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EQUITY RESEARCH INDUSTRY REPORT

OIL SERVICE INDUSTRY OUTLOOK

Janice A. Rudd
Vice President
281/872-2054

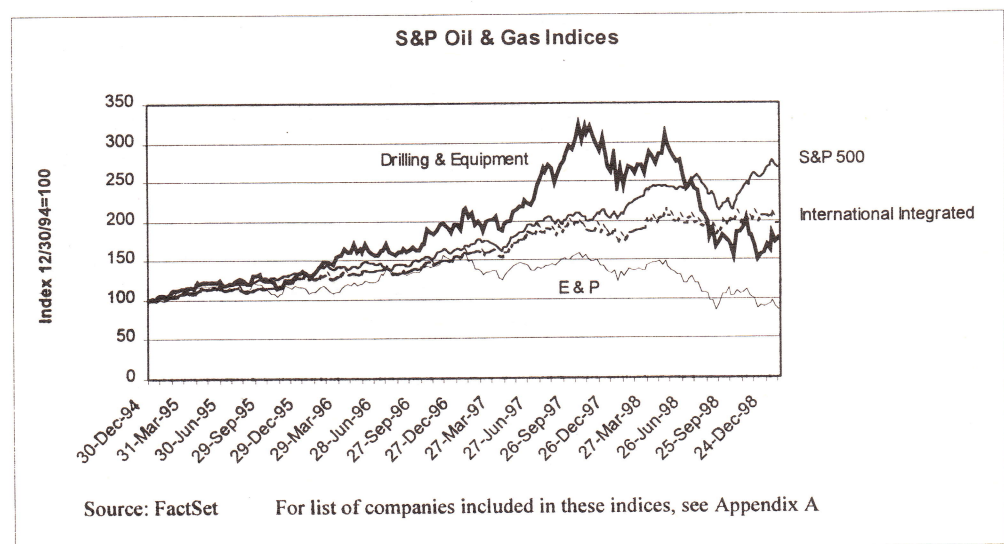
- US drilling activity is at its lowest level this century. Oilfield activity worldwide is falling.
- The oil supply and demand imbalance is partially self-correcting. The lack of maintenance and drilling will lead to reduced supplies. Lower oil prices will lead to increased demand. The timing is the biggest uncertainty.
- Actions to reduce oil and oil service company costs are lowering the commodity price thresholds needed to produce attractive returns from exploration and production spending.
- Restricted capacity is likely to cause the next recovery to occur even more quickly. The group bears watching for improving fundamentals. In the meantime, there may be ample opportunities for profitable trades.
- Any BUY recommendations are likely to be niche players whose products and services provide the returns expected by oil companies even at today's lower prices. Some high potential projects are likely to withstand the budget axe for an extended period.

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Why It Should Not Take A Decade To Recover

After a dismal decade, the oil service industry staged a remarkable recovery from late 1994 until the fourth quarter of 1997. From the Arab Oil Embargo until the early 1980s, the worldwide boom in the oil and oil service industries was fuelled by the prediction of ever-increasing oil and natural gas prices. **The industry ignored one of the most fundamental principles of economics--that higher prices reduce demand.** As consumers conserved energy--replacing the world's capital stock with more efficient automobiles and appliances, lowering thermostats and turning off lights, the demand for oil fell just as new, higher cost supplies came on stream. The result was an industry-wide depression that lasted more than a decade. After the natural gas price drop in 1992 and the oil price fall in late 1993, commodity prices experienced almost four years of relative stability. The most remarkable feature of the most recent industry upturn was that it occurred without the expectation of higher commodity prices. Oil companies found themselves able to increase exploration and production (E&P) activity, and the industry was able to grow significantly for the first time in more than a decade. The industry's expansion since 1994 is quickly being reversed. Companies are now laying off personnel, shuttering facilities and stacking equipment.



More stable prices allowed for easier budgeting of oil company expenditures. Advances in technology and bust-compelled cutbacks reduced the cost of finding and producing oil and gas. Activity increased. Virtually all stocks in the oil and gas related sectors saw substantial price appreciation—the oil service sector most dramatically. The Standard and Poor's Drilling and Equipment Index far outperformed the S&P 500 from early 1996 through the first half of 1998. **The Asian economic crisis precipitated an abrupt end to the industry's recovery.** Nations that experienced double-digit oil consumption growth suddenly saw their economic and energy demand growth reverse. Additional economic ills in Russia and Latin America rocked the oil supply and demand balanced more. The Organization of Petroleum Exporting Countries' ill-timed decision to boost quotas in November 1997 was the final nail in the coffin.

Now we are faced with an environment where the price of oil is below its pre-Arab Oil Embargo level in real terms. In order to maximize their shareholders' returns (at least in the short run), oil companies are slashing expenditures on exploration, maintenance and development. Natural gas prices are just below levels that most oil companies need to justify exploration. However, sharply reduced operating cash flows and anemic debt and equity markets curtail the funding of all projects and thus the oil service companies' revenue. The retrenching has commenced. It seems that oil or oil service company layoffs are announced almost daily. A slew of profit warnings are announced quarterly.

Today's environment gives rise to a host of questions. Can things possibly get worse? Of course. Unless a stock hits zero, it is always possible to go lower. With no relief in sight for oil prices, what are these stocks worth? With 1999 oil company budgets still in flux, most oil service companies have very little visibility for this year's results and thus are giving very little guidance to analysts and investors. It is hard to apply historical earnings, cash flow or EBITDA multiples to such uncertain numbers. An asset's value is dependent on the expectations for its market. Needless to say, with these limitations, finding stocks to recommend is difficult. We will start with some industry fundamentals to provide a framework for our investment thesis.

Dollars, Data, Drilling, Development

It is easy to think of the upstream crude oil and natural gas industry in terms of four D's--dollars, data, drilling and development. This is the "E&P timeline"--i.e. dollars are used to collect data, which will determine the drilling location, which, if successful, will need to be developed. It is important to note that while the phases of the E&P timeline must recover in order, the previous phase does not have to decline as the next phase improves. Furthermore, a cutback in one phase will create a (usually time-lagged) downturn in the next.

