A PROJECTION OF FUTURE OIL PRICES UP TO 2030

By

Larry C.H. Chow
Director, Hong Kong Energy Studies Centre
Professor of Geography
Hong Kong Baptist University

ABSTRACT

The price of oil, as well as the price of other fuels, has risen tremendously since 2004, soaring from $25/b in mid-2003 to $147/b in July 2008, and subsequently settling down at a lower range. The magnitude of the rise, albeit a little less dramatic than that of the first oil crisis in 1973, is exceptionally steep. Although the impact this time is somewhat more muted than that of the two oil crises in the 1970s, due to the much lower oil and energy intensity of the world's economy, yet practically everybody is affected.

Naturally we are all concerned about the future of fuel prices. Oil has been the price setter of energy since the first oil crisis; hence the future of oil prices is of great significance. This study makes a projection of future oil prices up to 2030, based on past energy and oil data since 1972. It estimates that for most of the time up to 2030, oil will stay within the range of $36 - 90/b (in nominal terms), with $30/b and $120/b as outer limits on either end.

The projection is based on the past behaviour of oil prices, the fundamental factors of demand and supply, the intriguing role played by OPEC and the crucial role played by the oil futures market in affecting prices, in addition to the special characteristics of the liquid fuel that have an important bearing on the big picture of world oil, e.g. its strategic nature and the very uneven distribution of oil on the earth, with close to 60% of proven reserves in the politically unstable Middle East.

Long term data reveal that the price of oil fluctuates violently, yet it is mean reverting, implying that after sharp rises and subsequent severe corrections, it will move back towards the long-term mean level. From 1973 to 2003, for almost 90% of the time, the price has fluctuated within the range of $12 to $30/b, with outer limits of $10/b and $40/b respectively. Allowing for the fact we have moved on to a higher plateau in terms of world oil price ---due to the running out of low cost oil, the rapid rise in demand from emergent economies like China and India, more stringent environmental requirements regarding oil and energy, and concerns about green-house gas emissions associated with global warming etc.---this study estimates that the future price will be a tripling of the old price that prevailed in the preceding 30 years, hence the modal range of $36 to $90/b, with $30/b and $120/b as outer limits.