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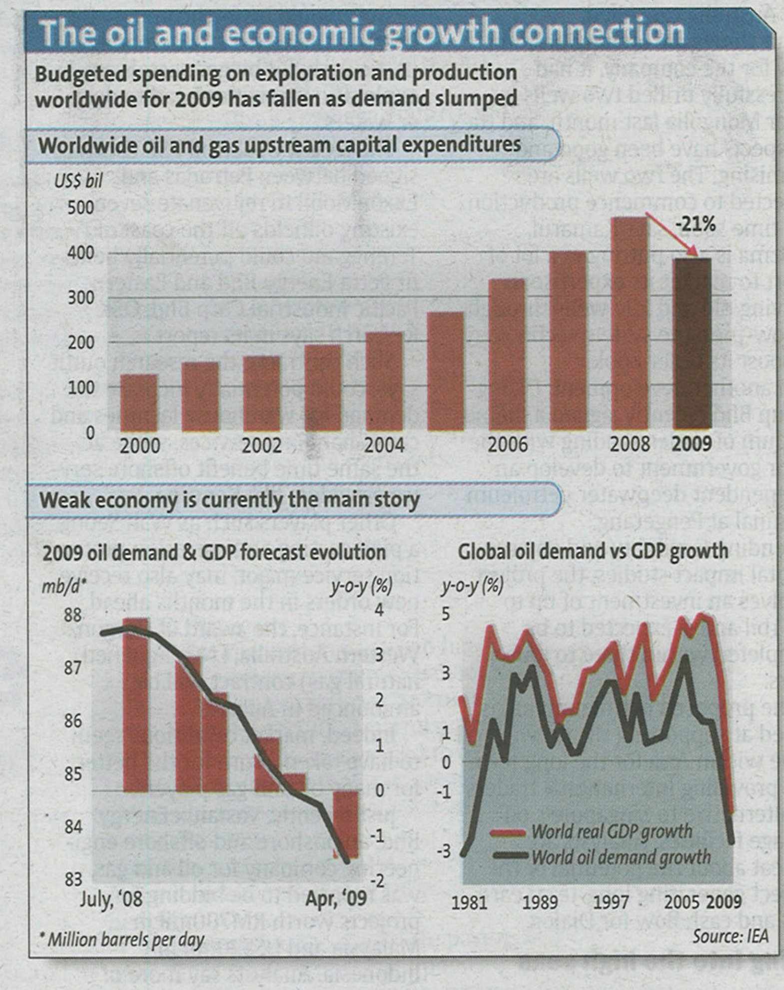

Impact on local players

The cost of exploration and extraction has jumped as readily extractable oil becomes harder to find and the energy companies start to look for oil in deeper waters, thus requiring costlier technology.

And when oil prices were soaring, obtaining oil from unconventional sources such as tar sands, oil shale and heavier crude grades turned viable, particularly in politically stable countries. In tandem with the investments in technology, the cost of infrastructure has also gone up due to the rise in the price of building materials such as steel, boosted in part again by the demand from China, India and other emerging countries.

These costs may swell again. For one thing, steel prices, which bottomed in the fourth quarter of 2008 due to the global downturn, has since rebounded. "It rose again after the global economy began to stabilise," says AmResearch Sdn Bhd analyst Mak Hoy Ken in a phone interview. In his June 9 report, he says billet import prices from South-East Asia has surged to the US$420 to US$430 per tonne levels, rising close to 20% in April alone.

In his special address at the 14th

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An integrated set of solutions gives a framework for action

HUGH THOMPSON

We will continue to explore and develop new resources

HASSAN MARICAN

The recession points to new price hikes and further volatility

JEROEN VAN DER VEER

Downturn crimps industry investments

GIVEN that the demand for energy can only rise and that crude oil will still make up the largest portion of the energy mix of the future, governments and energy companies will have their work cut out for them in satisfying the huge appetite for fuel and power amid growing concerns over sustainability issues.

However, the global economic recession has slowed investments in the oil and gas industry, with double-digit drops in percentage terms in the upstream conventional fuels and renewable energy segments compared to 2008, according to the International Energy Agency (IEA).

