Peak Oil

What is it?

Peak Oil is the point in time when the maximum rate of global petroleum production is reached – after which, the rate of production enters its terminal decline.

M. King Hubbert first used the theory in 1956 to predict that US oil production would peak between 1965 and 1970. The American nation ridiculed him, and his report to his oil company was toned down to "within the next few decades." Poor M. King was so pilloried that he was invited on numerous chat shows in the US, just so that he could be held up to ridicule. However, he had the last laugh, when US oil production peaked in 1970; and his model has been used to predict the peak petroleum production of many other countries, since then.

Some facts and figures:

- 95% of global transportation relies on oil.
- 95% of all goods in shops involve the use of oil.
- 95% of all our food products require oil use.
- It is reckoned that global demand will continue to rise, with no idea how this demand will be met.
- The U.S. daily consumption of 20million barrels requires 5 million barrels of this to be imported from the Middle East. The U.S. could remove this need simply by requiring its domestic car industry to increase the fuel efficiency of cars and light trucks by a mere 2.7 miles per gallon.
- Between 1987 and 2001, U.S. average fuel efficiency fell from 26.2 to 24.4 miles per gallon.
- Some other countries are producing cars capable of up to 60 miles per gallon.

The effects of the current shortfall

Since the Second World War, a majority of U.S. presidents have ordered military action of some kind in the Middle East. The foreign policy maze extends from jacking up dubious despotic regimes and bombing others. All dressed up as a drive for democracy.

The experts' opinions

There are 2 camps of thought about the current situation and what the future holds.

The first camp is known as 'late toppers', who believe there are still 2 trillion barrels of extractable oil on the planet, which would keep us going quite comfortably for the next 3 decades. This group includes almost all oil companies, governments and their agencies, financial analysts and business journalists.

Group 2 have a slightly different view and believe that the recoverable oil left, stands at 1 trillion barrels. This group is made up largely of geologists.

The difference in the 2 predictions is massive. The first gives us 30 years to come up with alternatives to oil. The second believes we should have begun this quest a decade ago.

Past oil shocks

The first oil shock occurred in 1973 and was caused by the Arab response to the west's support for Israel in the 7 Day War. It was short lived when OPEC realised that the damage this action caused the western world would damage their own investments. The crisis ended when Saudi Arabia increased production and North Sea Oil came on stream. This cure cannot be repeated by the same combination of events, however, as Saudi Arabia is now pumping at near capacity; and it is extremely unlikely that we shall ever find a new field the size of the North Sea again.

There was a second shock in 1979, when the Shah of Iran was deposed and replaced by an Islamic government hostile to the west. The problem was caused mainly by panic, triggered by the memory of the shock 6 years earlier. Once more Saudi Arabia rode to the rescue with increased output. This, also, would not be possible in today's conditions.

The Current Shock

The shock this time will bring forth a recession – unseen since the massive recession of 1929-1932 – which caused unemployment, poverty and the rise of fascism, which brought about World War ll.

Whilst exploration continues with a new fervour, only 1 drilling in 10 produces any oil; and only 1 in 100 produces a field of any sizeable quantity. The more wells drilled in one area, the smaller the wells become.

Given that the oil companies have massive funds available to spend on the latest technology in the field of exploration, they have a poor record in finding "Giant Fields", i.e. those with over 2 billion barrels of extractable oil. All the major oilfields in the world were discovered over 50 years ago. The last big find occurred in 2000 – the first in 25 years – Kashagan Field in Kazkhstan which has 9-12 billion barrels of poor quality oil.

BP's Statistical Review of World Energy was once regarded almost as a bible when it came to the truth about existing reserves. However, the most recent edition, which includes figures up until 2003, paints quite a rosy picture – quoting a rise in global reserves from 600 billion barrels in 1970 to 1,147 billion barrels today.

The problem is in the smallest of small print, stating that figures have been produced using a "variety of primary official sources, third party data from OPEC Secretariat and a few other places not connected with BP". BP must have

accumulated a massive amount of information on remaining oil reserves, over a long and successful career; yet they now offer second hand information based on very dubious sources.

The best piece of small print comes after this. “The reserves figures shown do not necessarily meet the U.S. Securities and Exchange definitions and guidelines for determining proven reserves by country”. In other words THEY don’t believe the figures they are quoting. This particular publication is held in the highest esteem worldwide by researchers, journalists and students.

It might be a good idea to ask the compilers of these figures a few questions.

The end of the document has still more small print: “BP regrets it is unable to deal with enquiries about the data in the Statistical Review of World Energy”.

