



## **Robert Mabro looks at oil price swings**

The big oil price swing that occurred in 2007–9 has worried governments from oil-exporting and -importing countries. The main fact is well known. The price of WTI as it arises in the New York futures exchange (NYMEX) increased to an unprecedented height of more than \$140 per barrel in early July 2008, and then collapsed in a free fall to a low of \$32.40 per barrel in December 2008, less than six months later.

Regulators were asked whether their lax approach to the working of the derivatives market was responsible for this destabilising swing. Some US

senators want to revamp the regulatory system. The UK approach is to seek the solution in an enhanced oil producer–consumer dialogue and to seek more transparency rather than new regulations.

Prime Minister Gordon Brown went to Jeddah in search of a joint solution with Saudi Arabia. President Sarkozy and PM Brown published a joint article in the *Wall Street Journal* (8 July 2009) arguing that the problem of oil market volatility must be urgently addressed. Interestingly, they claim that ‘governments can no longer stand idle’. But no concrete measures were specified other than a call for greater transparency and for greater co-operation between producers and consumers in the context of the International Energy Forum.

Different views about the oil price swings and possible remedies are being expressed in numerous articles and other publications, and in many seminars. The purpose of this article is to report on, and assess, these views by classifying them in relation to different streams of thought.

### Views Related to the Economic Theory of Finance

The efficient market hypothesis is central to this approach. The main propositions are that prices reflect all the available information. The market is a mechanism for price discovery, and the prices discovered carry useful information. Market concentration (cartels, big players and so on) and lack of transparency distort prices. In the absence of such distorting factors prices follow a random walk. This is essential for ‘efficiency’ as it makes predictions impossible, and ensures that no participant enjoys advantages over others.

All economists recognise that markets suffer from imperfections, but the thinking of some is wedded to the essential features of the ‘efficient market’ paradigm. It is remarkable that nobody in this context has mentioned the late Professor Dornbush’s article on the inherent tendency of financial markets (foreign exchange in his article) to over-shoot. Interestingly,

some empirical studies appear to show that price behaviour in futures oil markets does not correlate with any variable that characterises activity in these markets. No correlation seems to exist between price movements and changes in the volume of transactions, the volume of open interest, the composition of participants, trading in index funds and so on. The question, of course, is whether the methodologies used are sharp enough to identify *marginal* changes instead of changes in averages that hide critical margins through a smoothing effect.

Assuming that the results of these studies are correct, two questions arise. To which variable, outside the activity of the market, do prices correlate? If the answer to this question is found regulators will have to focus on that variable, and radically change their thinking. The second question is: if no correlation is found, will this mean that prices move in a random walk? Some will argue that the answer, then, is probably yes. In that case we should ask: is it appropriate to use prices in a random walk in a market of a financial instrument, *efficient for its participants and nobody else*, as references in pricing formulae for some 45 or 50 million barrels per day of physical oil in international trade? If I became lost in some unfamiliar street would I ask a person walking in a strange random way for directions?

### The Practitioners

For sure, many of them know how the futures market works, and some understand it very well. But they will never tell us the full story. A long on-going debate on whether ‘speculators’ or ‘the economic fundamentals of supply and demand’ determine the price is poisoned by the vested interests of those who promote this or the opposite view. Spokespersons from the financial sector will often argue that it is all about fundamentals. One may suspect that this is meant to keep regulators at bay. Those who have reservations about the role of financial players argue that it is all about speculation. It would help if they bothered to define ‘speculation’ with some clarity and rigor.

There is no way through which a futures market that operates in real time could get data on oil supply and demand instantaneously. There are data collection and distribution lags. The call for more transparency, admirable as it is, may improve the reliability of data (albeit up to a point) that only become available after a lag. One may argue, however, that reliable data arriving a month late on a regular basis will improve the market judgment on today’s situation. This is correct. The problem, however, is to ensure reliability when OPEC’s production is reported by journalists, the so-called ‘secondary sources’, commercial inventories by busy company staff who often delegate the job to inexperienced juniors, and when double-checking is too onerous and rarely, if ever, performed. And I am always intrigued by those who insist that reserves estimates have to become transparent and reliable as if the size of reserves in exporting countries is relevant to the determination of oil prices other than in the very long run.