IEA executive director Nobuo Tanaka says the economic and financial crisis has put investments in the industry at risk. "Budgeted spending on exploration and production worldwide for 2009 currently totals US$375bil, down 21% or US$100bil from last year," he says.

Tanaka points out that between now and 2013, significant liquefaction capacity will start to operate, but more investments are needed this year and next for projects to start in 2015. He says the future demand trend calls for energy supply investment of US$26.3 trillion up to 2030 or over US$1 trillion a year.

"The economic and financial crises has sharply reduced investments all the way down the energy supply chain from production to end use for both conventional energy sources and renewables," he adds.

Royal Dutch Shell plc's outgoing chief executive Jeroen van der Veer says the recession has made it even more difficult to keep up investments in future supplies as well as cleaner-burning fuels. He says this points to new price hikes and volatility further down the road.

In a recent media conference, Petronas president and chief executive officer Tan Sri Hassan Marican said that to moderate the volatility inherent in the industry cycle, the clear imperative was to continue to develop oil and gas fields without excessive disruption due to market conditions.

"As far as we're concerned, we'll continue to explore and develop new resources," he told reporters.

One recent investment was the signing of a production sharing agreement worth US$2.1bil between Petronas and ExxonMobil to further develop seven mature oil fields off the east coast of Peninsular Malaysia.

Hassan said the national oil company was maintaining its spending so as to sustain resources for the future.

He added that there were many initiatives being carried out to maintain production levels, which currently stood at 550,000 bpd or 650,000 bpd including condensates.

"The deepwater fields off Sabah will be brought into production from 2012 onwards while we've ongoing cooperation with other national oil companies," Hassan said.

The US Energy Information Administration says in its latest report that almost 75% of the expected increase in global energy demand through 2030 will be from developing countries, particularly China, India, Russia and Brazil.

It says renewable energy, like wind and solar power, will be the fastest growing energy source, making up 11% of global energy supplies.

In the IEA's World Energy Outlook 2008 reference scenario, which assumes no new government policies, world primary energy demand is expected to grow 1.6% per year on average between 2006 and 2030 – an increase of 45%.

Demand for oil is expected to rise from 85 million barrels per day (bpd) now to 106 million bpd in 2030 or 10 million bpd less than projected last year, while demand for coal will rise more than any other fuel in absolute terms, accounting for over a third of the increase in energy use.

Renewable energy, according to the agency, will grow rapidly, overtaking gas to become the second largest source of electricity after 2010.

China and India will account for over half the incremental energy demand to 2030, while the Middle East will emerge as another major demand centre.

So the industry and governments will have to think of ways to sustain production as well as reduce reliance on fossil fuels, and this will all happen in the face of declining oilfields, geopolitical instability and climate change.

They will have to invest more in technology and infrastructure to meet the energy needs of the future.

Despite calls for more emphasis on renewable energy and less carbon dioxide emissions, most experts agree that while the industry is not against renewable energy, it will still make up only a small, albeit more prominent, part of the energy mix of the future.

Hugh Thompson, chairman of the ExxonMobil subsidiaries in Malaysia, says to meet growing demand through 2030 and beyond, "an integrated set of solutions will be required in three areas – expanding all commercially viable energy sources to enhance the availability of reliable and affordable energy; accelerating gains in energy efficiency, which conserve supplies, reducing the growth rate of greenhouse gas emissions and lowering energy costs; and lastly, developing and deploying technology to help mitigate the growth of emissions associated with energy use."

He says this integrated set of solution provides the framework for the company's actions and underpins its commitment to the world's energy future.

Energy Intelligence Research managing director Dr David Knapp says making oil and gas "greener" needs to be part of the solution.

He adds that the biggest challenge that oil producers face, especially in the OECD countries, is the depletion of mature reservoir and the environmental constraints on the development of new reserves that have large carbon footprints.

"Meeting environmental requirements on limiting carbon dioxide and other air emissions, water-use levels and discharge will undoubtedly raise costs and may make some previously economic projects fail even at higher prices," Knapp says.