

Short communication

Is cheap oil a poisoned chalice?

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The collapse of oil prices by 76% from July 2008 to January 2009 has brought apparent economic relief to both many developed and developing countries around the world. However, this precipitous collapse in price has stalled investment in the oil industry – many maintenance or development projects have been shelved or cancelled completely. So the decline in oil supplies will be even faster than we had originally anticipated. As future demand for oil picks up again from renewed economic development, the prices of crude oil are expected to soar to new record highs.

Key words: Oil price, oil supply, oil demand, economic development, Olduvai theory, peak oil.

INTRODUCTION

Oil price in July 2008 reached a staggering \$147 a barrel, having doubled in price over the previous 12 months. Who would have thought, that within half a year, a dramatic oil-price freefall would bring oil to a 5- year low of \$35 a barrel in January 2009 – a price drop of 76%.

Low oil prices may be a poisoned chalice, leading to great danger in the future. Stalled development in the oil sector and therefore imminent declining crude production at an even fast rate, could cause new price hikes, due to increased scarcity, when world economic growth revives.

Even though many have sighed in relief, experts are heralding new dramatic spikes in oil price. Oil prices might proceed erratically with huge ranges in peaks and troughs, but there is across-the-board consensus that the long-term price trend is up, way up.

Oil: Scarce and expensive

As predicted by the Peak Oil theory, peak crude oil production would occur around now, and then declining crude production rates would set in, due to dwindling underground supplies, making it much harder and more expensive to extract the oil. Eventually, the exhaustion point of extractable oil will be reached, and crude oil production will be virtually zero (Energy Bulletin, 2009).

In mid 2008 when oil reached \$147 a barrel, there was worldwide great interest in Peak Oil. Industrial society begins to grind to a halt with oil at that price. Agriculture, production industry, transport and even services begin to founder as society and its peoples begin to unwind economically, unable to meet the bill for massive price increases in everything dependent on energy, and that is about everything when we begin to think about it.

As Richard Duncan's Olduvai Theory points out, if we are short on oil we will be short on other energy resources; we will not have the heavy industry to mine them, or the oil-based transport fuel for the carriage of energy resources (e.g. coal, gas and uranium ore), in ships, trucks and road vehicles.

Actually, due to the entrance of oil scarcity and its high price, associated with the early stages of Peak Oil, world economic development has significantly faltered, the worst in decades, as nations and whole continents go into recession – even depression. On the seemingly positive side, many see the subsequent collapse in oil prices to \$35 a barrel – a 76% decrease – as a welcome providential gift.

However, both peak price and its subsequent price trough are not good for the world at all. The world economy had a hard landing, and the price of oil went into freefall, and we rejoice for the arrival of the cheap elixir for the ailing economy.

But, we need to consider, and at length. Expensive oil probably facilitated an early economic decline of world economies, and cheap oil it appears is just what we need, but in fact not so. Cheap oil does not bode well, at all, for the immediate future.

The inclusive world average cost for crude oil production is probably around \$60 a barrel. Non-conventional oils (for example, heavy crude, offshore oil and biofuels) make up about 12% of total world oil consumption of around 85 million barrels a day. Many non-conventional oils are very expensive and probably required a market price of around \$100 a barrel. Any prices significantly below this mean that the oil extraction industry is not overall running at a viable level, with any attractive profits.

Table 1. World conventional oil production.

Year	Production (mbpd)
2005	73.74
2006	73.46
2007	73.02
2008 Jan-Sept	73.96

Source: EIA, 2008a.

Table 2. World all oils supply and demand (mbpd).

	2004	2005	2006	2007	2008
Supply	83.11	84.57	84.54	84.41	85.46
Demand	82.41	84.00	84.98	85.90	85.44

Source: EIA, 2009a, 2009b.

At \$35 per barrel (January 2009) many oil exporting nations are now running into deficits. Oil exploration, development and maintenance projects are either completely scrapped or put on hold. In addition, society is quickly forgetting about the oil crisis and goes back to higher consumption, in a life style that is excessively energy hungry. And we are hopeful for prompt economic revival.

Low oil prices also present a major stumbling block for the development of new generation energy systems and technologies which are typically more expensive than conventional crude oil has traditionally been. Hence, a stalling, or complete cancellation, of many alternative energy projects.

World supply and demand

Table 1 shows that world conventional oil production, in million barrels per day (mbpd) has almost definitely reached a peak plateau in 2005 and is set with pent-up forces to eventually move into terminal decline – there just isn't sufficient conventional oil available. World production and demand of all oils present an interesting scenario as we see demand beginning to outstrip supply in the run up to the 2008 economic decline. Table 2 clearly shows this growing shortfall over the recent couple of years:

We can see from the Table 2 that there was an all oils shortfall for the years of 2006 and 2007. Production briefly, and surely temporarily, increased under pressure from the world on the oil producing nations, as a legacy of the shortfall scenario of 2007. However, we can expect to see future declining petroleum production of about 9.1% annually (EIA, 2008b) and this may be set to increase due to lack of investment in the petroleum sector brought about by the present economic malaise. Actually already even Saudi oil production fell from around 9.26 mbpd, in early 2008, to 8.96 mbpd by the fourth quarter – over a 3% drop in less than a year (EIA, 2009a).

Overall these findings suggest the world will not be able to produce enough oil, to make up for the steep declines

of extractable oil in existing fields, and so will not be able to meet long-term demand. A world petroleum production decline rate of 9.1 is a stunning figure. Considering only regular crude oil, we would need 6.8 million barrels a day of new production capacity to come on line each year just to keep up with the natural decline rate in existing oil-fields, and that is not even considering increasing demand possibilities. That's a new Saudi Arabia every couple of years or so. This is a daunting task even for the optimists (Heinberg, 2008).

Beyond peak oil

Most countries around the world are beyond Peak Oil, and oil reserves in the ground are probably far below the stated levels. Also many oil exporting countries will need much more oil in the immediate future to fuel their own economic development and growing domestic needs, hence they will export much less oil, due to both declining supplies and growing home demand. Some will even stop exporting oil at all.

Also, future oil prices will be far higher as much of the oil reserves left in the ground are non-conventional oil:

- i. Difficult to get out due to geology or its depth.
- ii. Of poor quality.
- iii. Scattered in small fields which require expansive and therefore expensive infrastructures.
- iv. In environmentally hostile polar or marine areas.
- v. In geopolitically unstable and unfriendly regions, like the Persian Gulf.

So much of the remaining reserves are problematic for these several reasons, and the bare cost of supply will probably soon be way beyond \$100 a barrel as oil is harder to extract and technology races ahead in price.

We must not expect that cheap oil will be with us for much longer. And, looming is an even bigger problem, when the world economies do pick up again in renewed economic development, we will have even less oil than we originally thought we would have, because we stopped exploration and development, due to the unattractiveness of low oil market prices.

Conclusion

So where to? We can expect renewed shortages of oil and price hikes way beyond \$150 a barrel very soon, and this will have economic, political and geopolitical implications beyond what many expect. This could forewarn of a new world (dis) order, with the "rise of the rest" (Zakaria, 2008), as we see the world move into post-globalization, post-AngloSaxon fragmentation – what Lewis (2008, 2009), the late Huntington (1996, 1997) and others have called "civilization clash". And each continent-wide civilization superpower may rival other blocs and nations, even militarily, through their jockeying for advantage, to

ensure the secure supply of oil at the best possible price (Leigh, 2008).

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