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Mainstream Dutch analysts foresee oil supply constrained world

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An important Dutch energy institute, the Clingendael International Energy Program (CIEP), recently published a report that confirms most of the conclusions about the oil market reached over the years at the oildrum. That the floor price of oil is now 110 dollars per barrel, that supply will not rise beyond 100-105 million b/d in the coming decades, that there will be an oil supply constraint for most of the next decade, that there are insufficient quantities of alternative fuels available and that thus demand destruction is inevitable. CIEP is especially important because it is endorsed by amongst others BP, Shell Netherlands, Total E&P Netherlands, three Dutch Ministries, Wintershall, Vopak Oil Europe Middle East and several Dutch energy companies. The report in english can be downloaded here (PDF 2.8 megabytes, 108 pages).

> 'This outlook of new scarcity is now exacerbated by the fact that not only available supply will determine what amount of demand can be satisfied; it will also bring about a new allocation of the available oil due to a lack of adequate supply growth compared with demand. **In practice this means that demand rationing will be required in the OECD countries and particularly in the US, in order to accommodate growth in the newly developing countries,** notably China and India. Different fuel prices for end-consumers in the different countries will be the dominant factor behind this 'oil redistribution'. (emphasis mine)

The reports main conclusion about the current oil price:

> Until recently, the oil price was largely underpinned by the marginal cost of the last barrel needed to match demand, with some political and economic conjuncture mark-ups or -downs. This currently puts a structural floor of $110 a barrel under the oil price (WTI). The largest part of the $110 a barrel floor (about 70-75%) is determined by the marginal cost of supply, currently around $80 (building block 1). The remaining $30 a barrel (or 25-30%) is determined by supply-demandfundamentals, a short-term risk premium, and long term scarcity and policy (building blocks 2, 3 and 4).

Prices could very well according to CIEP continue to breach new records because of a shift in pricing mechanisms from marginal costs to government set pricing:

> If prices are indeed heading towards $200 a barrel in 12 months' time, or for that

> matter even to $150 a barrel, other drivers will gain prominence over marginal costs as the main driver. In that case OPEC will have accomplished a long-held wish: oil will then be priced at its real value in the OECD economies, determined in the NYMEX and ICE oil futures markets. Such a new price regime, pricing oil at the "User Value", is brought about by the view that the current supply and demand imbalances are structural and that these imbalances could worsen in the next decade. In such an environment, pricing at the User Value implies that oil prices will no longer follow the rules of commodity pricing (where prices tend to the marginal cost of supply with some conjuncture mark-ups and -downs), but that prices are determined by the end-consumers in a framework set by governments. Pricing at the User Value implies that the oil price will not necessarily invite new supply into the market, since income requirements of producing countries will be easily met through price rather than volume.

On supply and demand CIEP bases itself mainly on the World Energy Outlook 2008 from the International Energy Agency that is due for coming November. It is very likely they have already seen a preview of the report:

> In every likely scenario, oil remains the dominant resource for meeting global demand in the next few decades because there are no real alternative transportation fuels currently available in large enough quantities to replace oil. A new supply/demand outlook of around 100-105 million b/d for 2030, most likely to be published by the International Energy Agency (IEA) in their next edition of the WEO in November (versus 116 million b/d in the WEO 2007), will have far-reaching implications. It basically means that world oil (and liquids) supply can grow at only half the rate in the next 22 years than earlier anticipated (circa 13-18 million b/d versus 29 million b/d).If correct, it implies that the world will have to go through a period of substantial demand destruction – in the order of a half to two thirds of today's oil demand in the US, or up to 100% of the oil projected to be imported by China in 2030.

The 100-105 million b/d for 2030 are explained as follows:

> OPEC has the potential to raise its liquid output towards 50 million b/d, mainly by adding heavy, difficult oil and NGLs. Together with non-OPEC, this is expected to lead to a plateau of around 100 million b/d. For how long the plateau production can be held before decline sets in is a topic of debate. Peak-oilers forecast this to happen quickly after 2015, whereas the more optimistic advisors do not see this happening before 2030. In our view, the latter is (much) more realistic, with the plateau to stretch out until at least 2030, assuming that new fields are developed timely in the major resource holding countries. However, it is a fact that several OPEC countries are now facing serious declines from existing fields as well. Particularly Iran and Venezuela are struggling to maintain production because several of their more mature fields show decline rates of 10- 15% per annum. But here it is noted that most of the challenges they face have their origin in the behavior of their governments rather than in nature.

Given that this might prove to be too optimistic some caveats have been inserted in the supply outlook:

> A possible quickening of underlying oil field decline rates at the time deepwater oil production (circa 10% of global oil supply) goes off plateau in the first half of the next decade could make this pessimistic supply
> outlook even worse.But even with stable observed decline rates, the industry still has to bring twice as much new oil and liquids onto the market in the next 22 years than what they have done over the past 22 years – around 80 million b/d
> if supply and demand were to grow to 116 million b/d by 2030 as per WEO 2007, or 70 million b/d in case supply can't grow much further than recently suggested. Steeper annual depletion rates in the coming decade will imply that more
> new oil will have to be developed to offset diminishing supply from existing fields and to meet projected demand.

Of course there are also some 'optimistic' and to my opinion unrealistic notes about investment that will never take place because of geological reasons (the fields are not there) as well as political tensions:

> Quickly rising oil prices would not be necessary if OPEC and a few other major oil resource holding countries, notably Russia and Mexico, would accept responsibility for balancing the market and take actions accordingly. At the same time, the major oil-consuming countries would have to provide security of demand to the oil producers if they commit to investing in the additional production capacity.The fact is that around 8 to 10 million bbl/day of medium-priced oil is available in these countries in addition to what is currently under development, but this oil cannot or will not be developed and produced for political or institutional reasons or due to demand uncertainty. Should such oil become available, global oil demand could be met for the entire next decade without rapidly increasing oil prices and without the challenge to global economic growth. Oil prices would still (need to) rise, but would do so in a much smoother and more controlled way.

Most surprising to me is the sense of realism at the end of the report about the response to an 'oil supply constrained world':

> What is generally not very well understood is the vast complexity and scale of the oil industry that currently produces 84 million barrels of oil every single day. Given this magnitude, any change, any replacement of oil by an alternative fuel will take a long time before it can make any realistic impact. Whilst not different than in other industries, it often takes decades before a new innovation is sufficiently diffused as to affect productivity, and in the case of oil, to really impact supply and demand, and hence price.

> 'Being unable to force OPEC, Russia and a few other major resource holding countries to change their (national interest driven) policies, the OECD consuming countries have no alternative than to work even harder on conservation and innovation with the objective to achieve a sustained reduction in the rate of demand growth relative to the rate of economic growth, and on developing their most expensive unconventional oil reserves and substitution. The alternative is stagnation; a reduction in the rate of economic growth as supply constraints become binding to overall economic growth.'

> In parallel with the OECD countries accommodating the economic growth of emerging economies, the latter countries have to work away their oil product subsidies without triggering a jump in consumer price inflation, in order to improve energy efficiency and to reduce world oil demand growth. The alternative is that new and old oil consumers end up in a fierce competition for scarce oil supplies at much higher price levels, with the risk of triggering a deep and prolonged recession and possible geopolitical tensions.

There is a lot of additional interesting analysis in the report itself that is well worth reading. For the Dutch this report means another major wake up call, given that the media was all over it today with a front page article in one of the bigger newspapers, several radio-interviews and even an item on the Dutch financial television channel. It is becoming harder for politicians to not notice the message that something needs to be done, not in the future, but now.