Dollars

Oil company E&P budgets translate directly into service company revenue. Spending on E&P has always been determined by the returns generated by the projects available to the oil company. While oil service companies and their oil company clients are mutually dependent, the biggest difference in measuring their financial performance will be that the oil companies' final products are sold at commodity prices; oil service companies' pricing is determined by the supply and demand for their individual products and services. To calculate the oil companies' returns, one must also determine the costs involved—both the cost of the goods and services needed for the project and the cost of capital to fund the project. In 1995—a year of unremarkable commodity pricing, the domestic integrated oil companies earned over three times more per barrel from upstream activities than they did downstream. **With today's technology able to lower finding, development and production costs, those returns are attractive to most companies even with a West Texas Intermediate crude oil price level of \$17-18 per barrel, or with US natural gas prices at \$1.85-2.00 per thousand cubic feet.** Recent cost cutting and lower prices for oilfield equipment and services may have reduced these numbers already, and today's and future actions will lower these threshold prices even more.

In 1996 and 1997, oil companies were not budgeting for oil prices above \$18-19 per barrel even though 1996's average was \$22 and 1997's over \$20. Nor did they budget for US natural gas prices over \$2.00-2.10 per mcf, though realized prices were frequently higher. **Oil companies fix a budget for a range of prices and thus rarely adjust plans while commodity prices are within the range, i.e. in general; an oil company will spend no more with the price of oil at \$19 per barrel than at \$17.** For large oil companies, the prospect of re-running budgets during the course of the year is more than just daunting. The small companies tend more toward spending their cash flow as it is earned, but their budgets are smaller and they have less financial strength to withstand a poor decision. **While there is no question that oil companies were pleasantly surprised at 1996 and most of 1997's prices and enjoyed the resulting higher cash flow, each project's return was calculated under budgeted, not realized prices.** This meant that oil prices falling from the low \$20s to the high teens in late 1997 did not threaten project economics, but once price expectations fell to the mid-teens and lower, companies began cutting their budgets. Global Marine's Summary of Current Offshore Rig Economics reported that lower oil prices had no effect of drilling activity or dayrates in any region of the world until April 1998.

Data

After spending plans are set, the first decision to be made is where to start looking for oil and gas. This part of the E&P cycle begins with basic geology and progresses to the acquisition and interpretation of seismic data. The cost of drilling a well can range from only a few hundred thousand dollars for a shallow, onshore well to tens of millions for a deepwater well. The more expensive the well, the more important it is to gain as much information as possible before drilling starts. **Over the past four years, oil company recognition of 3-D seismic technology and its benefits became universal.** Data is also gathered and utilized during the drilling and development phases. Information provided during drilling can make certain the well is in the targeted location, blowouts are prevented and formation damage is minimized. Data is used during development to maximize the recovery of oil and gas.

The sheer quantity of data provided by a 3-D survey and the advanced computer processing and interpretation assures higher quality information upon which to base drilling decisions. Not only is the information helpful in reducing the number of unsuccessful wells drilled, but also enables fewer wells to be drilled to develop a field because optimal locations can be judged from the start. However, 3-D seismic interpretation still contains a good bit of "art." Today's integrated information systems are improving the odds by utilizing more and more of the available information, including rock and fluid analysis, well logs, production histories, geological knowledge and drilling information.

While some land crews have been idled around the world, marine vessels are keeping busy thus far. Activity has fallen enough to increase price competition, but not enough to leave ships idle. Oil companies generally find seismic expenditures money well spent and are reluctant to axe this part of their budgets. However, seven new high-capacity vessels are scheduled to be delivered in the first half of 1999. Seismic vessel owners are hoping that older, less efficient boats will be retired to make room for this new equipment and that pricing will not suffer.

Drilling

After the well location and target zones are established, a suitable rig must be contracted to do the drilling. Rig specifications will be determined by water depth (offshore), well depth, expectations for downhole pressure and temperature and surface conditions. Sometimes difficult formations, obstacles on the surface or other difficulties may require that the well be drilled at an angle instead of straight down. Directional or horizontal wells are also drilled during field development to expose more of the wellbore to the productive formation, which will boost production. Measurements taken during drilling by mud logging and logging-while-drilling (LWD) tools add even more ammunition to the oil company's information arsenal. Wireline tools provide additional information, but drilling must be halted and the drillstring removed to lower the tools into the well. Despite all the information available, the only way to determine if crude oil and natural gas is present is to drill a well. The only way to determine exactly how much is present is to produce it.

Drilling tends to be one of the earliest and greatest sufferers in a downturn.

Depending on lease expiration, rig contract term, field potential, etc., oil company managements may remain committed to certain projects, such as the deepwater. Because of the risk associated with exploration, it can be near the top of the list for reduction. While development drilling generally inspires more confidence in the outcome, there is less incentive to rush additional supplies from a producing field to a market which pays only \$12 a barrel.

Development

While exploration is usually the riskiest part of the upstream cycle, the location of the reserves can make the development phase the most expensive.

On land or offshore, oil and gas must be processed and transported to the consumer. Onshore fields will generally have much lower development costs than offshore. In the relatively well-developed shallow waters of the Gulf of Mexico and the North Sea, existing infrastructure often can be tapped for new fields, reducing the upfront investment. Offshore areas that are lightly explored, such as West Africa, often require large capital outlays to bring a new field on stream.

If the initial investment is large, the value of information is even higher. More data can be gathered through drilling delineation wells, logging and coring, production testing and tying all the results together with the seismic data. This information will allow better estimates of production rates and reserve life so that the proper infrastructure to maximize cash flow from the field will be built. Gathering all this information often means a two- to three-year lag between the discovery well and the decision to proceed with development when there is little existing infrastructure to be utilized.

