



Fit for \$50 oil in Africa

Will the boom go bust?



February 2015



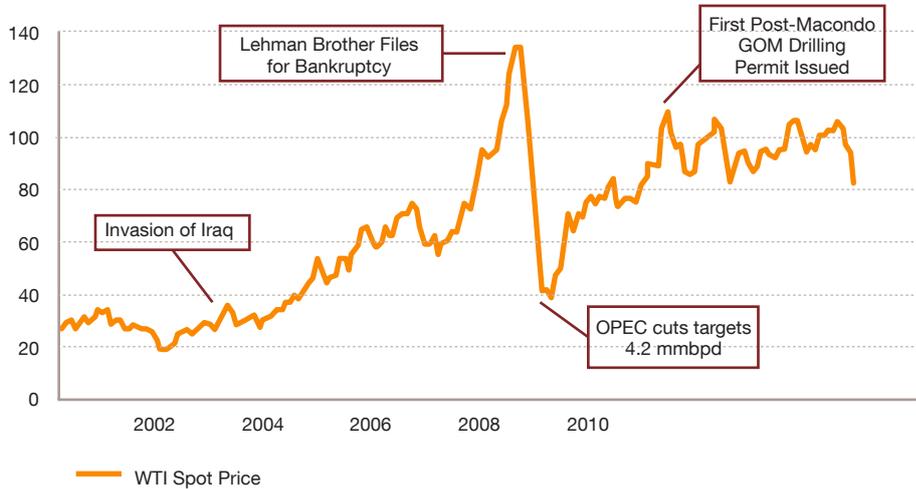
Africa has seen enormous successes in the exploration for hydrocarbons over the last decade, which has seen the entry of new country players in East Africa joining the ranks of their West African neighbours. In 2013 alone, six of the top 10 global discoveries by size were made in Africa – including some of the largest reserves discovered in the last decade in East Africa!

This sounds like a true success story for low-income African countries, some of which have been highly dependent on agricultural exports up to now. The drastic drop in the global oil price means that we may need to re-think the oil boom on the African continent.

Oil price volatility is part of the industry

Oil price volatility results from complex interactions between supply and demand and reacts significantly to world and economic events.

Oil prices since 2000



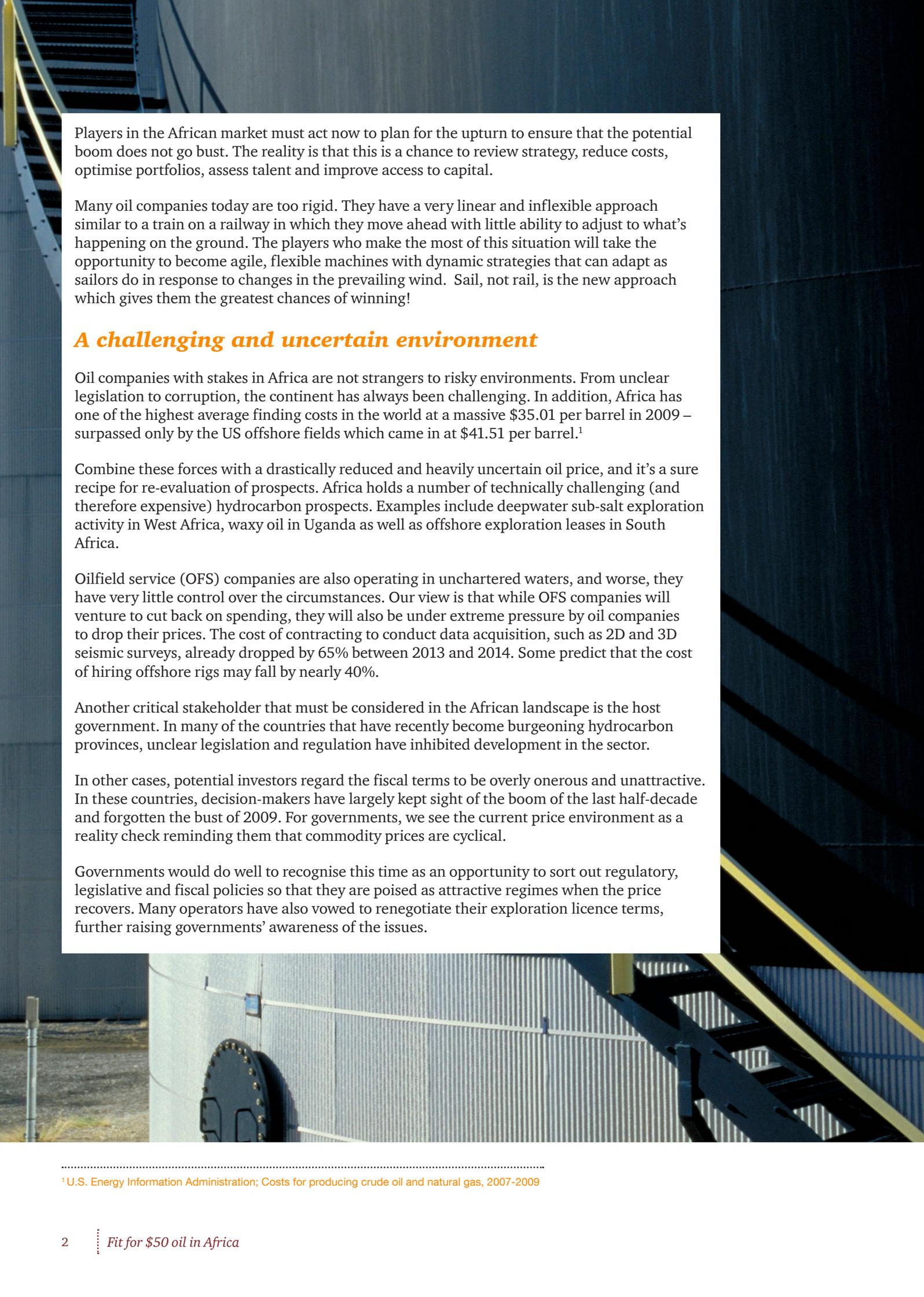
Source: US Energy Information Administration

