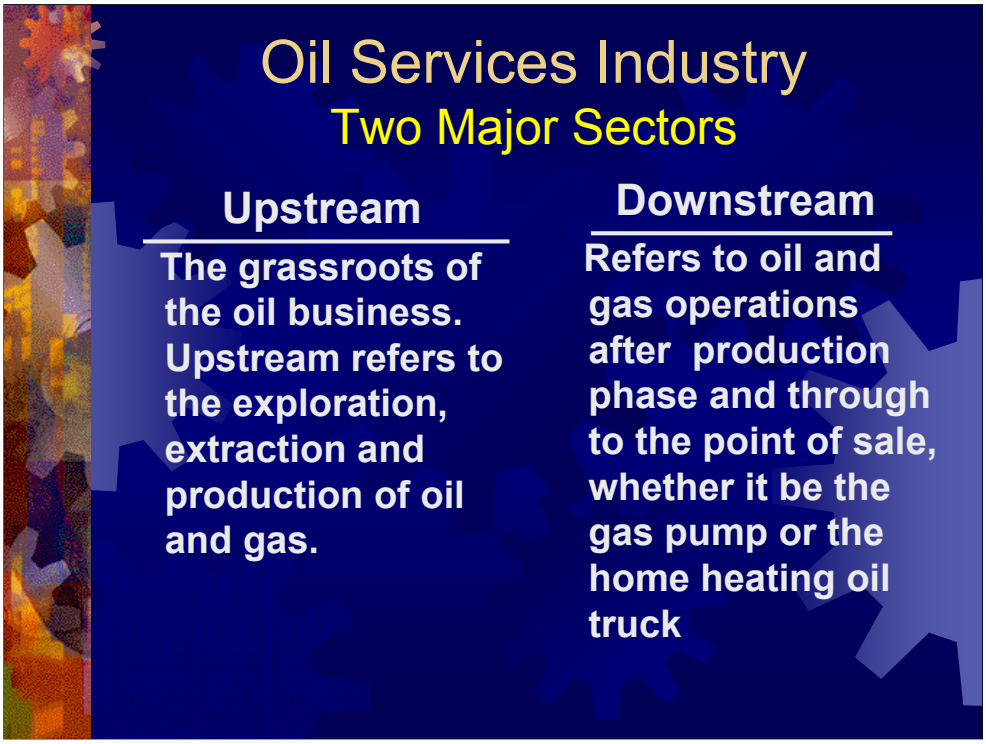
OIL SERVICES INDUSTRY

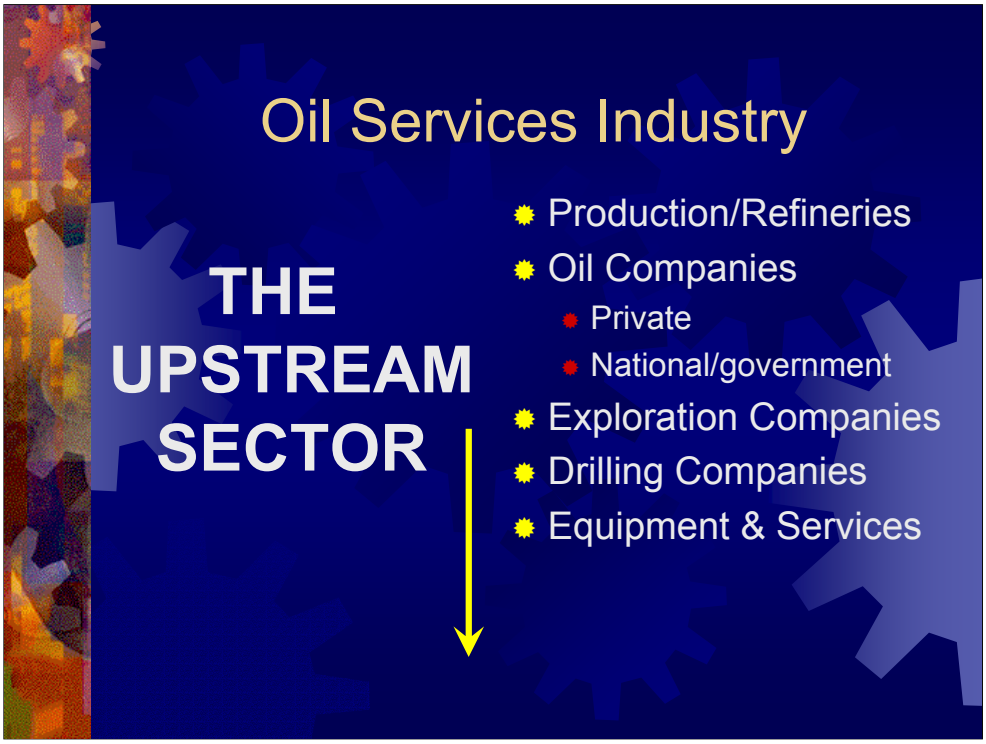
There is no doubt that the oil/energy industry is extremely large. According to the Department of Energy, "petroleum is the single largest source of energy used in the United States." The nation uses two times more petroleum than either coal or natural gas and four times more than nuclear power or renewable energy sources. Before petroleum can be used, it is sent to a refinery where it is physically, thermally, and chemically separated into fractions and then converted into finished products. About 90% of these products are fuels such as gasoline, aviation fuels, distillate and residual oil, liquefied petroleum gas (LPG), coke (not the refreshment), and kerosene. Refineries also produce non-fuel products, including petrochemicals, asphalt, road oil, lubricants, solvents, and wax. Petrochemicals (ethylene, propylene, benzene, and others) are shipped to chemical plants, where they are used to manufacture chemicals and plastics.