Most of the offshore construction and service companies are feeling a delayed reaction to falling oil prices. With hefty backlogs from projects drilled during the industry's recovery, they have been working through the backlog, but generally not replacing all of it with new orders. Again, certain high-potential or long-term projects (like deepwater) tend to retain their funding and go forward even with sharply reduced commodity prices.

Diminished Dollars

Several oil companies recently announced second or third rounds of budget cutbacks. Texaco (TX-\$47.25) recently announced its 1999 spending would only reach \$3.7 billion, down 14% from the previous 1999 budget of \$4.3 billion, which assumed an average WTI price of \$15 per barrel. On 6 January, Phillips Petroleum (P-\$38.31) announced that capital spending in 1999 would total \$1.5 billion, 29% less than 1998. E&P spending will bear the brunt of the reductions. Low oil prices and a new government leave Petroleos de Venezuela SA facing 1999 with its lowest budget in a decade and 30% below last year's spending. Even companies not making public announcements are making in-house calculations and deferring spending. Exploration and maintenance on aging fields are often among the first projects cut. **Oil company spending may be down 25% or more in the first half of the year as a "wait and see" attitude takes hold.** Furthermore, executives of many oil companies may not have communicated the extent of the spending cutbacks down to the field level. All of these cutbacks translate into reduced service company revenue. Inter-service company competition has returned full force. Prices are being cut to prop up utilization and cover fixed costs. Internally, service companies are slashing costs to boost margins.

Priorities

Oil companies are in a constant struggle to replace reserves. Imagine trying to replace Exxon's (XON-\$69.63) 1.6 million barrels a day oil production and 6.3 billion cubic feet a day natural gas production. It would be impossible without "elephant hunting." When Unocal (UCL-\$28.75) announced cuts, they specified that the axe would fall where returns were lower, political risk was high or the payout timelines were long. They mentioned that development of the deepwater Indonesia field West Seno would continue full speed ahead. Oil companies may justify continuing to spend on deepwater development (but risky exploration may suffer) since the potential is huge, the drilling rigs are on long-term contract and the first oil or gas may be years away. Because of the field size and high production rates, finding and development costs of a deepwater field can be only \$5 or 6 per barrel. The Central Gulf of Mexico Lease Sale last March was another example of oil company priorities. Oil prices had already begun their steep descent when one of the most successful lease sales occurred. The sale received \$810 million in high bids and deepwater blocks dominated the bidding. While interest is still high, the limited numbers of deepwater rigs that are being released from contracts provide available supply that hasn't existed since 1994. **Deepwater and harsh environment operators may view this as an opportunity to find rigs at lower dayrates, leaving options unexercised or worse.**

Fear of Megamajors

Some concern has been expressed about mergers between some of the largest oil companies having a negative effect on the service industry. Quite simply, low activity periods will be a buyer's market and strong activity periods will be a seller's market. Even in specialized areas such as the deepwater, there are enough operators to bid up rig rates when commodity prices are healthy and stable. With oil prices under \$15 per barrel, activity will fall regardless of whether Exxon and Mobil (MOB-\$86.06) operate as one company or two. Probably the biggest problem faced by the service industry today is that oil company decision-makers may be sending out resumes instead of bid requests. In the long run, the greater

efficiency of the new company should reduce finding and development costs making a greater number of projects economic at any commodity price level, thus increasing overall oilfield activity. **Today's mergers and cost cutting should lay a foundation for the next upturn to begin at lower commodity price levels.**

OPEC is Not the Answer

We believe the oil company spending required to bring E&P activity up to levels that will boost utilization and stop cut-throat pricing among the service companies will only come with oil price expectations of \$16-17 per barrel or higher. We feel it is extremely unlikely that OPEC, even with cooperation from a few non-OPEC countries, could cut production enough to reach this price target. We believe a meaningful increase in the price of oil must be demand driven. Not only does oil demand from Asia need to bounce back, but other emerging markets cannot follow in their path. The latest turmoil in Brazil could lead to recession and falling oil demand, releasing some of Brazil's current imports onto world markets. While \$14 per barrel prices would improve cash flows for oil companies, at this time, it is unlikely to prompt the spending necessary to bring oil service markets back into balance.

Additional output from Iraq may also dampen future price expectations. While Iraq's limited production capacity eliminates an immediate threat, the psychology would sour if restrictions on oil sales were lifted or an opening up of Iraq's oilfields to foreign investment occurred.

