

BASIC ASPECTS OF OIL PRICE FORMATION

Anna Lapenko

Sumy State University, Sumy, Ukraine

Recent oil (and other commodity) price rises, and continued rapid industrialization in China and India, have raised concerns about longer term energy security. Almost all mainstream energy forecasters predict growing global demand growth, underpinned by developing country growth and continued, albeit much slower, growth in demand in the industrialized economies.

An important concern that global capacity to substantially increase oil production will be increasingly constrained by the size and distribution of the geological resource base. As a result of such succession of events, prices are likely to stay at high levels, and may even rise further if demand continues to grow.

Views about long term prices are vital inputs to many energy investment decisions that have long lead times and a capital stock that turns over only very slowly.

The optimal price oil is the long run marginal cost (LRMC), where the LRMC includes environmental costs in addition to the full cost of doing business. This is a well-established principle of efficient market pricing. At the same time, there is much room for uncertainty in the future dynamics of the world oil prices, concerned with a number of factors relating to both - demand (world economy growth rates), and supply - proposition (oil production).

As an analysis of the situation on the world oil market shows, a number of factors will contribute to maintaining of high level of world oil prices. According to expectations, the growth of world oil demand will be sustainable, despite high oil prices.

History shows that current high oil and other commodity prices should eventually come down as supply and demand respond to high prices. But there will be lags in these responses because of the long lead times usually required to make new energy investments, turn over the capital stock, and even to change users' expectations and behavior.

Numerous studies have provided estimates about the effect of oil price shocks on the global economy. Though consensus on the precise magnitude of the impact is lacking, most of them agree that oil shocks reduce the overall economic growth.

In a market where the balance between supply capacity and demand is tight, and below historical levels, effective mechanisms to significantly reduce the risk of further price volatility are few in the short term. This is mainly because:

- On the demand side, capacity to switch industrial fuels is limited in the short run and, consumers tend to be relatively price insensitive in industrialized countries, but more price sensitive in developing countries. Government efforts to manage demand in the short term through administrative fiat or exhortation, may have a short term impact but have their own costs on consumers and business.
- On the supply side, high prices should eventually lead to increased new investment. While long lead times for new production development mean the short term supply response is limited, governments can help by removing unnecessary barriers to urgent needed investments.
- Strategic stocks held by consuming countries are likely to have a limited role to play because of their relatively small size. They are more likely to be held in reserve or only used, as was the case with the recent release of 29 million barrels of crude oil by the USA and International Energy Agency, to meet perceived specific shortages in the market.
- The role of OPEC and other major oil producers to address price volatility problems is significantly constrained due to the current lack of spare capacity

The threat of climate change, poses issues for the continued growth in use of fossil fuels (coal, oil and gas) – that for more than 200 years have been the most convenient and cost effective fuels for modern economic development – and are likely to continue to have cost advantages (excluding any consideration of possible externalities) in some important uses for a long period to come.

However, even those forecasters who believe that prices will eventually retreat from today's levels, and that global supplies can be developed to meet increased demand at prices below today's, believe that, for the short term, the balance between global demand and supply capacity will continue to be very tight and it likely that prices could remain high or increase. The latest short term forecasts of the Energy Information Administration (EIA) of the US Department of Energy, for example, predicts that prices will remain above 2007 level through 2008.

Oil exporters have been able to generate windfall profits from high oil price levels. However, their trade relations with importers could eventually be harmed as a result of the negative impact on economic growth of high energy prices, although there are few signs of this yet.

In this respect, the attention directed towards the issue of energy security by the international community has been greatly heightened by the increase of oil prices to record levels in nominal terms, although prices are considerably lower than their peaks in the 1970s, over the past 18 months which has contributed to high volatility and rising energy prices overall. Rising and volatile energy prices pose a risk to the world economy and to all countries, but the poorer importing countries are less able to cope with increased prices. Importers generally are also concerned about the meaning of short term price shocks for longer term secure supply of reasonably priced energy.

Recent events in oil and other markets have brought the issue of energy security to the forefront. High and volatile prices raise concerns about short term risks to economic growth and about longer term energy security. Although it will mean different things to different countries, there is a strong common interest in ensuring the world can produce and use energy at reasonable costs and in a sustainable way to ensure the quality of life of the world's peoples.