For countries in West Africa, which are already highly dependent on oil exports, it means potential austerity measures and budget reviews, but what is the potential impact that a \$50 (or less) per barrel oil price could have on fledging new oil producers like those in East Africa?

Oil & gas explorers will be scrutinising (and likely reducing) their budgets and deciding where to allocate their limited capital spend given the new price environment. This may include rationalisation of portfolios in addition to general cost-cutting on discretionary capex.

London-based Tullow Oil, for example, has reduced its global 2015 exploration budget to \$200 million, an 80% reduction in what it spent in 2014. We also expect an uptake in M&A activity as players with strong balance sheets secure resources from those with less liquidity, many of which could be smaller players with a strong presence on the continent. In addition to gobbling up the weak, other assets may be put up for sale as strategies are revised and implemented.

Companies across the globe that until recently enjoyed an economic environment in which being a 'jack-of-all-trades' was a feasible proposition will now have to focus their efforts to weather not only this storm but also those associated with volatility in other commodity prices.



Players in the African market must act now to plan for the upturn to ensure that the potential boom does not go bust. The reality is that this is a chance to review strategy, reduce costs, optimise portfolios, assess talent and improve access to capital.

Many oil companies today are too rigid. They have a very linear and inflexible approach similar to a train on a railway in which they move ahead with little ability to adjust to what's happening on the ground. The players who make the most of this situation will take the opportunity to become agile, flexible machines with dynamic strategies that can adapt as sailors do in response to changes in the prevailing wind. Sail, not rail, is the new approach which gives them the greatest chances of winning!

A challenging and uncertain environment

Oil companies with stakes in Africa are not strangers to risky environments. From unclear legislation to corruption, the continent has always been challenging. In addition, Africa has one of the highest average finding costs in the world at a massive \$35.01 per barrel in 2009 – surpassed only by the US offshore fields which came in at \$41.51 per barrel.¹

Combine these forces with a drastically reduced and heavily uncertain oil price, and it's a sure recipe for re-evaluation of prospects. Africa holds a number of technically challenging (and therefore expensive) hydrocarbon prospects. Examples include deepwater sub-salt exploration activity in West Africa, waxy oil in Uganda as well as offshore exploration leases in South Africa.