Oil Services Industry: Two Major Sectors

There are two major sectors in the Oil Services Industry, Upstream and Downstream. The grassroots of the oil business is the upstream sector. Upstream refers to the exploration, extraction and production of oil and gas.

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

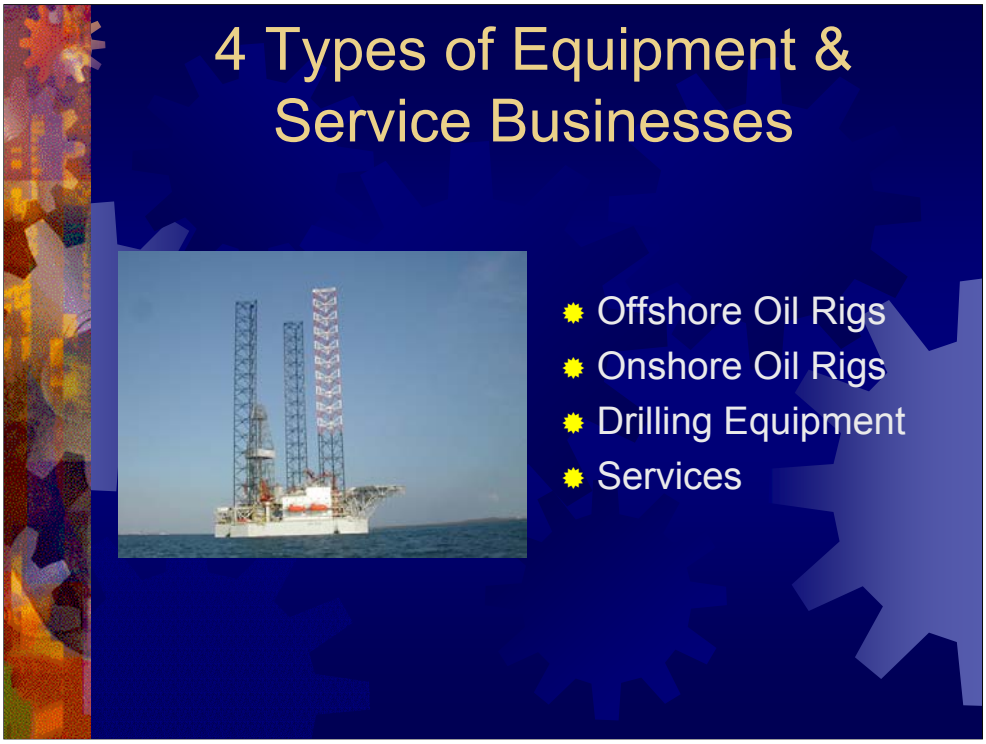


Oil Services Industry: The Upstream Sector

Looking first at the upstream sector, in descending order we have: Production/Refineries, Oil Companies (private and government), exploration companies, drilling companies and finally equipment and services companies.

Oil & Gas: Equipment & Services

Drilling for oil and gas is a unique business that requires experienced workers and very specialized equipment. Most oil and gas producers find it more cost effective to hire experts and drilling equipment from outside contractors and suppliers than to maintain them in-house. This common practice has led to the Equipment & Services Industry.



4 Types of Equipment & Service Businesses

There are four major types of equipment and services businesses: offshore oil rigs, onshore oil rigs, drilling equipment, and services. Drilling companies provide the rigs and operate them, either on a project or long-term contract basis.

