

**Ghost in the machine**  
Middle East Energy  
and Resources  
Managing scarcity  
for the future



### Introduction

Oilfield service companies are everyone's friends across the oil and gas industry at the moment, and have been for some time. Their popularity and steady increase in status can be traced back to the mega-mergers of the oil and gas sector in the late 1990's when the cost-cutting drives of post-merger integration outsourced key operations in oil and gas exploration and production, with the promise of future financial benefits. The result has turned out somewhat differently; an outflow of mid-career talent from the sector has been difficult to replace, and increasing complexity around joint venture operations and their segregation of duties has led to well-publicized operational failures.

As a result of the increase in prominence of oilfield services companies, as well as the dependence of national and international oil companies upon them, the risks which oilfield services companies face have become risks to the whole sector. This article explores these oilfield services risks and the potential ways of mitigating them.

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### The nature of oilfield service company risk

Oilfield services are not one sector, but cover instead a huge range of products, services and systems that support oil and gas companies of all sizes in exploration and production activities. The key competitive edges of an oilfield services company are usually around availability, performance, quality, reliability, technical support and service and the price of equipment, materials and manpower. Because of the diversity of the services provided and (in certain areas) the relatively low barrier to entry, the oilfield services sector is an intensely competitive and cyclical industry. Periods of strong demand, tight inventories, and high prices are inevitably followed by weak demand, excess inventories, and competitive pricing.

Although the risks to oilfield service companies are exacerbated by the time lags that typify the oil and gas industry (spending stops quickly on a downturn but increases slowly in an upturn), an individual company's competitive position also reflects its management's strategy, as well as its attitude toward financial risk. These, together with customer base, growth strategy, and financial durability determine an individual oilfield service company's vulnerability to demand fluctuations. There exist, however, key areas which increase or lower the operational risk of an oilfield services company and these are discussed below.

Developing and deploying **technology** which demonstrably increases exploration and production success rates and reduces costs (through faster production, reduced drilling rig time, cleaner processing) can establish an oilfield services company as a technological leader, allowing it to build demand and market share for a sustained period of time without

direct competition. Constant innovation in oilfield technology lowers costs of drilling and completing wells, allowing quicker time to commercial production in technically challenging, remote, deep water environments. It follows that oilfield services companies must continually spend on engineering, R&D, or acquisitions of niche providers. This means very tight control over margins, profits and cash, particularly as research and development (R&D) spending must continue, even in a down cycle, to maintain competitiveness. While entry barriers vary according to product line and capital intensity of the services provided, any rights or patents for high-value technical processes or products, can raise entry barriers for new competitors.

As most oilfield services companies are unable to cover the entire spectrum of exploration or production activities, they are vulnerable, to a greater or lesser degree, to cyclical swings in the oil and gas industry. Larger oilfield services companies are more attractive to large international and national oil companies because they can cover the whole spectrum of activities. Extensive **coverage of activities** therefore mitigates a firm's financial exposure to the risks of a single market, makes it a more reliable subcontractor, provides opportunities for related follow-on sales, and creates a more sustainable platform for growth in profits and cash flow. Oilfield service companies with sophisticated product lines across the exploration and production (E&P) value chain, together with geographically diverse operations that enable them to support customers' full drilling programs, should be able to maintain reasonable downturns in cash flow levels. By contrast, local providers of niche services and/or commodity

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equipment related primarily to exploration and development are more likely to have more volatile cash flows.

An operation in more than one **geography** acts as an internal hedge against demand fluctuations and broadens an oilfield service company's ability to serve large customers. In international locations, services firms typically use independent local sales agents, distributors, or joint ventures, and maintain regional service centers near their customers. The world's major drilling regions are North America, Latin America, the Middle East, Asia-Pacific, the North Sea, West Africa, North Africa, and Russia. Major oilfield services companies operate in most or all of these areas.

Oilfield service companies rely on **financial strength** to provide value-added services at a competitive price, delivered quickly and reliably. During weak demand, customers will pressure prices downward, limiting providers' profitability and cash flow. Conservative debt levels and low fixed charges will strengthen a company's operating flexibility during this period, which can last for several quarters, causing demand for individual product lines to collapse completely. Oilfield services companies that enter a downturn with strong liquidity are well positioned to cheaply acquire targets that can augment product lines or geographic scope. Most service companies have relatively low fixed costs. But when market activity is strong, working capital needs are high. In a downturn, the ability to liquidate working capital can materially improve financial flexibility.