Oilfield service (OFS) companies are also operating in uncharted waters, and worse, they have very little control over the circumstances. Our view is that while OFS companies will venture to cut back on spending, they will also be under extreme pressure by oil companies to drop their prices. The cost of contracting to conduct data acquisition, such as 2D and 3D seismic surveys, already dropped by 65% between 2013 and 2014. Some predict that the cost of hiring offshore rigs may fall by nearly 40%.

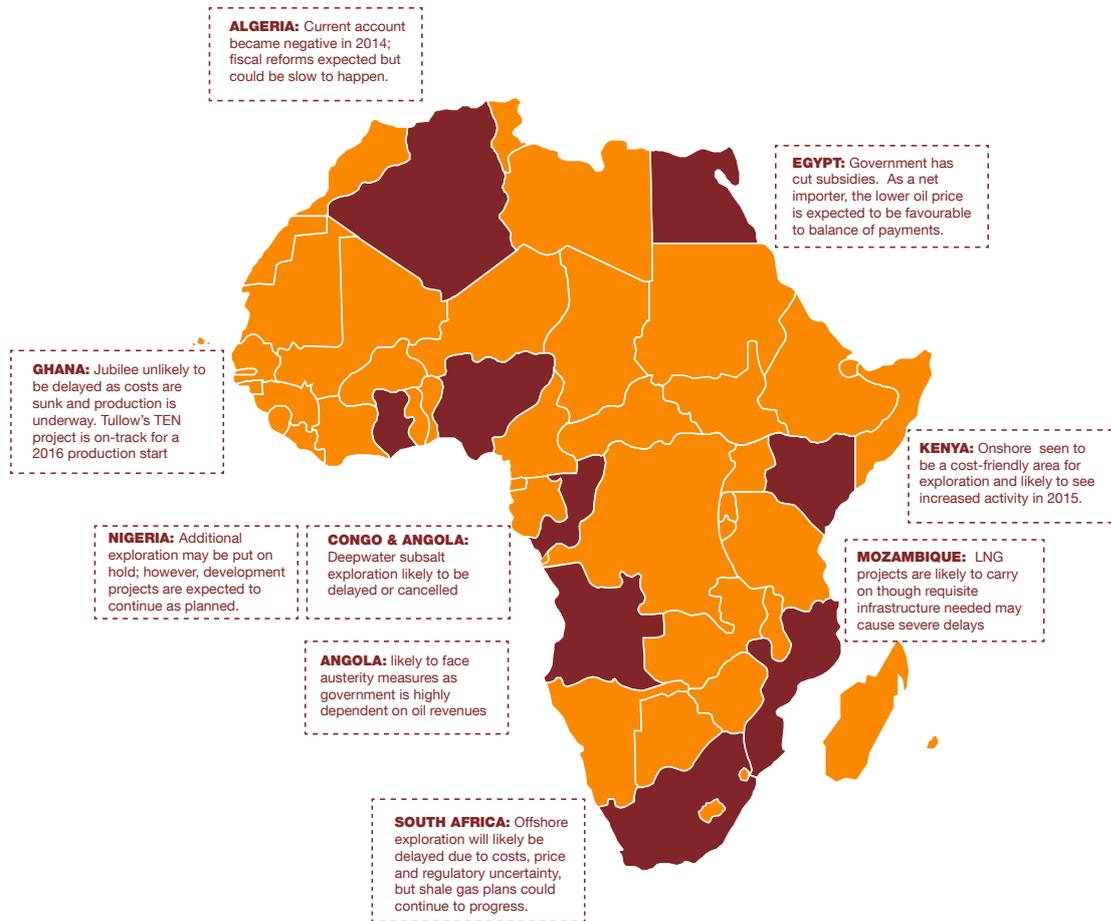
Another critical stakeholder that must be considered in the African landscape is the host government. In many of the countries that have recently become burgeoning hydrocarbon provinces, unclear legislation and regulation have inhibited development in the sector.

In other cases, potential investors regard the fiscal terms to be overly onerous and unattractive. In these countries, decision-makers have largely kept sight of the boom of the last half-decade and forgotten the bust of 2009. For governments, we see the current price environment as a reality check reminding them that commodity prices are cyclical.