In effect, they are saying, “We don’t believe the figures we have published, and we don’t want to talk about it.”

The equivalent document from Shell also admits there are problems in supply; but this statement appears to be almost hidden away in the document, and mentioned only casually, in passing. Shell quietly admits it has a Future Scenarios Department, who have worked out that the answer to the current oil shortage is well within the grasp of current technology; but, in effect, won’t use it because they don’t want to. If any proof were needed for this lack of commitment, Shell’s recent withdrawal from the London Array Scheme, should dispel any doubts. The London Array, if it is ever built, would be the world’s largest offshore wind farm.

Part of the problem lays in believing the figures of individual OPEC countries. They need to produce exactly the right amount of oil. Too much and the price drops. Too little and the price rises, leading to more research into

alternatives. Thus, a quota system – linked to each country's proven reserves – was adopted. Strangely, each country in turn 'realised' it had grossly underestimated its proven reserves – i.e. 50% in the case of Saudi Arabia.

The oil companies are fully aware of what is going on, but are failing to inform governments of the huge problem. There was an attempt, in July 2004, to bring the problem to the attention of the U.K. government by Colin Campbell (founder of the Association for the Study of Peak Oil) and Chris Skrebowski (editor of Petroleum Review). The sparse audience in the Thatcher Room at the House of Commons was attended by just 3 MPs and a handful of researchers.

Whilst global warming is somewhat difficult to prove, there can be few in this world, who have not heard of it. The same cannot be said of the looming oil crisis. 49 of the 65 countries possessing oil have now passed the point of peak oil.

Today, the U.S. is 3/4 of the way through its oil reserves. A frenzy of oil exploration following the 1973 oil crisis discovered almost no new oil. As the U.S. pay very scant attention to fuel efficiency, they are forced to import ever increasing amounts of oil.

What are the solutions?

As most Lifestylers will appreciate, there is no one answer to this problem – but there are a number of different alternatives. Energy conservation is essential, and the government – in the form of the Energy Saving Trust – has started to make inroads into this side of things. In addition, vehicle manufacturers can make a start by increasing the efficiency of their end product. Moreover, new technology in wind power and tidal barrages has produced a viable alternative source of electricity; but this country lags well behind most European countries in this field, and the U.S. has

a long way to go.

Hopefully, the concern about global warming will massively reduce food miles, a major waste of precious energy. A buzz phrase from the 1973 crisis was “self sufficiency”, which envisaged people growing a lot of their own food in their gardens and allotments. Why not? The last war proved that this country could become self sufficient, although conditions have changed since then.

One alternative that is definitely out of the frame is nuclear energy. The dangers, highlighted by the Chernobyl and Three Mile Island (and to a lesser extent the fire at Sellafield), have proven that the nuclear option should be discounted. Moreover, there is only a limited amount of high grade uranium in world.

One alternative that is controversial, but may become necessary, is the switch to coal. New technology has improved the cleanliness of this fossil fuel and it may be essential to use this as a temporary prop, while we get over our addiction to mass energy use.

Local government has, in a patchy way, started to look at the possible solutions (i.e. the creation of Transitional Towns) – the idea being, that alternatives to our oil based economy are being investigated right now. Initially, the only two I knew were Totnes in Devon and Lewes in Sussex; but since last year, several other small towns have joined this scheme – as well as Leeds. These are just small beginnings, like funding allotment societies, and helping out the disadvantaged members of communities by providing advice and free insulation for their homes, to save energy. People are also pressing the government to improve local public transport, and to provide financial help to support local shops and market initiatives. It is hoped that the government will make a much bigger priority of these schemes, and quickly.

This brings me to one of the many reasons I'm hoping our Lifestyle membership increases. In addition to the urgency required in finding solutions to the ticking bomb of worldwide energy shortage – we need to spread the word; so everyone will help wake up sleepy governments, who have buried their collective heads in the sand, while hoping that science will provide the cure for this condition.

Jeff White

> *"Deal With Reality or Reality Will Deal With You".*
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> *– Matt Savinar*

> *"The time to repair the roof is when the sun is shining".*
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> *– John F. Kennedy*

> *"It's not denial. I'm just selective about the reality I accept".*
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> *-Bill Watterson*

> *"The use of solar energy has not been opened up, because the oil industry does not own the sun".*
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> *-Ralph Nader*

> *"A fact is a simple statement that everyone believes. It is innocent, unless found guilty. A hypothesis is a novel suggestion that no one wants to believe. It is guilty, until found effective".*
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> *–Edward Teller*