The Price Debate: do free markets provide the right signals?

JORGE MONTEPEQUE

The 2008 oil price spike, which was accompanied by similar sharp price rises in coal, iron ore, food, and many other commodities, sparked a debate which still resonates five years later. Countless articles, commentaries, conferences, and much learned debate has occurred over whether the market was working well and providing the 'right' price signals or whether it was dysfunctional or, worse yet, wilfully distorted. All these analyses seem to have been asking whether (a) the price rise was driven by fundamentals, (b) what factors were behind the price spike, and (c) what could be done about it. In some cases, it seems, solutions were devised before the nature of the problem was fully determined.

The Issue

Prices for Dated Brent, the bellwether for crude oils, reached a peak of over $145/bbl in June 2008, before tumbling all the way down to nearly $35/bbl later in the same year as markets corrected lower. The high prices and subsequent volatility shocked consumers, producers, and government entities alike. But such price movements are all a reminder that markets work by delivering messages that affected parties may not want to hear. They are not the sign of a dysfunctional market. Price is the allocator of supply and demand, providing the signals to invest in the production of new supply or conservation of resources to reduce demand. Above all, price modifies behaviour.

However, some of the signals carried in the price are painful to both producers and consumers. It is therefore understandable that many look for solutions to dampen volatility and even try to find a 'price' that is simultaneously comfortable for buyers and sellers. But this search for a compromise price leads to anomalies: if measures that distort the free market price signal are put in place, then needed investment or adaptation of behaviour by consumers and producers will not occur.

Experiments to manage price are as old as history. There are even examples of price controls from Roman times, designed to tackle inflation caused by budget deficits. More recently, there have been numerous examples of countries faced with runaway budgets that stem from attempts to shield the final consumers from retain price changes. One example is that experienced by the USA in the 1970s as it tried to control the price of gasoline and other products.

'Price is the allocator of supply and demand, providing the signals to invest in the production of new supply or conservation of resources to reduce demand.'

The 2008 crude oil price spike to nearly $150/bbl rattled many market participants, including retail consumers, airlines, and even professional traders, who had thought that the likelihood of prices rising above $100/bbl was remote. In retrospect, it has become clear that the key driver was that demand for oil was growing at a faster pace than supply. China and other emerging economies were enjoying rapid growth fuelled by a low interest rate policy driven by the US Federal Reserve. And economic growth needs energy, and lots of it. Chinese oil demand jumped from 4.8 mb/d in 2000 to 7.5 mb/d by 2007, a rise of over 50 per cent, according to the US Energy Information Administration.

Prices were the arbiter determining who was to have access to energy. Dated Brent prices in 2000 stood at nearly $30/bbl but had jumped to nearly $75/bbl by 2007, reflecting the pressure of growing demand. The fact that prices should double when demand had not risen by a similar quantum is far from unusual: in any market with low spare capacity, a relatively small change in demand can trigger a disproportionate change in price to ensure that production plus changes in inventories equals demand. *Caution: the opposite is also true.*

While the reasons for the price rise appear obvious in retrospect, the debate about the 2008 price spike continues. Most recently, a pricing expert at the World Petroleum Congress conference in Korea opined that markets were dysfunctional in 2008, and cast doubt on the validity of the $147/bbl Brent price. But it is worth noting that similar, if not higher, prices were observed simultaneously in the USA, Canada, Africa, Europe, the Middle East, and Asia. The high price was global and was detected independently by publishers, exchanges, and the public.

The price reversal in late 2008 turned into a stampede with a thinner herd galloping the other way. Prior to this period, energy had been considered to have a low price elasticity. The theory was that consumers would not react to high prices and were price insensitive. Instead, US gasoline demand peaked in the summer of 2007 at 9.6 mb/d following a history of nearly ruler straight line year-on-year increases. Consumers literally voted with their feet and a process began where medium- to small-sized vehicles started to see their market share grow. Again, a relatively small change in demand had a disproportionately large impact on prices.

