Investing through the cycle: challenges and opportunities

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Houston
CERA Week
10 February 2009

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Jeroen was born in the Netherlands, and is married with three daughters. He has two degrees – one in mechanical engineering from Delft University and another in economics from Rotterdam University.

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This text forms the basis of a speech delivered by Jeroen van der Veer at CERA Week, Houston, Texas, 10 February 2009. It may differ from the spoken word.

In this speech, Jeroen discusses why the oil and gas industry should continue to invest "through the cycle", despite the immediate challenges posed by the global economic recession. This recession, bad as it is, is a temporary phenomenon, whereas a growing world population and rising energy demand is the structural trend for the first half of this century. And without adequate investment in future supplies of oil, gas and renewables, the world could be faced with a severe supply crunch in the next decade. To help prevent such a supply crunch, governments should promote continued investment by putting in place the right incentives in three areas: taxes and permitting, CO_2 pricing, and access to resources.

Introduction

These are tough times that require tough choices. And for Shell like any other company, it's all hands on deck and overtime on the bridge.

But the current economic recession is a temporary situation. The longer-term trend is still one of growing energy needs.

That's why the oil & gas industry needs to invest through the cycle.

I'll discuss:

- the long-term energy trend,
- the potential impact of the economic recession, and
- how governments can help to soften that impact.

3 Hard Truths

First, the long term: As soon as economic growth resumes, the demand for energy will pick up, and pick up fast. That's what we at Shell refer to as the first hard truth for the period up to 2050.

The second hard truth is that even if we produce energy from all possible sources, it will be difficult to supply these growing energy needs. The third hard truth is that higher energy use will translate into higher CO_2 emissions.

It's not difficult to see why these hard truths remain valid. In the first half of this century, around 3 billion people will be added to the world's population, at a rate of 75 million people each year – equivalent to the entire population of Turkey. And all those people will want to have electricity . . . and many of them drive a car.

So, for the longer term, we don't expect a "demand surprise", because the people will be there and they will ask for energy. Also, oil and gas will continue to be the world's main "energy providers".

It will take decades before other energy forms rank better on the three As of Affordability, Acceptability and Availability.

It will be a tough challenge to supply the world's growing energy needs with oil. This challenge is made more urgent by the rapid decline rates of existing fields.

To avoid making a future supply crunch even more severe, the industry should continue to invest.

But that will not be easy, in light of the economic recession.

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Impact of the economic crisis

The recession has had three immediate effects on our industry:

- the impact on global energy demand,
- a drop in the oil price from a peak of 140 dollars in July last year to below 40 dollars – less than a third - in December,
- and greater volatility in currency exchange rates.

If the recession were to continue for some time, the impact on our industry could be considerable. For instance:

A sustained period of very low oil prices could bring huge cuts in investment. This would amplify the cyclicality of our industry and harm producers and consumers alike.

Some large-scale investments in the upstream are already being delayed, as is the case with Shell's second expansion of

the Athabasca oil sands project in Canada.

In the longer term, oil sands continue to be good projects because they guarantee a steady level of production for dozens of years. I'm sure Shell will continue to expand there, but not right now – we'll wait until we can build new projects more cheaply.

A sustained recession would also slow down investments in CO_2 solutions. If you have a low oil price and a low CO_2 price in a credit-constrained market, projects to capture and store CO_2 would be delayed or cancelled.

And the same would happen to wind farms and other renewables projects.

In the downstream, the refining business would become an even rougher environment than it already is. This would impact employment. And it would become more difficult in future to attract good people if they believe it's not a stable industry. In this sector, I think Shell is better protected than many other players by our large refineries in key markets, and by its strong brand in the retail sector.

To invest or not to invest

To invest or not to invest . . . that's the question.

Already, the oil and gas industry is probably the most capital-intensive industry in the world. And Shell was the largest private investor over the past years.

And it is becoming even more capital-intensive as the world's energy needs increase and supplies of "easy oil" become less abundant.

We need large, long-life, assets that can reliably deliver big supplies through different economic cycles.

So Shell has made such projects a priority. But these giant projects take a long time and a lot of money to build.

Shell is maintaining a careful balance in its investment portfolio. For instance, here in North America, we're investing in onshore, unconventional, gas projects that allow us to dial up and dial down the number of drilling rigs quickly, and hence the cost of activity. This allows us to react rapidly to a changing market environment. And the added advantage is that here in the US the infrastructure and capacity already exists, so you can produce the gas very quickly.

These are tough times for our industry. But we've seen them before. Through much of the 1980s and 1990s the oil price hovered around 20 dollars a barrel, dropping to below 10 dollars in 1999.

In both the late 1980s and 1990s prices dropped below the marginal costs for large new supply projects outside OPEC, and new investments became difficult to justify.

You'll remember in 1999 *the Economist* warning that price might even drop to 5 dollars a barrel.

Instead, demand and price began to recover, as a result of economic growth in China and other developing markets.

The lesson we learned is that demand responds quickly to economic conditions, but that demand is only one half of the story. The other half is supply. And supply moves much more slowly.

In today's market, supply investments are under additional pressure because of the credit crunch.