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## Oilfield service companies rely on financial strength to provide value-added services at a competitive price, delivered quickly and reliably

An oilfield service company's **strategy** in a market downturn around inventory liquidation, manufacturing plant closures, workforce reductions (especially where technically sophisticated and internally manufactured products are concerned) affects the amount of liquidity necessary to meet fixed and variable costs and the company's ability to respond to a recovery. As mentioned above, skilled labor is already in short supply and can be even scarcer in an upturn, as can ready manufacturing capacity.

### Mitigating general oilfield services risks

In common with many companies, the risks to oilfield services companies fall into three main categories:

**1. Industry risk** - The systemic exposure to fluctuations in core commodity prices and demand for services.

This risk should be reviewed and managed directly by the Board and senior management team. In the case of national oil companies, such risks may be mitigated to some extent by the fact that the entity ultimately sits within the parent group.

**2. Country risk** - The exposure to external country factors inherent in the environments in which services companies operate, including security, political risk, legal risk and transparency, bribery and corruption, exchange rates and local infrastructure.

Project teams should ensure that these risks are reviewed and appropriate responses are built into the structure of the project execution and contracting model wherever possible. At corporate level, the risk environment should be monitored, with the Risk Committee of the Board providing additional review and oversight. The Board should ultimately retain the approval authority for any significant new country entry. If an oilfield service company's operations are limited to one specific country, it follows that country risk is somewhat mitigated by its limited geographical remit, although a number of the above factors are still relevant.

**3. Project specific risk** - The risk pertaining to the execution of projects to customer specification, including technical risk, budget and schedule risk, performance guarantee levels, safety risk and environmental risk.

These risks should be directly managed by the relevant project teams, and be core to a process which reviews all new business proposals before any formal obligations are entered into. Business unit heads and their management teams should report monthly on individual execution risks to senior management and the Board. Through this review process, it is then ensured that there is constant focus and attention on maintaining and improving execution capability. Even where the number of projects is limited, project specific risks are still very real, notwithstanding any mitigating factors with industry and country risk.

In a well-run oilfield services company, which operates to best-practice international standards, there should be well-established procedures for the assessment and review of risks in relation to prospective projects, and to manage the risks in relation to existing projects. Before their award, all new projects and investments should be reviewed by a risk review committee of the relevant business unit, whose remit covers, among other things:

- moving to new territories
- establishing contractual commitments
- providing new services
- investing capital
- entering into lease commitments
- establishing banking facilities and/or granting security
- making acquisitions or the establishment of joint venture relationships

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Significant new projects and investments should also be reviewed by a corporate risk review committee, and potentially also by the Board directly, depending on the risk profile of the opportunity. A delegated authority framework defines the levels of review that are required based on the level of risk. This should ensure that a rigorous assessment of risks occurs for all projects and investments before any commitment is made, and that both project specific and country risk factors are assessed.



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### Mitigating specific oilfield services risks

Set out below are summaries of eight key risks that could lead to a significant loss of reputation, or that could prevent an oilfield services company from executing its strategy and creating shareholder value, along with an approach to mitigating these key risks.

#### Risk 1: Level of demand for services

Description: The demand for services is linked to the level of capital and operational expenditure by the oil and gas industry.

Mitigation: Demand for services may remain robust over the long term. Success in securing new and substantial contract awards should give good visibility of revenues through to 2012 and beyond. Geographic and service expansion could reduce exposure to some extent by increasing the size of the addressable market for service.

#### Risk 2: Oil and gas commodity prices

Description: Long-term expectations of the price of oil and gas may have an impact on the level of new investment in the industry and may therefore affect demand for services. Financial performance may be more leveraged to the price of oil and gas if there is co-investment in upstream oil and gas assets, and financial results may be impacted.

Mitigation: It is possible that an oilfield services business may not be significantly impacted by short-term fluctuations in oil and gas prices and can be robust to significant volatility in oil and gas prices over recent months. A proportion of direct exposure to oil and gas prices should be hedged, thereby providing a degree of protection to fluctuations in the sale price for oil and gas. Typically, a percentage of forecast production levels is hedged, with no hedging until a development has achieved steady-state production. Too much hedging is of course detrimental to revenues and profits in a rising oil price environment.