Governments would do well to recognise this time as an opportunity to sort out regulatory, legislative and fiscal policies so that they are poised as attractive regimes when the price recovers. Many operators have also vowed to renegotiate their exploration licence terms, further raising governments' awareness of the issues.

¹ U.S. Energy Information Administration; Costs for producing crude oil and natural gas, 2007-2009

Potential impact on Africa of a drastically reduced oil price



In this challenging and uncertain environment, the question that needs to be answered is ‘Who is facing the greatest risks?’ Historically, oil & gas production costs in Africa have been on par with the world average, at \$10.31 per barrel.² This suggests that the areas impacted most in Africa will be similar to those in the rest of the world, with a few specific noteworthy caveats. Overall, global production growth is expected to slow but not reverse. Our view is that the players in the following categories on the continent are likely to be most at risk:

- Frontier areas;
- Major gas projects;
- Host governments; and
- OFS companies

Frontier areas around the world will potentially suffer from delayed development in the near term. These include technically difficult projects that require more spend than conventional production, such as deepwater, sub-salt, shale gas and enhanced oil recovery ventures.

² U.S. Energy Information Administration; Costs for producing crude oil and natural gas, 2007-2009



Countries that may see frontier project delays include offshore South Africa, sub-salt Congo and Angola, offshore Tanzania and shale gas in South Africa. Shale gas, in particular, could move forward if the gas price were not 100% linked to oil.

In addition, areas where limited infrastructure is currently in place are also likely to suffer. This is because external investment is needed to develop the requisite infrastructure – investment that will be difficult to procure to produce a commodity that is currently losing in value. In these areas, development of existing discoveries may end up on ice unless there is a domestic need for the resource.

The good news is that large international oil & gas players will likely look more to the future (and beyond current prices) when deciding whether or not to continue proposed drilling programmes due to the long-term nature of these prospects.

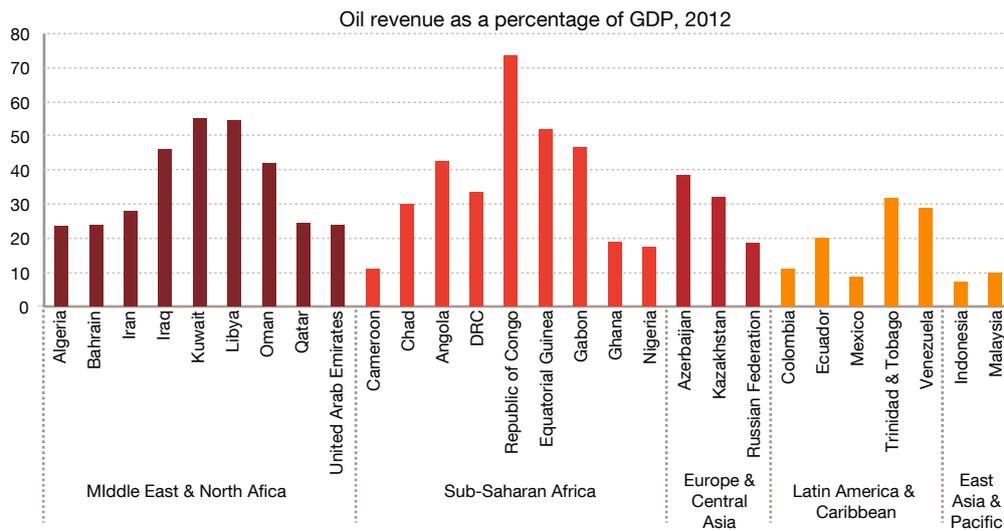
Major African gas projects will also be under increased scrutiny, as oil-linked LNG prices have also dropped significantly. We don't envision that the major LNG projects in Mozambique and Tanzania will be cancelled outright, but costs are a major concern for investors.

Total capex needed to build a 2-train LNG project in Mozambique is a massive \$2.14 million per bcf of net gas volume. That's a total investment of USD\$26.1 billion.³ With such high stakes, it's no wonder that investors may wait for some rebound in the oil/gas price. Another option would be to modify contract prices for LNG to de-link them from oil, but we don't see this as probable in the short to medium term, though the direct indexation that we see today may be modified.