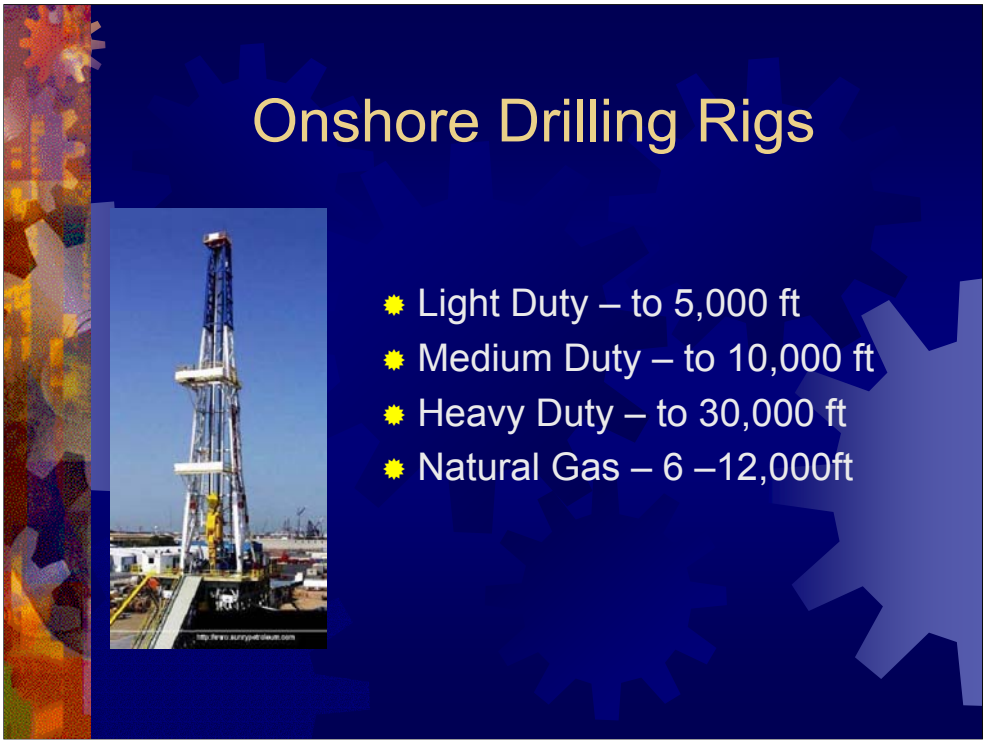
Types of Offshore Rigs

Rigs are often defined by their mechanism of support, either from the bottom (submersible or jackup) or floating (semisubmersible or drill ship). Submersible rigs typically operate in wetlands and swamps, standing in water depths of up to 86 feet. Submersible rigs float on the water's surface when moved from one drilling site to another. When it reaches its destination, certain compartments are flooded, submerging the lower part of the rig. With the base of the rig in contact with the ocean floor, wind, waves and currents have little effect on it.

Jackup rigs operate in 400 feet or less. The legs of the rig are lowered to the ocean floor. The legs are then used to raise, or "jack-up" the base above the height of the highest anticipated waves.

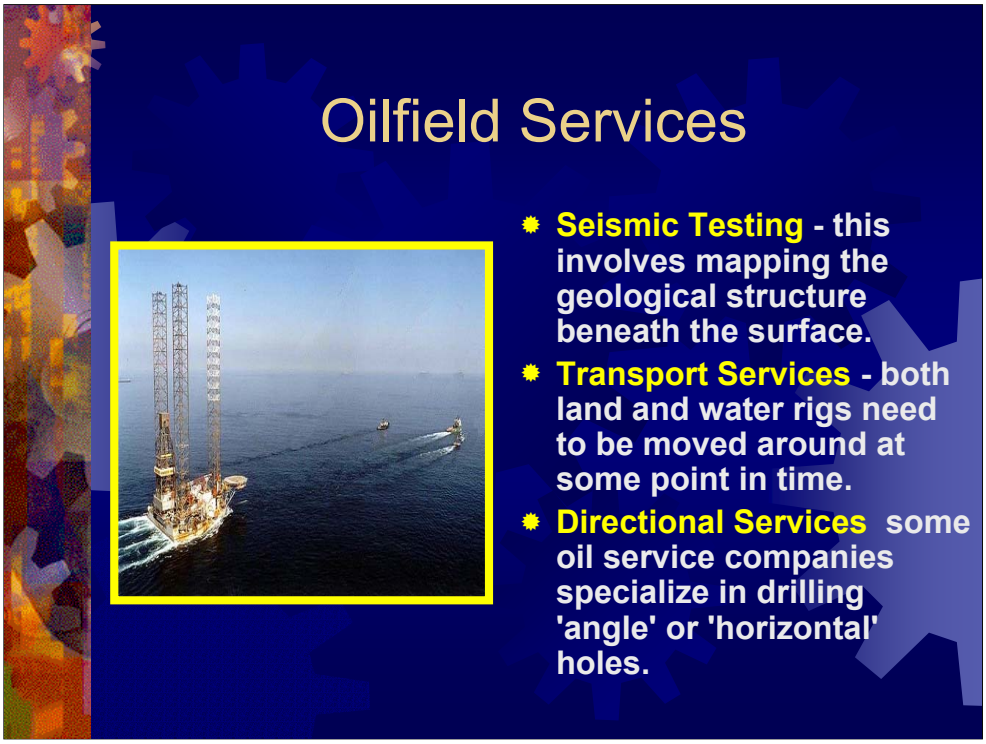
Semisubmersible Rigs typically have two air-filled steel pontoons on which the rig sits. The pontoons are usually submerged a few feet below the water's surface. These rigs operate at the deepest levels of operation

Drill ships – These vessels, which look like ships, drill while floating on the surface. Drilling takes place through a hole in the center of the ship's hill, called a moon pool. These are used primarily for exploration because they are very mobile.