The Good News

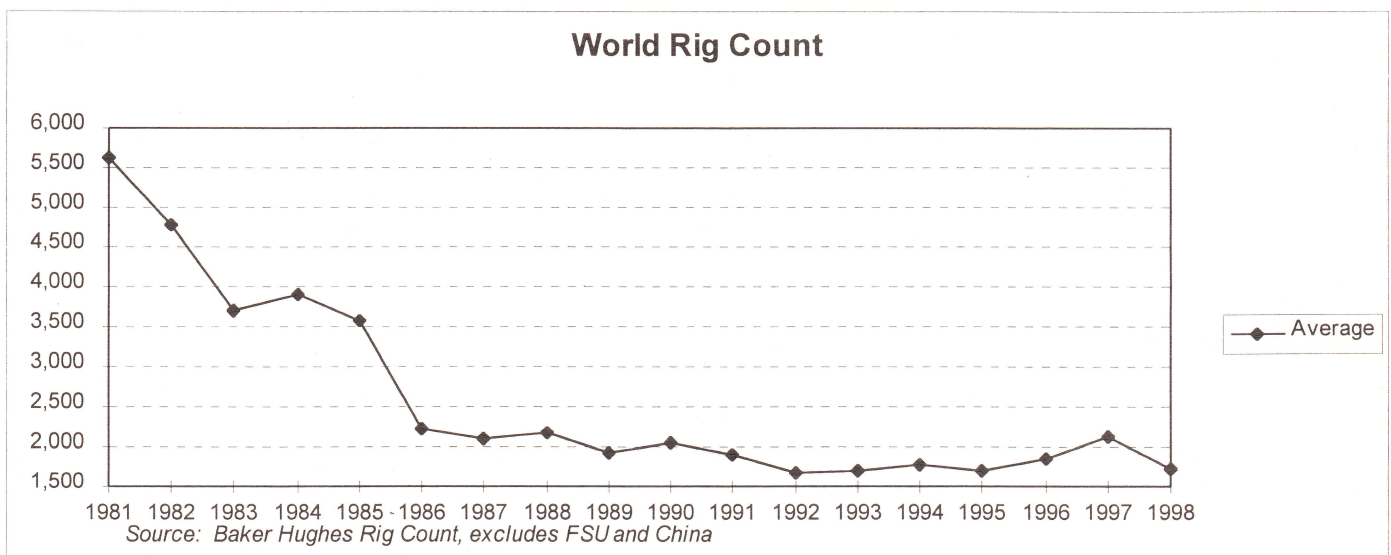
History Was Not Forgotten

Unlike the late 1970s-early 1980s boom, the latest recovery did not provoke massive overbuilding of equipment. We believe if oil prices returned to \$16-17 per barrel or better, supply and demand for most oil service wares would be roughly in balance. The supply of mobile offshore drilling rigs doubled between 1976 and 1983. Newbuilds and conversions from non-drilling vessels completed or on order since 1996 will add 10% to the world's fleet of 464 rigs. Of the total, only 10 of these newbuilds and conversions are not under contract.

Competitive Mobile Offshore Rig Additions					
1998-2001					
	Current Supply	Newbuilds	Supply Increase	New Rigs w/Contracts	New Rigs w/o Contracts
Jackups	298	9	3%	3	6
Submersibles	7	0	0%		
Semisubmersibles	136	23	17%	20	3 *
Drillships	<u>23</u>	<u>14</u>	<u>61%</u>	<u>13</u>	<u>1</u>
Total Floaters	159	37	23%	33	4
Total Fleet	464	46	10%	36	10
Under construction includes newbuilds and conversions from non-drilling equipment					
* Completion of all three dependent on signing of contract					
Source: Offshore Data Services					

Reduced Capacity

Both the oil service companies and their oil company clients have been through more than a dozen difficult years. There were 10,000 rigs running in 1981, 4,000 rigs in the former Soviet Union and China and 6,000 in the rest of the world. Those 6,000 declined to 1,550 in 1992, recovered to 2,300 in December 1997, and now have dropped under 1,600. Between 1982 and 1993, the US oil business lost more jobs than steel, autos and textiles combined. Almost all of the people who built the 320 offshore rigs added to the world supply between 1978 and 1985 have long since moved on to other careers. It took 15 years to work off the excess supplies needed to support 10,000 rigs. While North American onshore drilling activity is at its lowest level in this century, that translates into only 447 more stacked rigs versus the September 1997 peak. Sixteen months after the December 1981 peak, there were 2,607 rigs stacked. There are 125 contracted rigs in the Gulf of Mexico versus the high of 159 in February 1998.



As the service companies cut spending on the repair and maintenance of their equipment, cannibalization and retirement will be the order of the day. Falling dayrates also make the economics of converting offshore rigs into production units more attractive. **When activity picks up again, fewer pieces of equipment will have to be utilized to bring supply and demand back into balance and improve pricing.** Another indication of the shrunken capacity of the industry is that shipyard costs for deepwater rigs to be delivered between 1999 and 2001 vary as much as 50%.

People

While today's personnel cutbacks hurt those let go, they may be doing even more damage to the industry's future. Many of the newly unemployed are recent entrants to the oil and gas workforce. As recently as the fall of 1997, Houston's help wanted section was crammed with oil and gas related opportunities. Now there are only a few ads for geophysicists. During the most recent expansion, companies were searching for welders, rig hands, accountants, geologists, geophysicists, and petroleum engineers to name a few. While some of these skills are easily transferable to prospering industries, others are not. People

who entered the industry because of attractive salaries and benefits and expanding opportunities now find themselves hunting for new positions. How many university students will be choosing geology, geophysics or petroleum engineering as their major? Houston's Rice University had one graduate in these fields in 1987. Three times in the past two decades the industry has been through major retrenchments as well as numerous smaller ones. What will happen next time the industry needs to expand? What will be needed to attract qualified people next time?

Attractive E&P Returns at Lower Commodity Prices

The oilfield boom of the late 1970s and early 1980s was based on expectations that oil price increases would continue indefinitely. The last upturn in oilfield activity was not based on rising commodity price forecasts, but flat price projections at below-market levels. **The oil companies' ability to generate attractive returns at lower commodity prices means that at any given price level, a greater number of projects are economic and the demand for oilfield products and services is higher than just a few years ago.** As the oil and oil service companies once again slash costs, they are lowering the commodity prices necessary to generate attractive returns.

