The current oil price cycle and reflections on Mabro's work

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Between 2011 and mid-2014, the oil price traded within a very narrow range, with quarterly average Brent prices exceeding the US$100/bbl mark for 14 consecutive quarters. This relative stability has been remarkable given the various shocks – ranging from macroeconomic shocks, to geopolitical shocks, to unplanned outages, and to supply shocks – that have hit the oil market. This relative price stability, however, was disrupted and since June 2014 the oil price has fallen sharply and price volatility has intensified. While multiple factors can account for the recent fall in the oil price, the role of OPEC and its dominant player, Saudi Arabia, has received special attention. This should come as no surprise. Mabro has always argued that OPEC's output decisions (including the decision not to adjust output) matter the most in a 'weak' and 'over-supplied' market, and not in a tight market when OPEC is producing close to its maximum capacity.

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Every oil price cycle has its own special features and this one is no different: the advent of the US shale revolution, the associated shifts in crude oil and product trade flows, the entry of a new set of players with a new business model, and the changing nature of the geopolitical risks are just a few of them. However, there are some fundamental features that have run across all previous cycles: the problem of excess supplies, rising levels of inventory, the over-investment question, OPEC behaviour and its relation with non-OPEC producers, the fundamental trade-off between maximizing revenues and maintaining market share, and the role of market sentiment. Mabro's intellectual edge in analysing the oil market can be attributed in part to his extraordinary ability to understand and identify the fundamental questions facing the oil market while brushing aside transient factors; it goes without saying, he had very strong views about all these fundamental issues.

The problem of excess supplies

The root to any sharp fall in the oil price is *ex ante* 'excess supply' whether actual or perceived. This oil price cycle is no different. A period of high and stable oil prices generated demand, supply, and investment responses (though with a lag) strong enough to shift market perceptions from oil scarcity to oil abundance. While geopolitical disruptions and unplanned supply outages masked some of these demand and supply responses for a prolonged period of time, the high oil price (and technological developments) unleashed powerful forces that had a profound impact on oil market dynamics. Slower oil demand growth than originally expected, high non-OPEC supply growth driven by US shale oil, the easing of disruptions in the second half of 2014, and OPEC not adjusting its output resulted in large

stock-builds in 2014 which continued well into the first half of 2015.

Mabro has always been very precise about causality, which runs from excess supplies due to a disequilibrium in supply/demand, to inventories, to prices. In a seminal paper[1] (quotations from which appear in this article), he argues that it is '*excess supplies which initially cause stock levels to rise, and it is excess supplies which depress prices at the near-end of the term structure, and ultimately may cause a contango to obtain*.' But for Mabro, the problem does not stop here as the contango '*in turn provides an inducement to build stocks'*. As a result, '*a vicious circle is set in: excess supplies through this causal chain create a situation in which new demand exceeds consumption requirements and adds to stocks. Excess supplies lead to further excess supplies. The contango feeds on itself until storage facilities, including tankers, become so full as to raise the marginal cost of additional stocks to very high levels*.'

There is one aspect of Mabro's reasoning that is quite problematic. Demand for inventories for speculative purposes should support the front price, and rather than widening the size of the contango, it should have the opposite effect. Mabro, however, was of the view that a high level of inventories, together with concerns that storage tanks can reach their maximum limit, reinforces the market perception of over-supply, exerting downward pressure on the front end of the price curve, widening the spread, and giving private players the incentive to accumulate more stocks. This problem of large stock-build, rooted in '*a disequilibrium in the supply/demand relationship is aggravated … by the "sentiment" that producers intend to pursue aggressively an output objective'*. Negative sentiment will push punters in futures and other derivatives markets to sell and '*whenever the willingness to sell exceeds the willingness to buy prices fall, as this is the only way in which an imbalance between* ex ante *intentions can yield an* ex post *equilibrium. On this count too prices immediately fall*.' In Mabro's thinking, negative sentiment is induced by changes in market fundamentals and changes in perception about the behaviour of key producers.

Was Saudi Arabia's response unexpected?

For Mabro, it was very clear that it is the marginal barrel that sets the oil price, regardless of the size of the spare capacity in the system. Producers should therefore avoid forcing 'excess supplies' into the market as this policy is self-defeating: the decline in the oil price will offset the impact of any increase in volumes and as a result total revenues would fall. The quickest and most effective way to clear excess supplies is for producers to cut production, reversing the trend of rising inventories. No producer disagrees with this simple principle. The disagreement arises as to who should bear the burden of the output cut, especially if the needed cut is large.

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Mabro was very much aware that producers, both within and outside OPEC, would try to shift the burden of the cut to Saudi Arabia, the dominant producer within OPEC. But he was sceptical whether this would ever work, especially in the aftermath of the 1986–8 events, which saw Saudi Arabia's production fall to very low levels in an attempt to defend the oil price. As he puts it, '*the point that Saudi Arabia has been making consistently since 1985, backed by its policy in 1986 which was a genuine price war, seems to have sunk in. Saudi Arabia's willingness to cut output on its own to influence the course of oil prices could not be taken for granted. In fact nobody could realistically expect to see such willingness ever emerging again*.' In this current cycle, the message also took a long time to sink in: up until the OPEC meeting in November 2014, many market analysts believed (or perhaps were hoping) that Saudi Arabia would come to the 'rescue' and put a floor under the oil price.