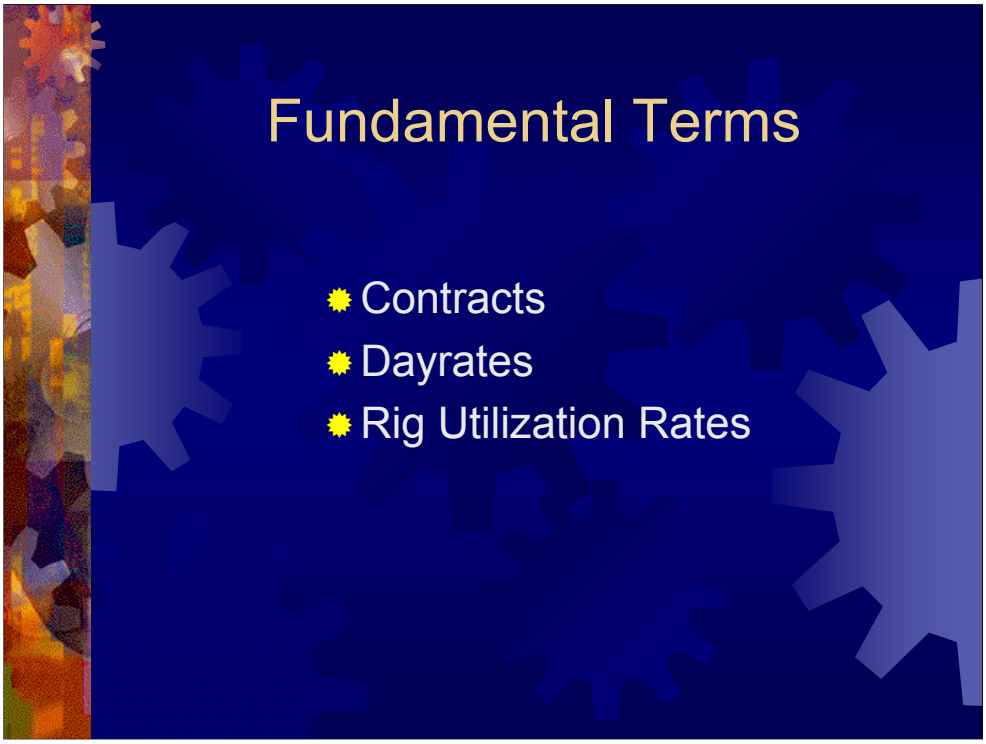
Onshore Drilling Rigs

Onshore Drilling Rigs: Light Duty – to 5,000 ft; Medium Duty – to 10,000 ft; Heavy Duty – to 30,000 ft; Natural Gas wells are usually 6 to 12,000 ft deep. Typically, a single rig can drill about three shallow wells or two intermediate-depth wells in one month. A deep well may take four to 13 months to complete.



Oilfield Services

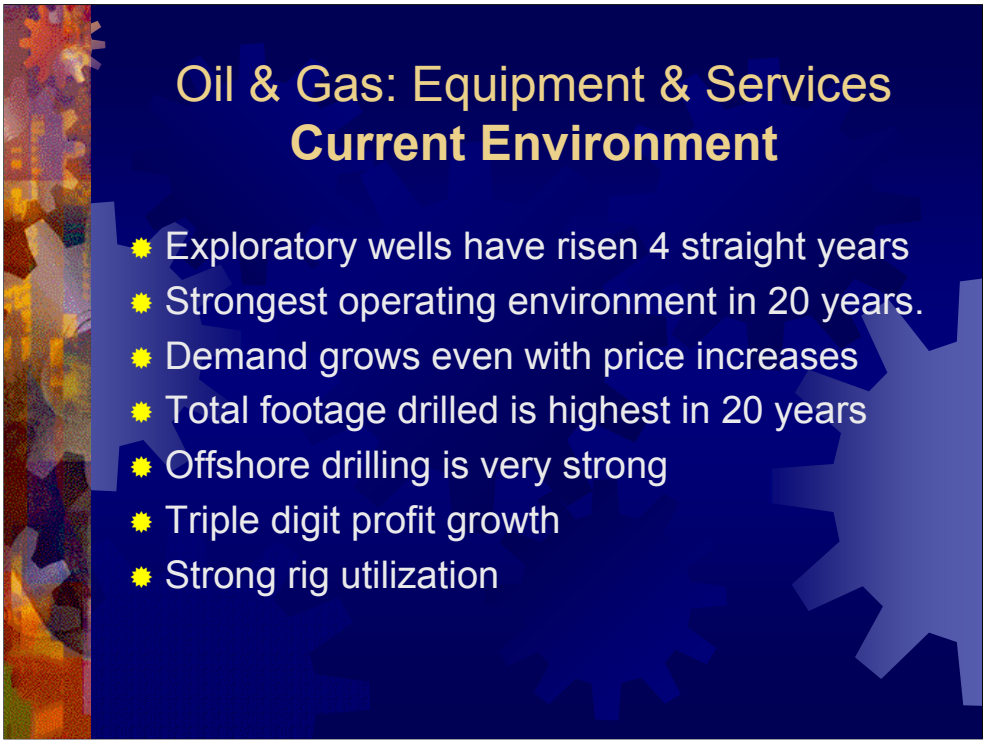
Oilfield Services: Seismic Testing – this involves mapping the geological structure beneath the surface; Transport Services – both land and water rigs need to be moved around at some point in time; Directional Services – some oil service companies specialize in drilling angle or horizontal holes.



Fundamental Terms

Contracts – Drilling companies provide the rigs and operate them, either on a project or long-term contract basis. Typically, land-drillers operate under varying types of contracts, with rates charged either by the day, foot drilled, or on an all-inclusive or "turnkey" basis. Offshore drilling contracts are mostly written on a daywork basis, with an occasional turnkey contract.

Dayrates -



The Current Environment for Oil & Gas: Equipment & Services

Exploratory wells have risen 4 straight years. Strongest operating environment in 20 years.