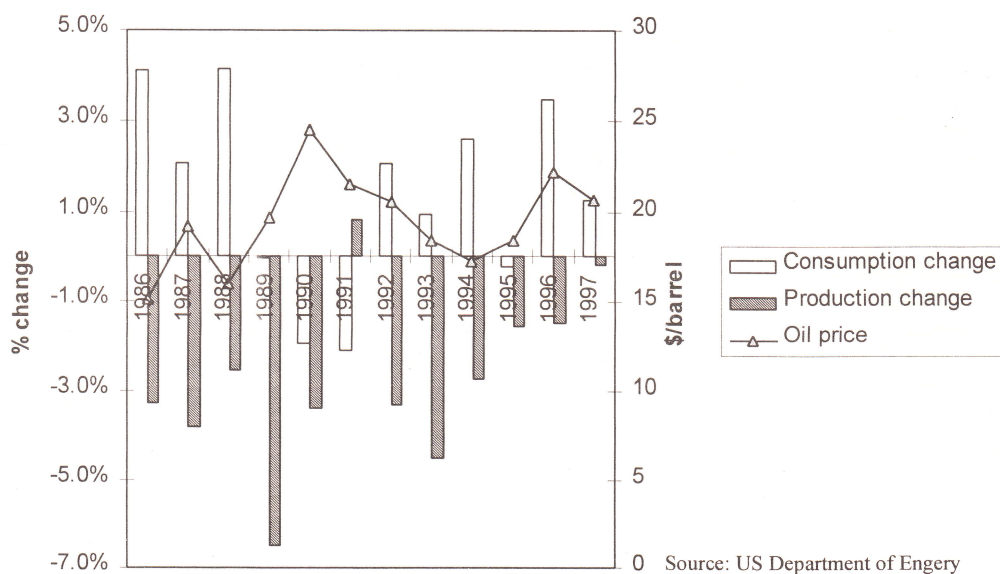
Higher-Margined Activity

The search for oil began about 140 years ago. Today, it would appear that most large oil and gas fields in easily accessible places already have been discovered. The inability to move forward with investment in the former Soviet Union has freed dollars to be spent in other areas. The risk and expense of deepwater exploration and development seems attractive compared to the political risk in these high potential areas. **In the constant struggle to replace production with new reserves, oil companies are turning to deep water, remote locations, deeper horizons, and more difficult formations.** These wells require premium products and services that earn higher margins for the oil service companies. Furthermore, the additional wells drilled to develop a discovery, which are more likely to use directional drilling, multilateral completions, etc., will also produce better-margined business for the service companies.

Working Towards Balance

Two obvious factors will help oil supply and demand move back into balance. **First, the result of spending cutbacks will be reduced supplies.** Failure to drill new wells and service old wells will lead to lower production. **Second, lower oil prices lead to increased demand.** The 1986 and 1988 oil price drops led to US consumption growth of more than 4%. The popularity of sport utility vehicles and minivans is evidence of the American consumers' indifference about fuel efficiency. Chevrolet's (GM-\$91.75) web site proudly displays the Suburban's tank size (a whopping 42 gallons) and recommended fuel type (87 Octane), but try to find the estimated miles per gallon.

US Consumption and Production vs. Oil Price

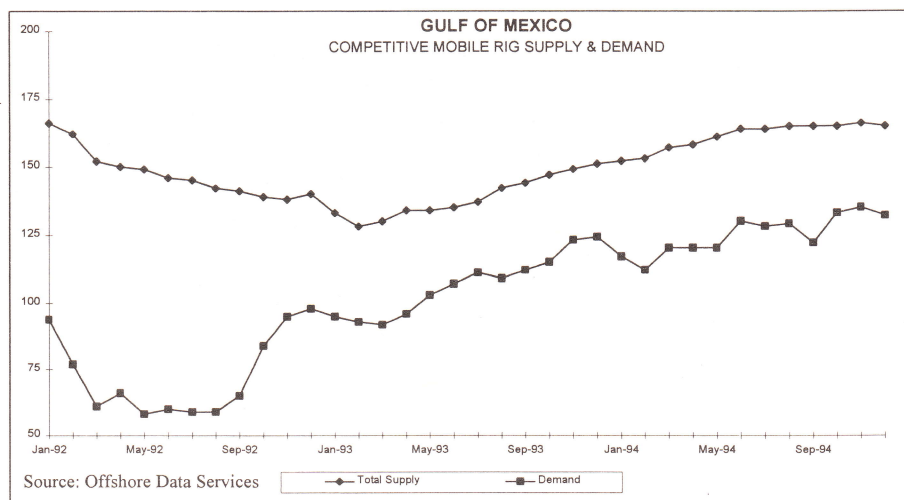


With OPEC oil revenue falling to its lowest level since 1989, member governments are feeling the pinch of lower oil prices. Less money to spend on social services could foment civil unrest, especially in some Gulf States where underemployment is already an issue after oil money paid for expensive educations. Indonesia's fragile economy and tension-filled streets cannot benefit from low oil prices and empty government coffers.

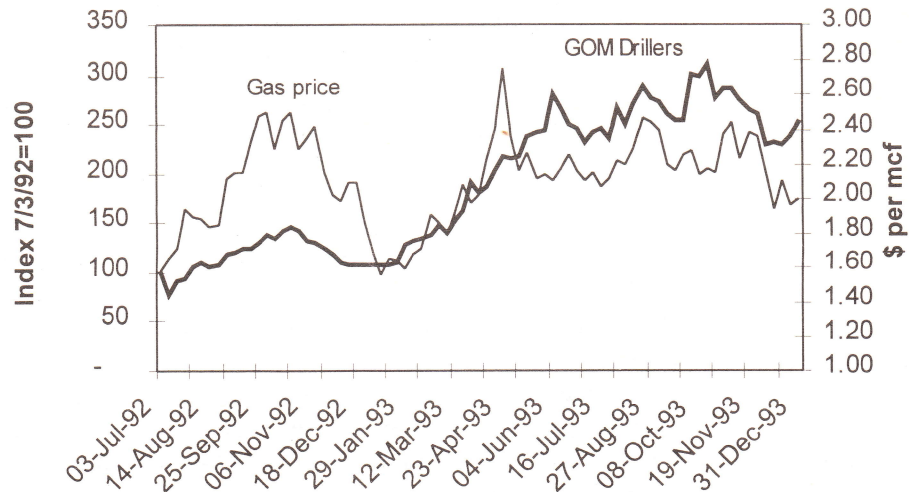
Recent History

Gulf of Mexico

In late 1992 and the first half of 1993, shareholders of offshore drilling companies were treated to a rally as a cold winter boosted natural gas prices and the Gulf of Mexico threw off its title of the "Dead Sea." Other service companies benefited from higher natural gas prices to a lesser extent. This short-lived rally was extinguished by a flood of rigs from overseas markets returning to the Gulf and a fall in oil prices in late 1993.