---

“Presently, there is no reason why views about current fundamentals should be changing”

---

It is evident that the market cannot relate closely to the state of short-term fundamentals. It may rely on proxies, for example, weekly changes in US commercial oil inventories. These are simplistically interpreted as to mean that supplies are tight when the inventory level has fallen, and that supplies are abundant when the level has risen. This is a *non-sequitur* because a weekly change in inventory levels may be due to a host of logistical factors such as a delay in tanker arrivals or a bunching of arrivals, or to planning errors causing some companies to order when they nominate liftings more (less) than they will actually need when tankers arrive to destination.

Some argue that the market is moved by perceptions of the long/medium

term (six or eight years ahead) supply-demand balance. These perceptions are influenced by proponents of the peak oil theory, as well as by statements considered authoritative made by the IEA, some major banks and some important consultancies. All those often expect that the oil market will be increasingly tight in the future because of demand growth in emerging countries (China and India) and failure of upstream investments to keep pace. In effect, those who hold these views, whether intentionally or otherwise, talk the price up.

Do not blame the bulls, therefore, who bid the price high; but just hope that those who are less bullish can create resistance before the price levels attained are too dramatically high.

Perceptions about the long term do not change rapidly. For this reason one would expect the back end of the forward price curve to display some stability. This is the Gabillon ‘cantilever theorem’ developed in an OIES publication many years ago. Recently this has not been the case. The back end of the curve has been moving despite the absence of news changing long-term perceptions.

The short term seems to rule. Presently, there is no reason why views about current fundamentals should be changing. Supplies are available even when demand rises because of the existence of significant surplus capacity in Saudi Arabia, Kuwait and Abu Dhabi. Furthermore, the term futures price structure is still in contango, meaning that the front market is well supplied. In the absence of significant oil news the market needs to look at changes in other variables. It seeks them in the financial realm: the exchange value of the dollar that leads traders to go long on oil when the dollar depreciates and short when it appreciates, and other financial indicators such as equity indices. Financial indices are interpreted as predictors of an imminent recovery. The implications for oil are obvious. Economic recovery leads to an increase in oil demand and to future price rises, which the futures market then anticipates.

The futures oil market is at all times a

financial market but never as much as when there are no significant changes in oil news. Those who emphasise its importance as a mechanism for price discovery would be right if they specify their statement as ‘the discovery of the price of a *financial instrument*’. The physical barrel of oil is a different commodity.

It is important to identify clearly the functions of the oil futures market. The first is that this market is the place where some agents hedge by buying or selling a futures contract (or taking a put or a call option) at a prevailing price that they wish to lock in. Speculators are those who have participated in bidding this price. The hedger/speculator paradigm means that one of the functions of futures and other derivatives is akin to an insurance system. The hedgers are in effect buying an insurance policy. If the market has no other function than this first one, the demand for hedging will determine its size. There can be no ‘exuberant speculation’ because hedging determines the volume of transactions.

---

**“It is in the use of futures prices as references for pricing oil in international trade that big swings matter”**

---

The second function is to serve players (often called investors) who bet on prices when they form a view about future movements. They will sell when they think prices will fall, and buy when they believe that they will rise. Their counterparts are players who either take a different view or who wish to realise profits on earlier transactions. In this context, the market is a betting casino.

The third function of the futures market is that it generates prices that exporters use directly or indirectly as references in their pricing formulae.

Hedging (the first function) as an insurance policy is as meaningful as other insurances. One may pay too

much in premia in relation to the risks involved, or secure a good bargain. Mounting a big hedging operation as the Mexican Central Bank did on more than one occasion may enable the hedger to obtain a higher price at a future date than obtained otherwise; usually, however, such large-scale operations bring prices down involving costs to those who had gone long.