Demand grows even with price increases; Total footage drilled is highest in 20 years; offshore drilling is very strong; triple digit growth; strong rig utilization

Extensive Share buyback programs: shareholders benefit from improved balance sheets, improves return on equity; boosts share price.
Included in this trend is offshore and land drillers as well as equipment service providers

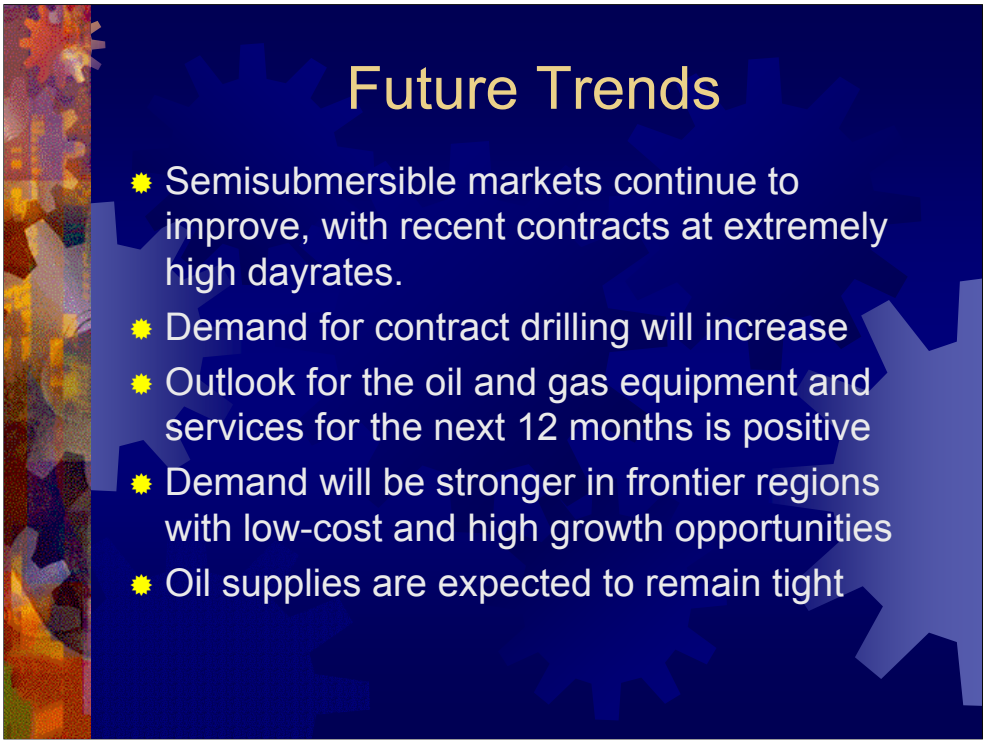
Off Shore Drilling Issues

Off Shore Drilling Issues: decline in activity in the Gulf of Mexico; rigs sent elsewhere for higher dayrates; storms cause government and insurance industry regulations.

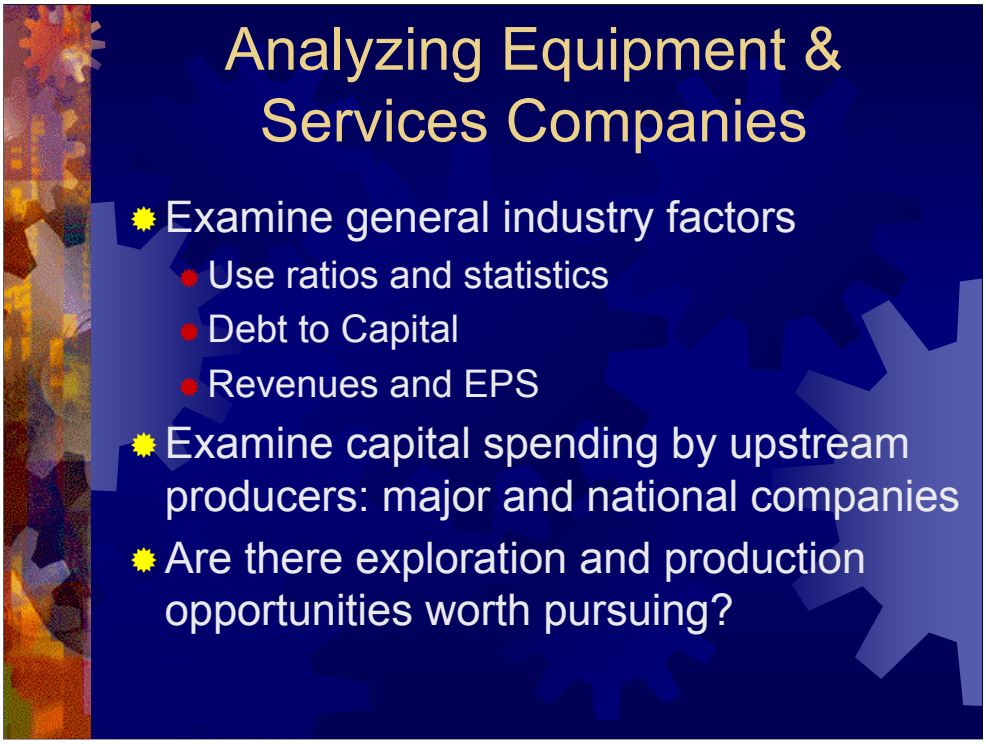
Environmental issues/regulations; stricter safety requirements; increase in insurance premiums

Future Trends

Future Trends: deepwater drilling should continue to thrive; projected demand for new rigs still outpaces projected supply; dayrates will increase; overseas-focused drilling operations; supply/demand fundamentals will be strongest in the North Sea, Middle East, West Africa, Mediterranean and India; modest growth in dayrates in South America and Asia-Pacific.