Gulf of Mexico Drillers vs. Natural Gas Price

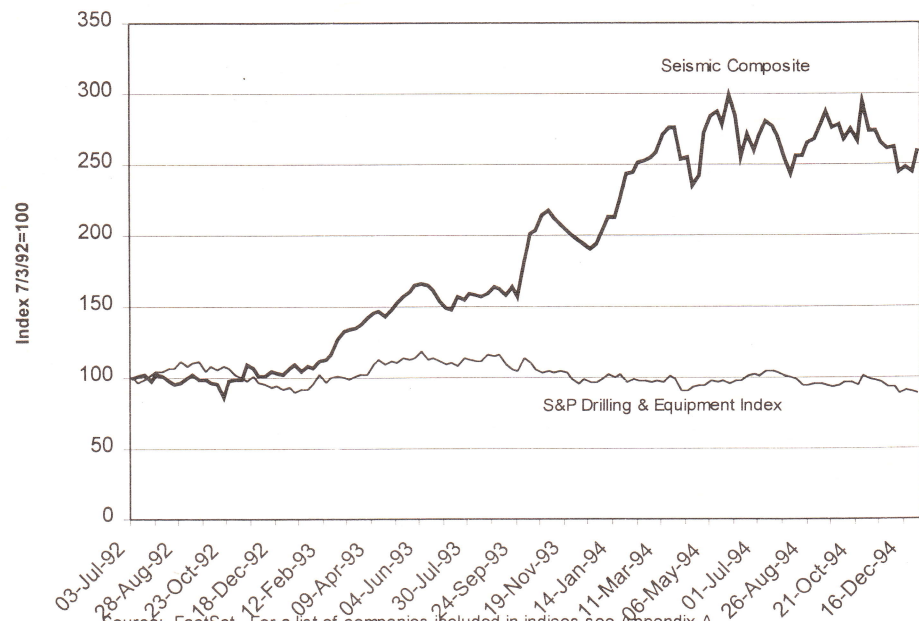


Source: FactSet For a list of companies included in indices, see Appendix A

3-D Seismic

One rally effectively illustrated that oil service company results are based on the supply and demand for a company's products. **Some oil service stocks are able to buck industry trends, prospering in a lackluster commodity price environment.** The industry's acceptance of three-dimensional seismic led to significant appreciation of the related stocks) from mid-1992 through the first half 1994. As the costs of shooting, processing and interpreting 3-D seismic data fell (due in part to plummeting computing prices), oil companies realized the value of the information provided. However, earnings shortfalls at some of these companies caused a choppy environment for investors.

Seismic Stocks vs. S&P Service Index



Source: FactSet For a list of companies included in indices see Appendix A

Deep Water

The first sign of the broad-based recovery was higher dayrates for the deepwater drilling rigs. In December 1994, Reading & Bates announced a contract for the Jack Bates at \$80,000 per day, \$15,000-20,000 more than other recent contracts. As a post-boom development, the supply of fourth-generation semisubmersibles was never overbuilt. The first well in 3,500 feet of water was drilled in 1976. However, the first field put into production at these water depths (3,370 feet) was by Petrobras in 1994. **As the technology to economically develop deepwater fields arrived, the demand for rigs capable of drilling at these depths soared.** As rigs moved out to the limits of their capabilities, competition for work between rigs diminished and competition between the oil company operators appeared. Under a more stable commodity price environment, rig owners regained leverage over the operators and dayrates exploded. Throughout this period, oil company spending plans were based on WTI prices of \$17-19 per barrel and natural gas prices of \$1.80-2.10 per mcf. **Higher actual prices provided more cash flow, but did not change the economics by which projects were evaluated.**

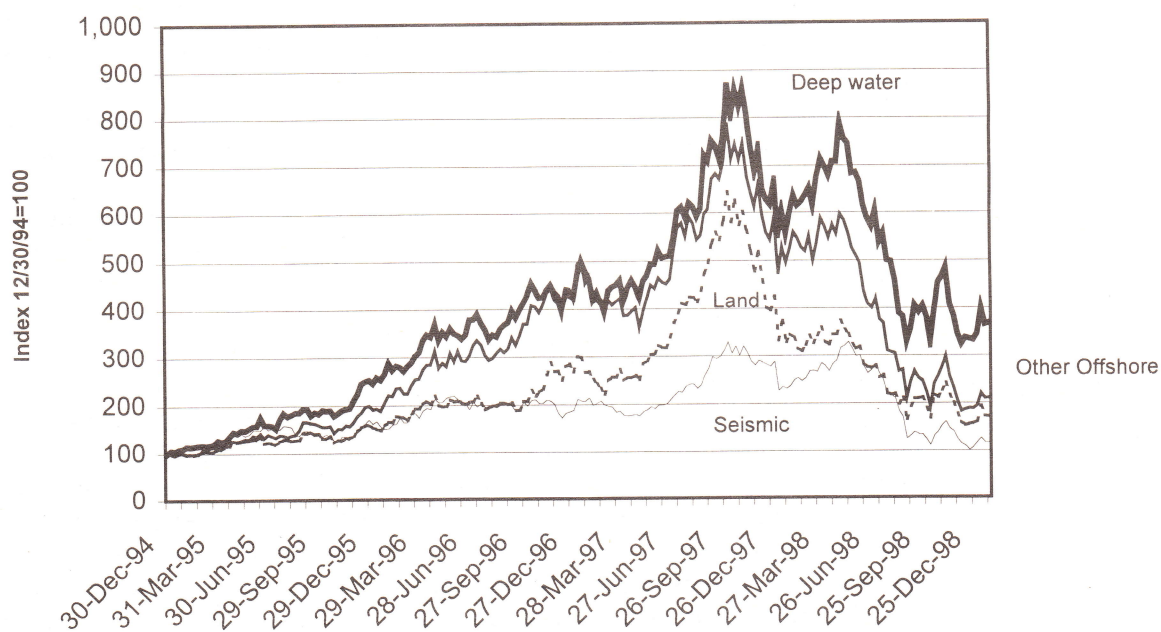
Broad-Based Recovery

As the fleet of floating drilling rigs was pulled out to greater water depths, competition between semisubmersibles and jackups vanished. Increasing oilfield activity treated all rig owners—from semisubmersibles to well service rigs—to higher utilization and allowed dayrates to rise. The high fixed costs inherent in the business meant that an incremental dollar of revenue fell to the bottom line largely intact. Our three drilling indices—deepwater, other offshore and land—saw the biggest stock price gains of the industry's sectors.