The crude oil price retreat that followed the all-time highs was fast and furious. Prices started to fall in early July 2008, and by the end of the year had dropped to $35/bbl. A rapid output cut by OPEC, monetary easing, and political events which included the 'Arab Spring' and other instability in the Middle East, subsequently moved prices back above the $100/bbl line with occasional jumps towards $120/bbl.

The Disconnect

At this stage, however, a disconnect emerges between the data showing what drove the price up (and down) in the

new millennium, and the various measures debated to 'address' the price issue. Concerns continue over transparency in oil markets, despite the fact that oil is the most tracked commodity in the world, with service providers delivering information covering production, inventories, ship movements, the opening and closing of arbitrages, and most importantly trade data covering who bought and who sold and exactly at what prices.

Countless hours have been spent trying to find a more interesting result to investigations than just mere supply and demand forces at play. The lack of any hard data suggesting evidence of the malfunctioning of markets has not stopped well-intentioned proposals and measures from being issued to address potentialities and probabilities.

Meanwhile, the market continues to work.

High prices are not only supposed to modify buyers' behaviour. Prices also influence sellers' behaviour, investment, exploration, and production plans. Coinciding with the oil price spike, a new round of investments, financed by the high prices, took over in the USA with the advent of technology that enabled the exploitation of shale reserves.

'Prices were the arbiter determining who was to have access to energy.'

US production has increased by over 50 per cent since 2008 to nearly 8.0 mb/d, the highest in over 25 years, while oil imports have hit an 18 year low. It is fairly easy to conclude that the sharp increase in production is a direct function of the recent high prices. Figure 3 below shows the remarkable American experience, where output so far in 2013 has risen by 17 per cent versus last year. And on a total liquids production, the USA has become the largest producer globally as it is churning out roughly 7.8 mb/d of crude plus nearly 2.5 mb/d in natural gas liquids and over 800 kb/d of biofuels. The total places the USA above Russia, the second largest producer.

Other geographical areas have not benefited as much as the USA from the afterglow of the price boom as either they do not have the resources or the infrastructure, while they may have high taxation regimes that discourage investment or have policies against shale development.

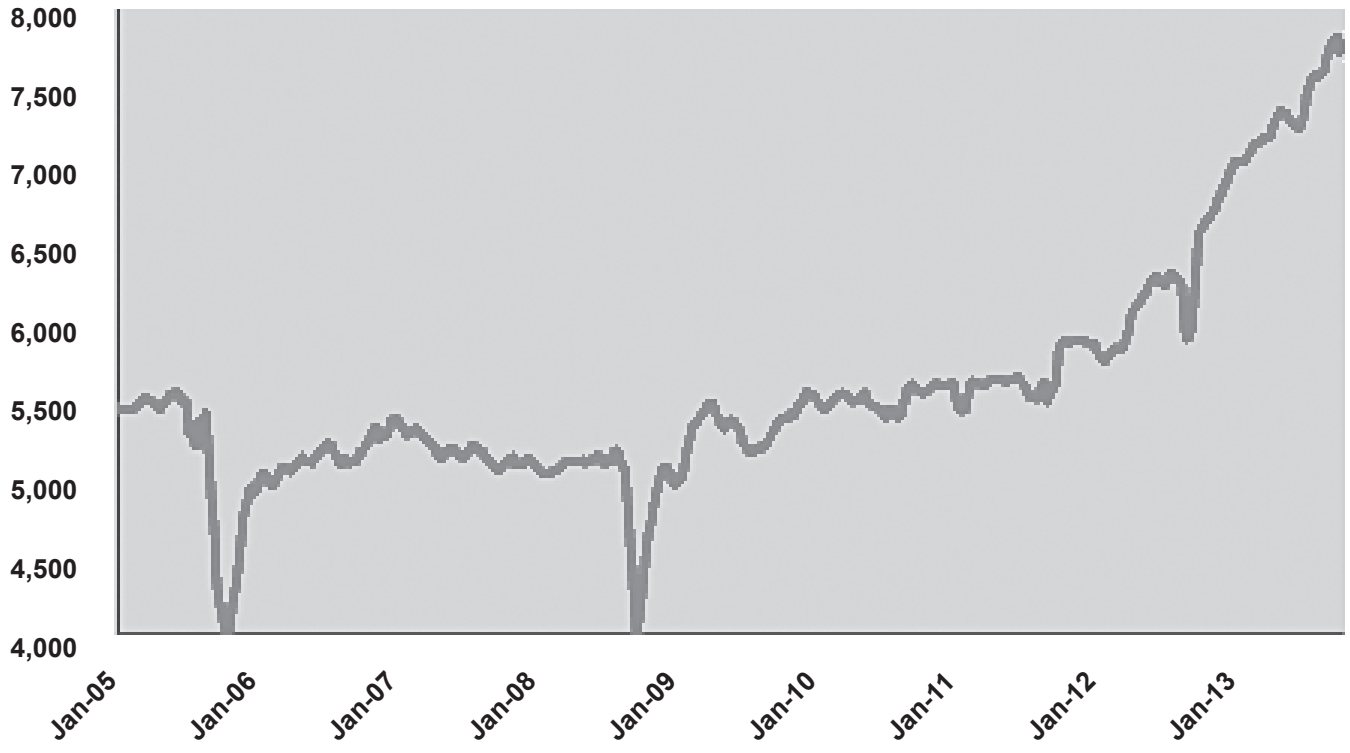
The 'Solutions'

