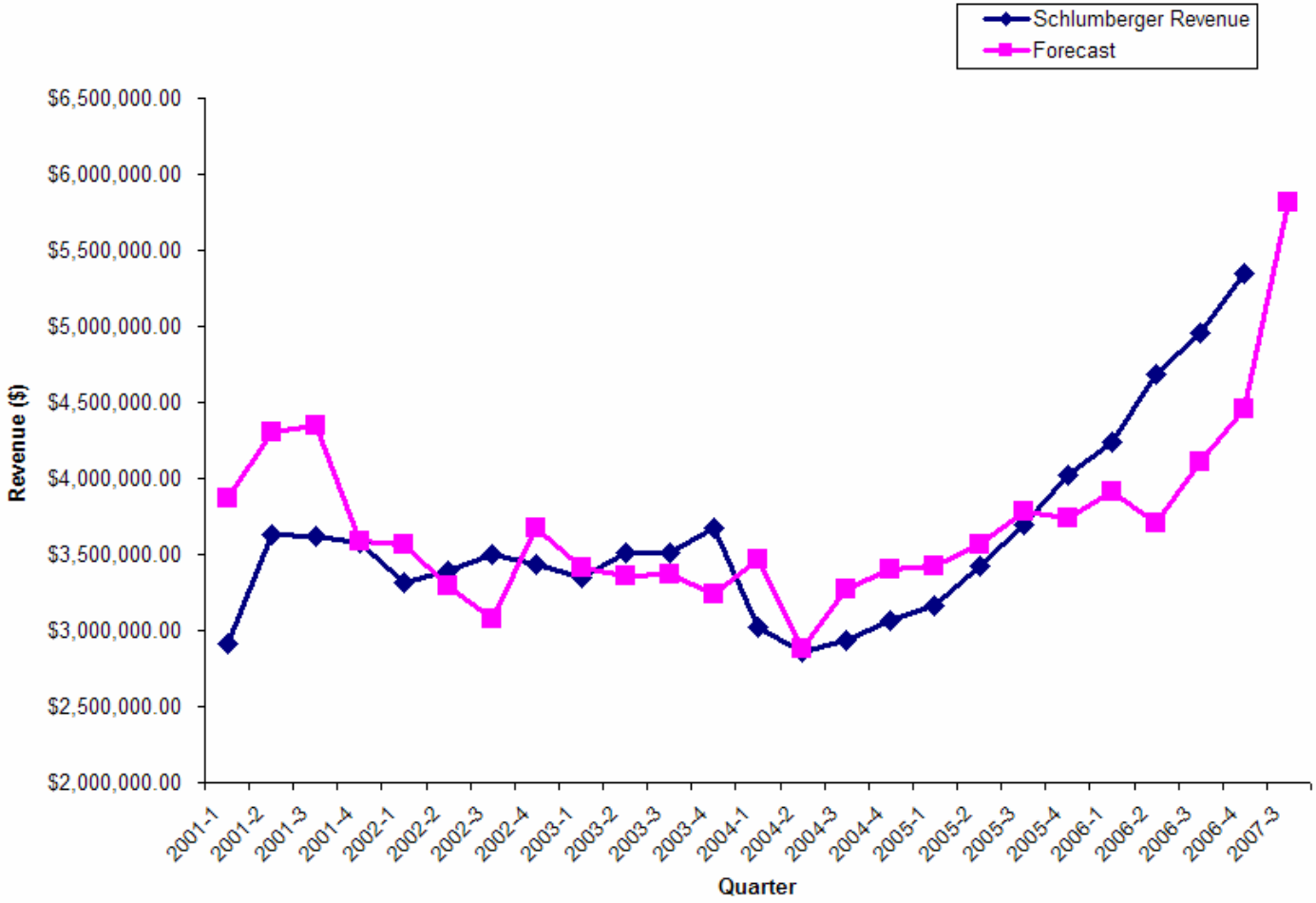
Schlumberger Forecasting Approach

- Auto regression to forecast ‘Total revenue’
- Used Research & Development
- Researched through Bloomberg since 2000
- Relevant predictors were R&D (qtr-0) – (qtr-6)
- R&D (qtr-1)
- R&D (qtr-2)
- R&D (qtr-3)