We believe it is the long-term nature of the deepwater drillers' contracts and the limited supply of rigs allowed the group to be the best performer for the period 1995-present. The large-capitalization stocks' diversified earnings, financial strength and liquidity contribute to the group's resiliency, declining only 41% from the peak.

Oil Service Sector Performance 1995-1999					
Most Resilient	Peak	Current	Decline from Peak	Biggest Gain to Peak	Best Performance for Entire Period
Large-cap	325	193	-41%	Deepwater	Deepwater
Mid-cap	619	278	-55%	Offshore Drillers	Mid-cap
Deepwater	874	368	-58%	Land Drillers	Offshore Drillers
Offshore Services	338	140	-58%	Mid-cap	Large-cap
Boats	388	139	-64%	Boats	Land Drillers
Seismic	330	117	-65%	Offshore Services	Offshore Services
Offshore Drillers	787	210	-73%	Seismic	Boats
Land Drillers	644	171	-73%	Large-cap	Seismic
Source: FactSet For list of companies included in indices, see Appendix A					

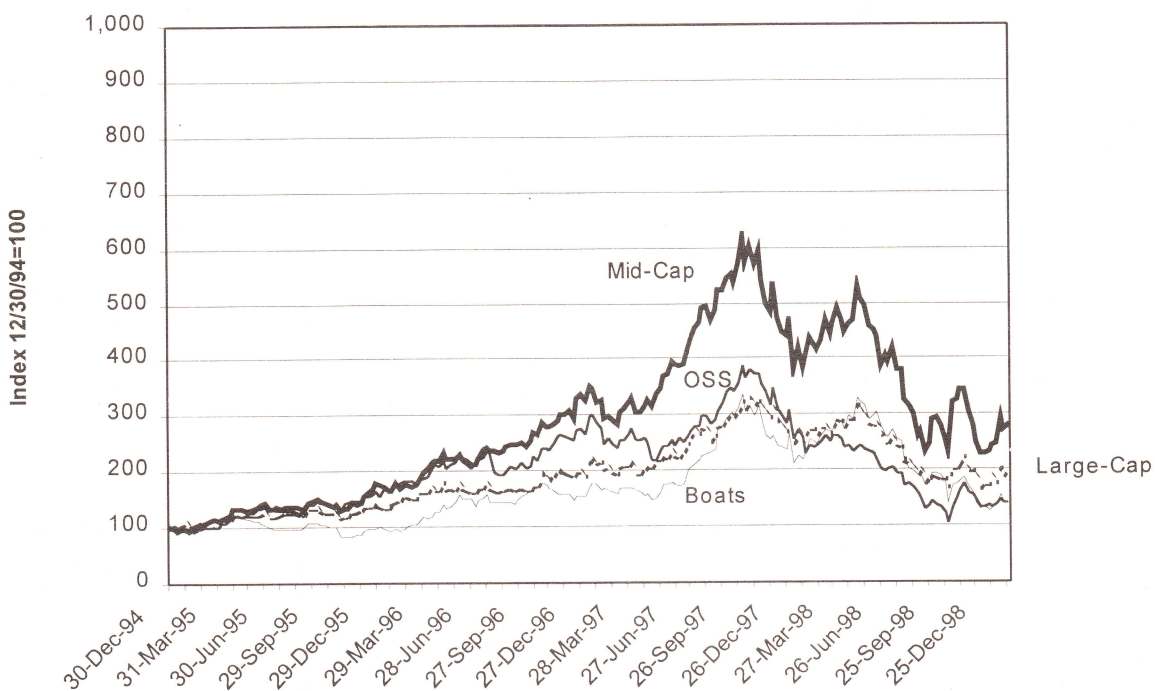
Drilling and Seismic Composites



Source: FactSet

For list of companies included in indices, see Appendix A

Offshore Services and Diversified Composites



Source: FactSet

For list of companies included in indices, see Appendix A

Until the spread of the “Asian flu” is checked and these battered economies begin to grow, we believe that oil prices will stay below the \$16-17 per barrel level that can create healthy E&P spending budgets. Our strategy will be to identify niche players whose products or services provide the returns desired by oil companies even under the current commodity price environment.

We will not recommend the purchase of shares just because they are cheap. Shares of companies with falling earnings and cash flow should be cheap. Most service companies have little or no visibility past the next few weeks. We will recommend stocks that we believe have a good chance to appreciate. There are still companies with smart managements and good products. However, without a recovery in oil company spending, it would seem unlikely that these stocks could outperform the broader market. **If stocks in other industries can produce better returns, then those are the ones to own. The nature of the oil service business warrants keeping a close eye on industry trends. Past upturns occurred quickly, substantially rewarding savvy investors. We believe that with the cost-cutting measures now taking place, capacity will be quickly strained when oil companies begin to boost activity levels. Attracting qualified people after laying off tens of thousands (29,300 in 1998) now and expanding facilities after shuttering plants today is likely to be difficult. Pricing will likely to rebound with slightly rising utilization.**

When activity begins to recover, the most asset-intensive businesses will see the biggest improvement in earnings per dollar of revenue increase because of the higher proportion of fixed costs, but will also face the most downside risk. One need only examine the drilling contractors highs and lows for proof. Until activity increases, competition between rig owners for the limited number of jobs should remain fierce. Rig owners have every reason to drive down dayrates until they reach variable costs in order to keep a rig utilized and covering some of the fixed costs. Large, diversified companies offer more earnings stability, but their individual businesses face the same cutthroat competition.