Host governments in Africa could also see a major impact on their bottom lines caused by the suppressed price environment. Those whose economies are not well diversified, such as the Republic of Congo, Gabon and Angola, will be hardest hit and may have to consider austerity measures and a revision of the government's budget. Oil revenues make up a large portion of the GDP for many African countries and if the current price environment persists, this could result in slowed development.

³ Mozambique LNG: Macroeconomics Study, Standard Bank

Oil revenue as a percentage of GDP, 2012



Source: World Bank

OFS companies will be hit hard globally, but Africa may be an especially vulnerable portion of their portfolios. Overall, there will be extreme pressure on them from upstream operators to reduce costs.

Africa could pose further complication due to difficult logistics and lack of infrastructure to respond quickly to demand. Those who can predict movements in the market ahead of time will perform best in this environment. Overall exploration costs have already decreased significantly due to cost pressures, specifically seismic surveying and drilling. This will likely lead to idle rigs as well as delayed and potentially cancelled projects.

Rigs counts on the continent have already dropped as Baker Hughes has reported a 10% drop since 2013 figures. For those operators obligated to drill by lease terms, service costs will be lower, but OFS company margins will be suffering. Schlumberger came to this realisation early, which is what prompted its announcement of 9 000 lay-offs globally.

What are the opportunities?

Despite bleak prospects, there are still viable opportunities to invest in the industry within Africa – even from an exploration point of view. The greatest opportunity at the moment seems to be within onshore, conventional plays. In contrast to offshore finds, onshore prospects are technically much easier to discover due to well-tested geotechnical approaches.

There are still risks, but onshore exploration is also significantly cheaper. Tullow Oil has certainly taken note of this opportunity as it has announced that it plans to drill six basin openers in onshore Kenya during 2015. Four of them are scheduled in the first quarter. That's a large portion of its \$200 million exploration budget. Kenya, in particular, is also seen to be a relatively stable and fast-growing economy, with its proximity to the markets of India and China being an added benefit.

Aside from exploration, some players are moving ahead with development programmes, albeit with commitments not to expand exploration drilling. Where production is already ongoing, these plays are viable at almost any oil price. This is because most of the costs are already sunk.

We also see that there could be significant potential for firms that are strong in research & development. Schlumberger usually sinks \$1 billion annually into R&D. This investment could pay off if efforts are made to reduce the cost of drilling and production in a low oil price scenario.

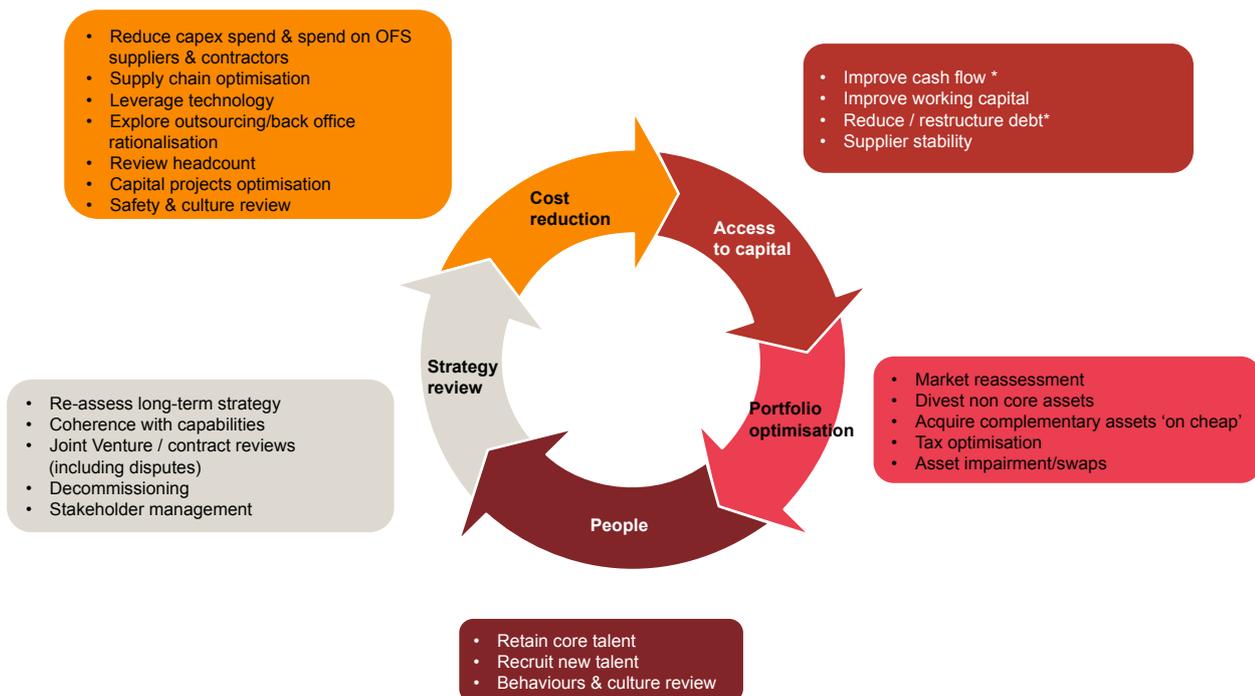
Lastly, there is a big opportunity for new players with strong balance sheets to enter the African market, potentially at a low cost. For those who are 'Fit for \$50,' this poses a potentially once-in-a-generation chance to pick up valuable assets at a bargain price.