R&D Expenditures



Revenue Forecast



10% MAPE

35% Increase in R&D

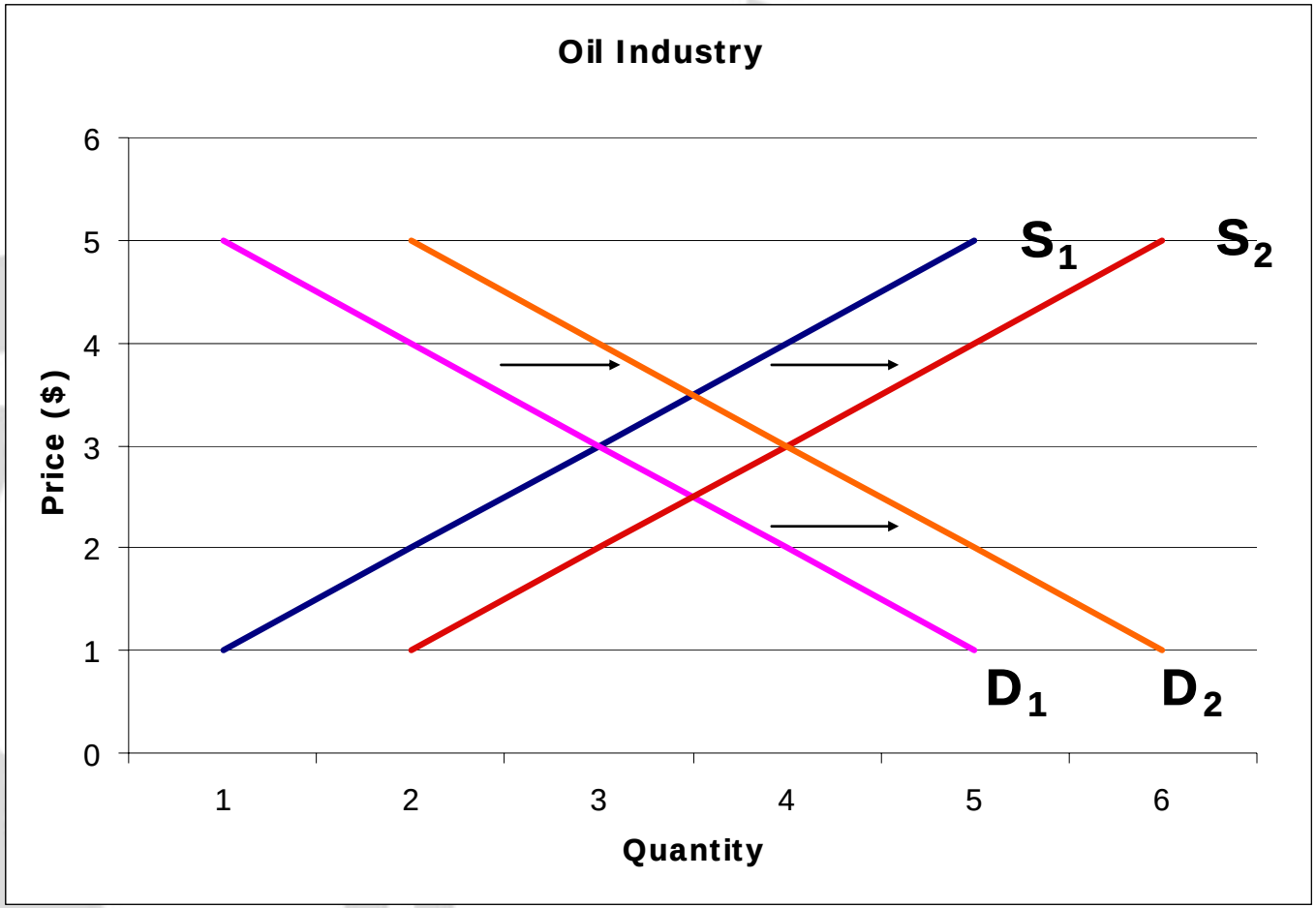
TSTATS
1.1 – 3.3

2007 Total Revenue Over 18B

Recommendations

- Increase from R&D 3% to 5% of operating revenue
- Focus R&D on efficiency drilling and exploration components
- Strategizing on alternative energy such as hydro and ethanol

Ultimate Task Goal Desired By Oil Services Industry



Q&A with Graduate…s

We are truly a partner to the GLOBE