In today's market, there are few stocks with improving fundamentals. These companies will be the ones offering products and services that provide the customer with the required return at oil prices in the low teens. **We expect to find any BUYS will be companies with technologies that lower the costs of finding or producing oil and gas or those that serve the “protected” niches.**

After a few years of trading without direct links to oil prices, the performance of the sector is once again highly correlated with oil prices. We believe that this is likely to continue until commodity prices are high enough to sponsor healthy spending on E&P. We would caution investors from piling in when the stocks begin to run without a significant recovery of oil prices. **Oil companies are not likely to meaningfully increase spending plans at least until oil prices appear sustainable at or above the \$16-17 per barrel level.** Fourteen dollars a barrel is not the answer to the oil service industry's woes. As oil prices gyrate, so will these stocks. It seems the Dow Jones Oil Drilling and Oilfield Equipment and Services indices are in the leading or lagging industry groups several times per week. We see this as an indication of two things. **First, investor interest in these stocks is high, primarily because of the (by pre-Internet standards) spectacular returns generated in up cycles.** Second, there are trading

opportunities created by the sector's volatility. We believe that the group deserves a watchful eye since reduced levels of oilfield equipment and personnel point to a rapid recovery when oil price expectations stabilize above \$16-17 per barrel.

If Asia's economic ills are prolonged or Latin America's economies follow, a protracted period of low oil prices is probable. Under this scenario, we believe oil and oil service companies will be quicker to make cuts and make them deeper than in the 1980s. Merger and acquisition activity should rise, producing additional cost-cutting opportunities. Lessons were learned. **As these companies lower costs and improve efficiency, attractive returns will be generated at lower commodity prices. Obviously, the lower oil prices go, the longer and more difficult the adjustment period will be.**

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

Appendix A

Deepwater Composite			S&P Oil (Int'l Integrated)		
ATW	Atwood Oceanics, Inc.	\$ 19.00	CHV	Chevron Corp.	\$ 73.69
ARTHF	Arethusa Offshore LTD	N/A	XON	Exxon Corp.	\$ 69.63
DO	Diamond Offshore Drilling, Inc.	\$ 23.38	MOB	Mobil Corp.	\$ 86.00
RIG	Transocean Offshore, Inc.	\$ 25.06	RD	Royal Dutch Pete Co.	\$ 41.38
			TX	Texaco, Inc.	\$ 46.75
Offshore Composite			S&P Oil & Gas (Drilling and Equipment)		
GLM	Global Marine, Inc.	\$ 8.19	BHI	Baker Hughes, Inc.	\$ 16.94
NE	Noble Drilling Corp.	\$ 13.13	HAL	Halliburton, Co.	\$ 28.50
RDC	Rowan Cos., Inc.	\$ 8.94	HP	Helmerich & Payne, Inc.	\$ 17.00
ESV	Ensco Int'l, Inc.	\$ 9.00	RDC	Rowan Companies	\$ 8.94
MRL	Marine Drilling Cos., Inc.	\$ 7.06	SLB	Schlumberger LTD	\$ 47.75
SDC	Santa Fe Int'l Corp.	\$ 13.44			
FLC	R & B Falcon Corp.	\$ 6.69			
Land Driller Composite			S&P Oil & Gas (Exploration and Production)		
NBR	Nabors Industries, Inc.	\$ 11.69	APC	Anadarko Petroleum Corp.	\$ 27.63
PKD	Parker Drilling Co.	\$ 3.06	APA	Apache Corp.	\$ 18.06
PTEN	Patterson Energy, Inc.	\$ 3.25	BR	Burlington Resou, Inc.	\$ 29.56
			KMG	Kerr-McGee Corp.	\$ 34.50
Seismic - 1992 through 1994			ORX	Oryx Energy, Co.	\$ 12.50
LMRK	Landmark Graphics Corp.	N/A	UPR	Union Pacific Resources Group	\$ 8.44
IO	Input/Output, Inc.	\$ 6.19			
PGO	Petroleum Geo Svcs ASA	\$ 12.88			
Seismic - 1995 to Present					
LMRK	Landmark Graphics Corp.	N/A			
EGEO	Eagle Geophysical, Inc.	\$ 2.94			
DWSN	Dawson Geophysical Co.	\$ 6.13			
GGY	Compagnie Generale De Geophysique	\$ 9.75			
VTS	Veritas DGC, Inc.	\$ 11.88			
Boats					
TDW	Tidewater, Inc.	\$ 20.81			
TMAR	Trico Marine Services, Inc.	\$ 4.31			
HOSS	Hornbeck Offshore Services, Inc.	N/A			
HMAR	Hvide Marine, Inc.	\$ 5.38			
CKH	Seacor Smit Inc.	\$43.56			
Offshore Services					
OII	Oceaneering Int'l, Inc.	\$ 9.75			
BWG	Bouygues Offshore S A	\$ 12.44			
JRM	J Ray McDermott S A	\$ 23.00			
GLBL	Global Industries LTD	\$ 5.88			
Large-cap Diversified					
BHI	Baker Hughes, Inc.	\$ 16.94			
DI	Dresser Industries, Inc.	N/A			
HAL	Halliburton Co.	\$ 28.50			
SLB	Schlumberger LTD	\$ 47.75			
WAI	Western Atlas, Inc.	N/A			
Mid-cap Diversified					
BJS	BJ Services Co.	\$ 14.50			
CAM	Camco Int'l., Inc.	N/A			
SII	Smith Int'l., Inc.	\$ 25.00			
RON	Cooper Cameron Corp.	\$ 22.75			
Gulf of Mexico Drillers 1992-94					
ESV	Ensco Int'l, Inc.	\$ 9.00			
MRL	Marine Drilling Cos.	\$ 7.06			
GLM	Global Marine, Inc.	\$ 8.19			
NE	Noble Drilling Corp.	\$ 13.19			