How to become more fit for \$50

The key to surviving the ups and downs of the cyclical oil & gas market is to learn how to adapt quickly – be more agile! A number of issues must, therefore, be addressed. This can be done by starting with an organisational stress test.

The PwC Stress Test is a framework for developing relevant indicators to determine the level of 'stress', or exposure and sensitivity of a company to weak hydrocarbon pricing environments. It includes strategic, financial, operational and commercial elements. Drawing on the results of the stress test, actions that could be taken include cost reduction, portfolio optimisation, strategy review, improving access to capital and people management. More detail on these potential actions are outlined in the diagram below.

Issues facing oil & gas companies as a result of falling oil prices



Note: *Includes tax elements
Source: Strategy& research

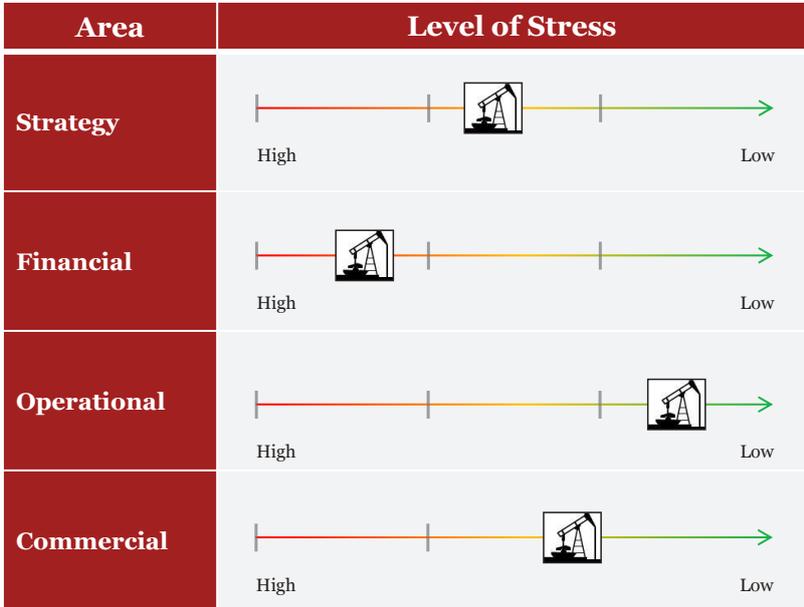
In situations of low commodity prices, many companies respond with knee-jerk cost reduction programmes. This could be much more effective if they took the time to understand what specific costs are, how they compare to peers and what reductions are truly possible. Cost reduction programmes need to be targeted and realistic.

Health check scorecard

A health check scorecard is a useful tool that companies can utilise to determine how to optimise their portfolios in a new price environment. As their margins erode, companies must move from a growth strategy to a flexible position that will support the return to a growth strategy or enable them to endure a downturn.

Companies need visibility into their assets across each element of the stress test to understand how to optimise their portfolio in a new price regime.

Health check scorecard



Current level of stress

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