While classical economists would look to address prices on measures that would change demand or supply, efforts on the 'soft' side of pricing continue. There are various initiatives to improve transparency and/or implement new procedural or data recording measures.

One area of concern in the overall industry is the potential for unintended consequences in the fabric of pricing processes, more so because the energy industry is undergoing major fundamental changes.

There are many inflection points or sharp changes in direction that are taking place currently. These include such key developments as the change

Figure 3: US production of crude oil, mb/d.



(source: EIA)

from the USA being the largest waterborne importer of crude oil to the second largest, ceding the top spot to China. There is also a continuous decline in North Sea production, which has been depleting at the rate of about 7 per cent per annum amid signs that the major building of refineries in Asia and Middle East will point to possible large refinery shutdowns of close to 2.0 mb/d in the next five years or so in Europe if the current economic conditions do not pick up. Europe's role could dim due to a combination of oil fundamentals both reducing crude oil output and demand, and an environment filling up with regulatory exposures. These changes point to a need for greater Middle East–Asian crude pricing prominence at the expense of the West, with a likely growing reliance on the Dubai benchmark, although some expect Europe to become more business-friendly if the slowdown or production decline is too steep. As an emerging sign, the UK is undergoing a deep review of investment in the country and looking at what needs to be changed to arrest the production decline.

Nevertheless, several Middle East and Asian participants ponder their reliance on Western systems as the structural weight of demand moves east. Early warning signs have already emerged, as there is some evidence of balkanization in Western markets as non-US domiciled entities are only wanting to trade with similarly incorporated entities to avoid Dodd–Frank or any other transnational issues.

'… the core market concern is liquidity …'

But the core market concern is liquidity. There are fears that growing requirements from the trade will naturally raise costs and cause an exit or re-routing to less onerous areas. Some have noticed the declining liquidity in natural gas market futures as evidence of a retreat. Liquidity is also declining in the derivative markets, with some noticing a loss of market depth as participants encounter fewer choices when needing to trade.

Platts tracking of derivatives versus physical markets show a change in composition between 2012 and 2013. The share of derivatives instruments shrank from 55 per cent to 51 per cent on a year-to-year basis.

Regardless of whether energy markets are providing unbiased price signals, very few would disagree that a free market price undoubtedly provides the correct triggers to influence demand and supply. And this price message should not be tampered with or guided, even if the message is not welcomed. After all, if there is a concern over high prices, one should not forget the maxim 'there is nothing like high price to cure high prices', as we saw in the downward correction in US natural gas prices and the emerging behaviour in the US crude oil market. High prices brought about innovation and supply in those countries open to energy development, and if prices were to fall by natural causes, such a decline would rightly encourage the seeds of increased consumption, bringing about another upward cycle.