#### Risk 3: Availability of essential manpower

Description: The availability of skilled personnel remains perhaps the most significant challenge facing the oil and gas industry.

Mitigation: Policies to promote and reward on merit, management and technician training programs and access to international labor markets, in particular the Middle East, Indian Subcontinent and Asia, involvement in world-class projects and exciting prospects for continued growth are key enablers to attract and retain the necessary skilled personnel to undertake projects in hand.

#### Risk 4: Security

Description: Even in a single location, security risk remains heightened, given the strategic importance of the entity's activities.

Mitigation: Security should be located in a single function, responsible for high-risk geographical or process areas within the company. An expanded use of specialist consultancies and security services to advise and provide protection is increasingly frequent. Appropriate insurances should be in place to cover all staff and as part of this cover, specialist security services should be provided on the ground in certain locations.

#### **Risk 5: Business continuity**

Description: Oilfield services companies are potentially exposed to natural hazards, acts of terrorism, war and civil unrest that could impact infrastructure, through the unavailability of physical assets or access to systems and data.

Mitigation: Business continuity planning is critical, with operational centers having fully implemented and operational business continuity systems, with workable fallback solutions for key satellite centers. Accreditation to external standards should be an overriding objective.

#### **Risk 6: Exchange rates**

Description: Significant movements in exchange rates could impact financial performance.

Mitigation: It is often the case that oilfield services operating out of several locations have the majority of revenues denominated in US dollars or currencies pegged to the US dollar. In contracts priced in US dollars (or currencies pegged to the US dollar) where the company is procuring equipment or incurring costs in other currencies, the aim should be to have full hedging on transactional exposures using forward currency contracts. For those operations whose currencies are principally denominated in currencies other than the US dollar, companies often do not hedge foreign currency profits generated by these activities, as they are substantially matched by foreign currency overhead costs.

#### **Risk 7: Changes in sovereign laws and contract enforcements**

Description: Although this risk is can be less pronounced where the oilfield services company is the subsidiary of a national oil company, oilfield services companies often operate in a number of countries where their ability to rely upon contracts for protection is potentially reduced by the opaqueness of the local legal system.

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Mitigation: This particular risk needs careful monitoring, and wherever it is perceived to be significant, a range of measures should be deployed to reduce and limit exposure through the use of, for example, out of country arbitration and advanced payments. Specific consideration of this risk should be a feature of all new business risk reviews.

#### **Risk 8: Breach of legal or regulatory code**

Description: There is a potential financial and reputational risk resulting from a breach of local or international laws, particularly in respect of behavior relating to bribery and corruption.

Mitigation: There should be well-established policies and procedures in place to address this risk, including a Code of Business Conduct which all employees are required to confirm that they have read. Oilfield service companies are increasingly adopting a risk-based approach to due diligence and risk assessment, and are increasing the level of due diligence undertaken in respect of new contracts in potentially high risk areas or countries, including commissioning independent investigations where this is deemed appropriate. Policy on the use of agents should be regularly reviewed and refreshed.

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## The business outlook for oilfield service companies is significantly affected by the level of energy industry spending on exploration of oil and natural gas reserves

### **Conclusion**

The link between E&P companies and oilfield service companies gives rise to a significant number of shared industry and business risk drivers. Oilfield service companies provide a whole spectrum of support services to the oil and gas sector which include contract drilling, platform construction, operating numerous types of offshore drilling rigs, seismic acquisition and analysis, and other specialty services including marine engineering and transportation.

The business outlook for oilfield service companies is significantly affected by the level of energy industry spending on exploration of oil and natural gas reserves. A key indicator for this spending is rig count, since when drilling and work over rigs are active, many of the products and services provided by the oilfield services industry are required. Exploration and spending by oil and gas companies is in turn influenced strongly by expectations of supply and demand for oil and gas products and by current and expected prices for both oil and gas.

Whilst oilfield service companies, whether independent or part of a larger entity, may be at least as good at managing risk as their clients, the increasing degree of interdependence between the two necessitates a heightened level of oilfield risk awareness.

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