Semisubmersible markets continue to improve, with recent contracts at extremely high dayrates; demand for contract drilling will increase; outlook for the oil and gas equipment and services for the next 12 months is positive; demand will be stronger in frontier regions with low-cost and high growth opportunities; oil supplies are expected to remain tight.

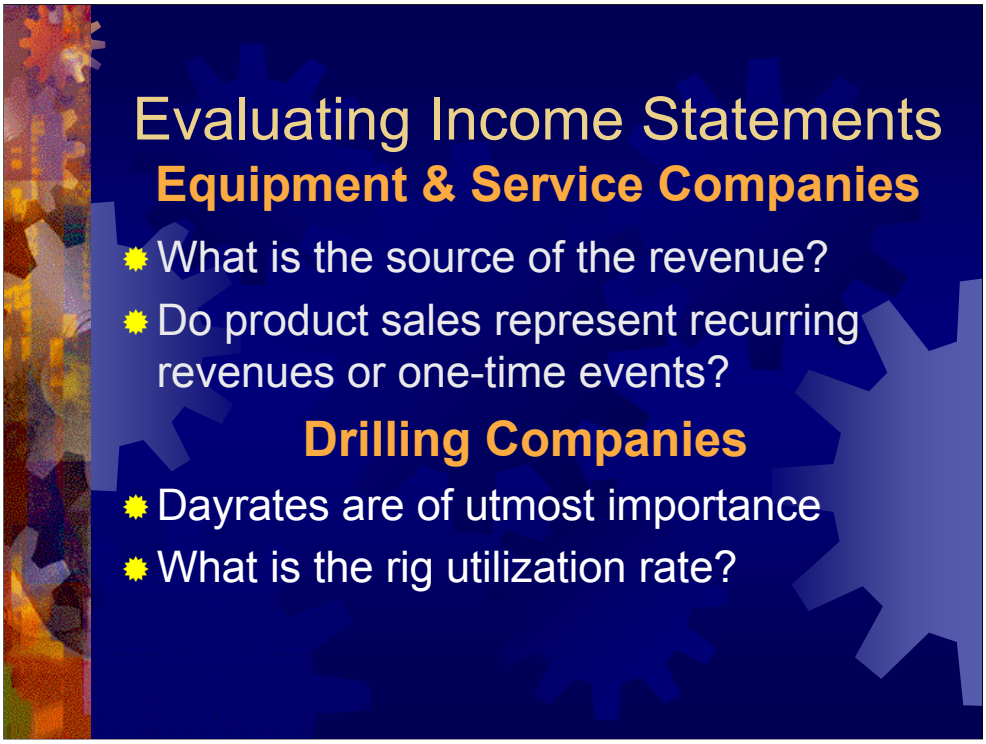


Analyzing Equipment & Services Companies

1. Examine general industry factors: use ratios and statistics; debt to capital; revenues & EPS
2. Examine capital spending by upstream producers (major and national companies)
3. Are there exploration and production opportunities worth pursuing?

Company Characteristics That Make For Success

1. **Rig Location** is of prime importance: relative cost/benefit ratios (exploration & production costs versus oil/gas prices & dayrates; expense of transporting/relocating rigs
2. **Types of Rigs** - Premium versus Commodity Rigs: during weakness, premium rigs outperform commodity rigs; when strength returns, land drilling rigs and jackups improve most rapidly; as recovery continues, utilization rates and dayrates for deepwater rigs rise rapidly
3. **Types of Contracts** - Three primary ways drillers are paid: **Footage Contract** - based on the depth of the wells drilled. = unpredictable; **Daywork Contract** - based on the number of days to be working = very stable; **Turnkey Contract** - fixed price - calls for payment of a specific amount to the drilling contractor upon completion of the well. The contractor furnishes all material and labor and controls the entire drilling operation, independent of operator supervision and is paid only if the well is successfully drilled as contracted = good way to put idle rigs to work.
4. **Length of Contracts** - long contracts lock in a price....not good when dayrates are going up.