Mabro recognized that any future cuts should not be limited to OPEC, but should be shared by non-OPEC countries for the simple fact that '*OPEC no longer includes in its membership all the relevant exporting counties* and therefore *it only provides a partial framework for effective policy making'*. Therefore, he advocated that OPEC producers find '*imaginative ways* [to secure] *the involvement of outside exporters in policy making without attaching them to the Organisation with formal ties'*, which remains an elusive goal as recent events have shown. He argued that '*the co-operation issue does not concern large exporting countries exclusively … production increases by small producers, in aggregate, can also cause similar damages. And small producers are equally vulnerable to the reduction in revenues stemming from a fall in price. They have a fundamental interest in co-operating; not as we are often told to take a free ride*.' While this logic applies to small players such as shale producers, the decentralized decision-making process and the fact that these are private players make it very difficult, if not impossible, to cooperate on output cuts.

The perils of market share

Mabro was very critical of those producing countries seeking market share whatever the cost, as the interest of exporting countries should

be '*in revenues, not in volume as such, and not in prices as such* for the simple reason that *there is an interdependence between prices and volumes'*. Specifically, '*attempts to increase volumes against an inelastic demand would cause prices to fall by more than the volume increase. And changes in oil prices do not necessarily result in commensurate changes in oil production*.' Mabro was very cynical of people '*who persistently advocate that OPEC should pursue a market share policy come what may, that is maximise volumes without worrying about the price impact'* and that these people '*are not offering sensible advice'*.

However, he was pragmatic enough to recognize that there are some exceptions and for a dominant producer – such as Saudi Arabia with a large reserve base and idle capacity – there are other objectives that would shape their oil policies. Therefore Mabro argues that '*there are situations, as in 1986 for example, when the collapse in Saudi Arabia's export volumes was so significant as to require a drastic price war to improve the position on the volume front'* but he adds that '*outside these specific instances the pursuit of market share by an oil exporter or a group of exporters is not a sensible policy because the costs involved can be very high during its implementation and the future benefits too distant and too uncertain*.'

Thus, while recognizing that the revenue objective remains key for any producer (given such countries' high dependency on oil revenues) the revenue objective should not be treated in isolation from other objectives (such as maintaining production volumes 'at reasonable levels') for big producers such as Saudi Arabia. Maintaining reasonable levels of production would ensure that idle capacity is not so low that prices could not be stabilized in case of disruption, while not so high to keep downward pressure on the oil price (avoiding a large loss of market share to competitors). A trade-off will always emerge for any country faced with multiple objectives but a limited number of tools. Mabro's main concern was that under certain market conditions, the 'market share over revenue' trade-off could prove very costly with no clear benefits.

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While accepting that price wars are unavoidable to enforce discipline and cooperation among producers, Mabro was very aware of the costs involved in such a strategy. He argues that '*price wars … cause huge losses and do not achieve their objective, which is to eliminate the competition*. To succeed in eliminating competition, prices have to fall below costs. But this may not prove to be enough. Expectations also matter and therefore prices have '*to fall a long way and price expectations have to remain depressed for a long time for a significant improvement of the market share of those who launch an oil price war'*. He was sceptical whether any oil-exporting country '*has the financial resources which enable it to sustain such a policy'*. The current cycle shows that some producing countries have managed to accumulate large financial buffers and thus the ability to withstand a period of low oil prices; this ability, however, varies tremendously across producers, which in turn affects the incentive to cooperate.

The investment question

For Mabro, oil market conditions at a certain time should not be treated in isolation from past investment decisions. The adjustment mechanism in the oil market is far from smooth: the oil market can witness long periods of surplus capacity followed by periods of shortages of capacity relative to demand. Furthermore, these alternating states of the oil market affect investment decisions and, hence, future supply availability and long-term productive capacity. While OPEC is not an organization which aims to coordinate investment plans among its members, Mabro was wary of producing countries increasing their productive capacity without any consideration of global demand or other producers' investment plans because '*an investment race pursued blindly can have similar effects to those of a price war'*. Therefore, '*if exporting countries want to protect their revenues through co-operative action they need to address the price, the volume and the investment issues in their interaction'*.

Communicating to the market

Mabro was very aware that in a more complex oil market with a more diverse set of players, many of whom have no interest in the physical commodity, an effective communication strategy is key to a successful oil policy. After all, OPEC is in the game of signalling its intentions to the market, in the hope that the market would react to such signals, smoothing the adjustment process. Therefore, Mabro argues that '*the presentation of a policy or an agreement is important. This requires skills and more particularly a deep understanding of how the oil market functions, how it forms its views, and how it responds to news*.' Therefore, he calls on exporting countries to invest resources in personnel with these particular talents. But for Mabro, it is not only a matter of presentation, but also a '*matter of substance*' otherwise the market would consider OPEC signals as cheap talk. Surprisingly, he advocates '*transparency*' in oil policy and provision of data, as it '*may serve better the interests of oil-exporting countries than the leaking of distorted information on production,*

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investment plans and the like'. He also recommended '*silence*' when there is nothing to say as it '*has great merits when there are misunderstandings between major players* [as] *public statements in such a situation only deepen the rift to the detriment of all parties' interests*.'

Conclusion

Mabro was visionary in many respects. His deep understanding of the structural challenges faced by producing countries enabled him to look beyond transient issues and appreciate the constraints on oil policy. His deep understanding of the oil market and the evolution of the behaviour of players also enabled him to detect changes and emerging trends well before they became apparent to others. More than a decade ago, he recognized that the '*mind set which determines the conception of policy has been shaped by old experiences and traditional ways of approaching problems. This mind set is far too rigid and does not appear to be sufficiently relevant to the challenges posed by the oil market*.' Throughout his career and in his writings, Mabro has always tried to identify these challenges, drawing lessons from past cycles, challenging the conventional wisdom and established truths, and proposing 'imaginative' ways to broaden the mind set.

Note

[1] 'The Oil Price Crisis of 1998', Robert Mabro, OIES Working Paper SP10, 1998.