This situation is further amplified by the cost-explosion of the past few years. The oil price may be still roughly double the "about $20" of the 1980s/90s, but the amount the upstream industry is spending each year has risen five-fold, from $80 billion in 1999, to over $400 billion in 2008. Good intentions notwithstanding, this makes it very difficult for the industry to afford growth from a return on capital perspective.

The up-and-down oil price makes it difficult to plan for the future. It damages the sector and harms the interests of producer and consumer nations alike.

So what we're looking for is a happy medium between the two extremes of a very low oil price environment and a very high price environment that causes the sector to overheat.

We don't yet feel the effect of slower

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investment in the market today – because the projects for which a final investment decision (FID) was taken earlier will come on line within the next couple of years.

But we might begin to feel a significant impact in 3-4 years time. By then, an industry-wide reduction in investment would become the reality of a reduction in new productive capacity.

Shell as a large investor

At Shell, we're determined not to repeat the start-stop approach to investment of the past.

Instead, we aim to reap the benefits of sustained investment when the global economy recovers.

Start-stop policies also damage your entire critical mass of know-how, expertise and employee motivation. And even for a capital-intensive company like Shell, people matter most. So we want to keep as many good people as possible.

In 2009, Shell will remain a relatively large investor, with a strong focus on cost, and making sure we're not way out of step with our competitors.

And we will continue to invest in Research and Development (R&D). We believe that a strong, long-term technology position offers some protection from short-term cycles.

Looking back, there's some evidence to suggest that a lower oil price can even help technology development.

In a time of high prices, a key driver for oil and gas companies is speed. In balancing development cost and schedule, schedule usually wins.

But in a time of *lower* prices, cost becomes a more important factor – and that tends to make people more inventive.

A good example is our unmanned offshore monotowers, which Shell began to develop in a time of low oil prices in the late 1990s. These are small offshore platforms that are powered by wind and solar power and need very little maintenance – a concept that made it economical to develop small gas fields in the North Sea.

How to respond?

So much for the economics – what about the politics? What can governments and regulators do to help secure energy future supplies?

I think government efforts could make a real difference in two areas:

- Taxes and permitting
- CO_2 policies and pricing
- Access to resources

First, on taxes. We've been talking about the oil price. But royalties and other taxes and levies also have huge impact on our returns on investment.

Taxes are much easier to control for governments than the oil price or capital costs. So they are a very important instrument for governments to mitigate the up-and-down oil price and the volatility of the energy sector.

We need tax and royalty systems that encourage industry to keep up investment at low oil prices. These tax regimes must be stable and predictable. So they should not suddenly become more punitive when the oil price goes up again. If we're asked to invest at low oil prices, we need to have confidence that companies keep will receive a fair share of the good fortune at higher price.

Every barrel we produce today will be replaced by a barrel that requires more know-how and money to produce. By raising taxes, governments remove money that could otherwise be re-invested in the projects that will deliver future supplies.

Permitting is an important element of cost too. For big projects, permitting easily takes 10 years or more. And slow permitting equals longer lead-times equals higher costs.

Relatively straightforward permitting, in combination with a favourable tax regime for renewables projects, explains why the USA is the focus of Shell's wind business.

A second factor is the price of CO_2. Shell favours a hard, global, CO_2 price as the fastest reduction path for CO_2 emissions. A hard CO_2 price would boost efforts to capture and store CO_2 and help to make renewables projects more competitive. In other words, a

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hard CO_2 price promotes investment and reduces the cyclicality of the industry.

Cap and trade

And Shell favours cap-and-trade systems as the best way to determine the price of CO_2. Why is that?

In cap-and-trade, the emphasis lies on the cap. The cap must be met. So you have a certifiable environmental outcome.

The trade provides the commercial incentive for the lowest-cost reduction project to be implemented.

You will remember that cap-and-trade is an American concept. It has worked well in the USA in reducing sulphur dioxide emissions.

Of course, taxes can also play a role. For instance, higher fuel taxes largely explain why Europe's vehicle fleet is more energy-efficient than its American counterpart.

Access to resources

A third area of government involvement is access to oil and gas resources.

The United States is a good example. The new Administration has made early statements of support for expanded domestic oil and gas production. I hope that support also applies to Alaska.

Alaska's outer continental shelf contains the most promising undeveloped hydrocarbon resources in the USA. These resources could significantly reduce US dependence on oil imports.

In opening up new frontiers, our industry must protect the environment and work closely with local communities and other stakeholders; that goes without saying. But I think we have proven that we can achieve that balance if given the opportunity. I hope and trust that remaining legal issues will be resolved, so that we can help to make these large resources available, create thousands of jobs and generate billions in new revenues for the state of Alaska and local communities, in an environmentally and socially responsible way.

Conclusion

Let's summarise: Energy demand will pick up again. The real uncertainty concerns future supplies.

To invest or not to invest . . . is the urgent question our industry faces.

I believe that continued investment – within reason - is in the best interest of our industry, and in the best interest of the world as a whole.

A considerable part of that "within reason" depends on government policies. We need consistent tax regimes, faster permitting and a hard CO_2 price to be able to keep up investments through the current cycle.

The global economy will rebound and so will the demand for energy.

The challenge is to do what is necessary to avoid a severe supply crunch of hydrocarbons once the economy picks up again.

Thank you

"Energy demand will pick up again. The real uncertainty concerns future supplies."

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