Evaluating the Financial Statements

For Equipment & Service Companies,

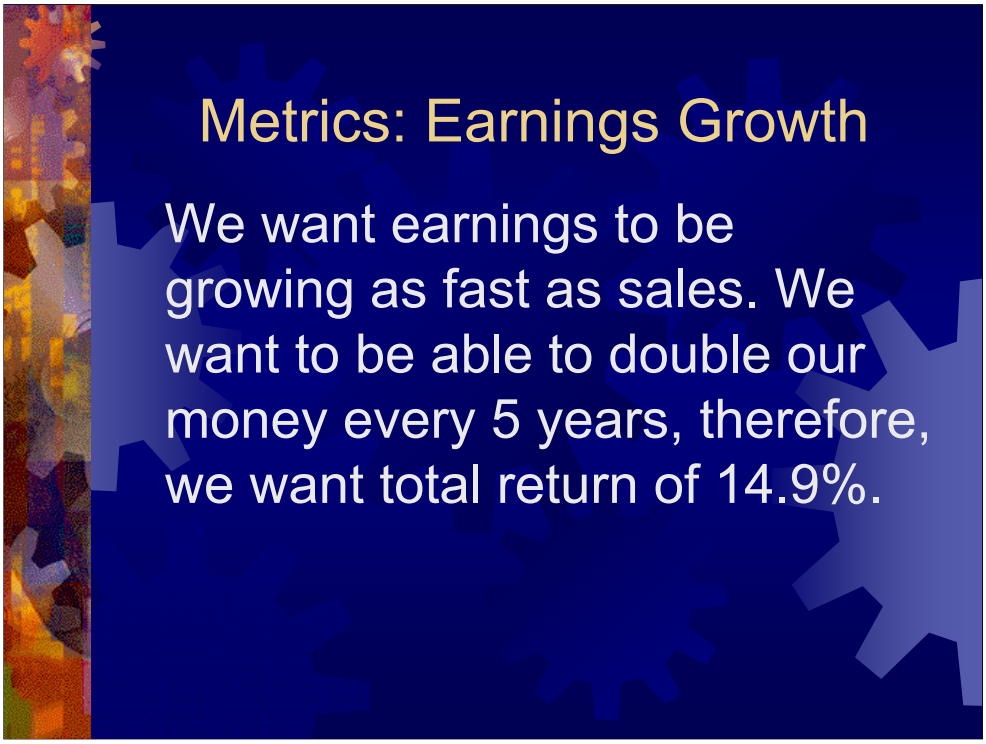
What is the source of the revenue? What % of revenues and earnings come from products? What % comes from services. Do product sales represent recurring revenues or one-time events?

For Drilling Companies

Dayrates are of utmost importance in projecting future revenue growth; What is the rig utilization rate? High or rising rate = demand is strong for rigs; A very high rate = future gains must be fueled by higher dayrates; Rising dayrates result in wider operating margins

Metrics: Sales Growth

For a large cap company, with sales over $5,000,000 annually, we want sales to grow 7 to 10% annually



Metrics: Earnings Growth

We want earnings to be growing as fast as sales. We want to be able to double our money every 5 years, therefore, we want total return of 14.9%.

Pretax profit expansion:
We want to know that management is controlling expenses. We like to see pre-tax profit that is steady or rising.

Metrics: Return on Equity

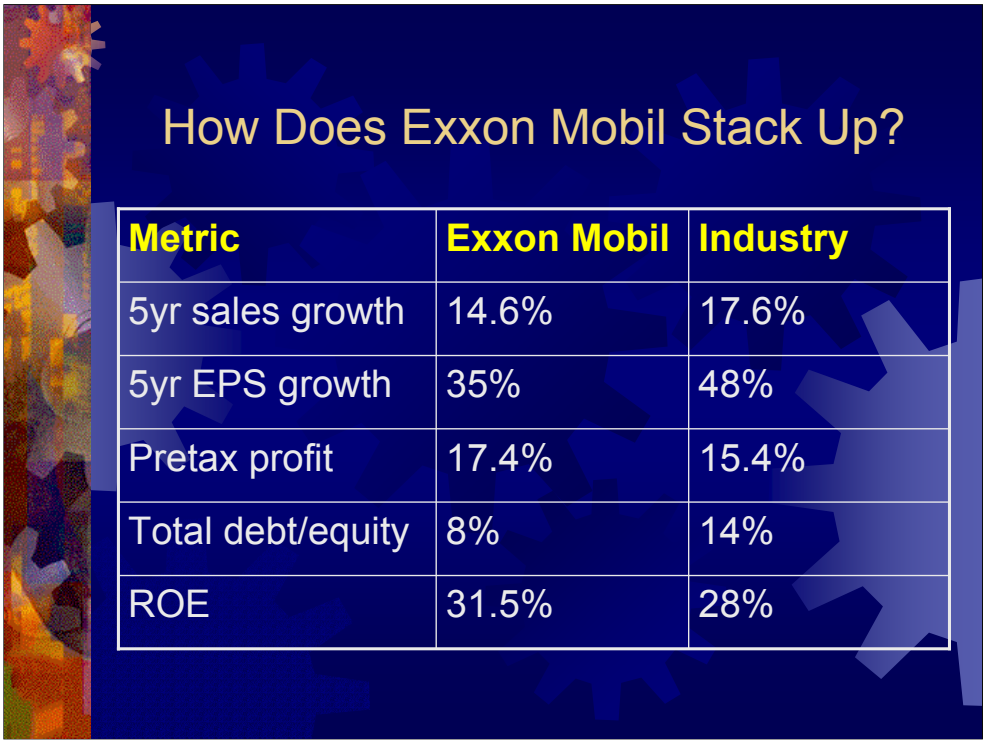
We like to see return on equity that is steady or rising.

Metrics: Debt to Equity

We like companies that aren't highly leveraged, companies with debt to equity of 33% or less.