Betting on prices (the second function) is akin to casino gambling. There are laws and regulations that apply to casinos. But how can they be applied to the derivatives markets without affecting other more useful functions?

Of course, gamblers usually hedge their bets. Hence, the prevalence of spread trading observed in futures markets. A spread trade involves two transactions. It generates therefore two flat price data by somebody who is not trading the flat price and is totally uninterested in its level.

It is in the use of futures prices as references for pricing oil in international trade that big swings matter. Big rises in international oil prices have an impact on most consumers. Big falls in prices cause delays in the implementation of projects, their postponement, and sometimes their abandonment. They affect the economies of oil importers when prices reach the sky, and the economies of exporting countries when they fall to abysmal levels. Low oil prices also worry OECD importing nations concerned about future supply security. (These worries may partly bridge the gap between prices preferred by producers and importers). Oil companies are also affected despite frequent public denials. Of course they are not going bankrupt but employees made redundant are entitled to feel badly affected.

It is difficult to say whether the oil price increases of 2007–8 were, together with the bursting of financial bubbles, the collapse of Lehman, the accumulation of toxic assets and the ensuing credit crunch, one of the causes of the economic recession. Yet, only a brave person would argue that future increases in oil prices above the current \$80 per barrel level will be neutral in respect of the recovery of the world economy.

## The Denying Game

We have already mentioned that some deny that speculation has anything to do with oil price movements on the grounds that it is impossible to define the term convincingly or because empirical studies failed to discover a correlation between activities in futures markets and changes in oil prices.

More vocally, many are now arguing that regulation is broadly irrelevant. They warn against the introduction of new measures that may cause collateral damage, or reduce liquidity, or induce traders to move their business from more to less regulated jurisdictions. In any case, they would say, regulation is more political than technical in nature.

Yet, hedgers need to be protected from any malfunctioning of the 'insurance' market. Regulators may want to protect the gamblers, politely referred to as investors, from manipulations and other malpractices. Although I have little sympathy for gamblers, the belief that they play a role in price discovery requires regulators to ensure that the game is clean.

For public relation reasons, we hear claims sometimes that oil price swings do not cause much damage. Even if this was true for private oil companies said to know how to adjust to adverse price movements, it may not be true for national economies.

Although I do not like to be associated with this group I must admit that I also do deny that the futures market is the right market to determine the reference prices for oil in international trade.

## The Reformists

Dissatisfaction with the current price regime has led to the call by Sarkozy and Brown (as mentioned before) for governments to cease being idle. The CEO of ENI, Paolo Scaroni, made a presentation to a G8 Energy Summit meeting in Rome on a Blue Print for a Quest for Stability. This involves eight propositions introducing various ideas about institutions and policies. The scheme is complex but deserves

thorough study and debate. Russia has ideas similar in one respect to the ENI proposal for a Global Energy Agency. I have also offered a contribution to the reform agenda (*Forum* no 74) which is based on the creation of an independent commission backed by a big research apparatus and an international convention that will set a reference price for oil once a month. This will take into account the state of the oil industry, spot and futures prices and other relevant parameters.

My call is for serious research on oil price regime alternatives. There are many other ideas that deserve evaluation. The argument that there are no alternatives to the current regime, made before any research is seriously done to assess the merits and drawbacks of other systems in relation to one another, is also a denial that thinly veils the powerful vested interests that either gain from the current situation or fear the possibility of unfamiliar changes.

Nothing needs to be done if everyone

is comfortable with the current oil price regime. But in that case why do influential authorities worry, angst and complain about price swings?

## The conclusion involves two simple propositions:

1. If something is to be done it should be done now when the oil market is relatively stable, not when we will be going through some new crisis.
2. Policy makers and regulators should focus on the real issue, which is the search for a new oil price regime. A less imperfect system than the current one may after all exist. All the talk and search for measures to improve the performance of the oil futures market through greater transparency, caps on the volume of transactions and so on is nothing but tinkering, necessary perhaps for other objectives than minimising the risks of destabilising price swings. Tinkering will fail to address effectively the issue of dynamic stability.