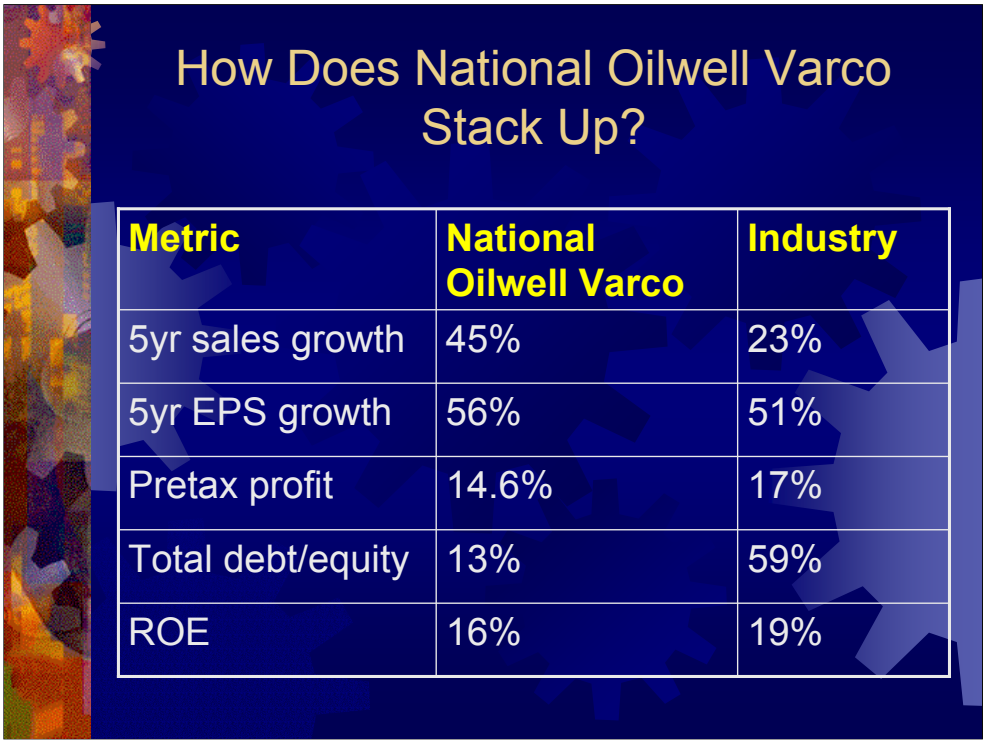
Strong Cash Flow

We like companies that pay a dividend and/or repurchase shares. We like companies that don't have to take out a loan to finance an acquisition.



How do Exxon Mobil stack up? (Reuters.com)

Metric	Exxon Mobil	Industry
5-year Sales growth	14.6%	17.6%
5-year EPS growth	35%	48%
Pre-tax profit	17.4%	15.4%
Total debt/equity	8%	14%
ROE	31.5%	28%



How does National Oilwell Varco stack up? (Reuters.com)

Metric	Natl Oilwell	Industry
5-year Sales growth	45%	23%
5-year EPS growth	56%	51%
Pre-tax profit	14.6%	17%
Total debt/equity	13%	59%
ROE	16%	19%

PortfolioGrader Pro

KEY: A=Strong Buy, B=Buy, C=Hold, D=Sell, F=Strong Sell

Print Report

Portfolio Grade A		Total Stock Grade	Quant. Grade	Fund. Grade	Sales Growth	Operating Margin Growth	Earnings Growth	Earnings Moment.	Earnings Surprises	Analyst Earnings Revisions	Cash Flow	Return on Equity
☐	▼▲	▼▲	▼▲	▼▲	▼▲	▼▲	▼▲	▼▲	▼▲	▼▲	▼▲	▼▲
☐	NOV National Oilwel STOCK REPORT	A	A	B	B	A	A	D	C	B	B	A
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The Balance Sheet

1. Ratio of long-term debit to total capital compared to peers; 2. Ratio of earnings to interest expense compared to peers; 3. Return on Assets (ROA) = net income ÷ average level of asset; 4. Return on Assets - measures company's ability to use its assets to generate profits 5. Return on Equity (ROE) = net income ÷ average equity levels - measures success in investing its capital

Cash Flow

1. See 10Q & annual 10K filings; 2. Discretionary cash flow, not earnings reveal a company's ability to cover future spending; 3. Cash flow growth confirms earnings growth

Valuation Measures

1.Valuation Measures - Are a company's shares over or undervalued?: what is the P/E ratio?; what is the P/CF ratio? (price/cashflow); how do these values compare with historical ratios and with its peers?; what is the ratio of forward P/E to long-term growth(PEG)? - a common benchmark is that shares may be undervalued if a company's PEG is below 1.0 and the fundamentals of the business are healthy; before deciding whether a company's stock is undervalued or overvalued, compare its valuation ratios with its own historical ratios as well as with those of its peers and the S&P 500.

Analyze the Oil & Gas Company

Key Ratios & Statistics

1. Prices of oil, gas, and refined products: reflection of supply and demand; major determinant of profits; determine the revenues of upstream oil and gas companies
2. Growth in gross domestic product (GDP) - Strong economic growth in China, India and U.S. will boost global energy future demand
3. Oil & gas supply & demand
4. Oil & gas inventory - days of forward demand