

The Rise of OPEC

By Andreas Economou*

Introduction

Amid the big drop of the international dated Brent benchmark to \$47 per barrel in January 2015, down from \$111/bbl. in June last year, a great debate was initiated about the main causes and consequences of this drop. Consensus has now emerged, attributing the unexpected imbalance of supply and demand as the prime factor of the price shock. The rapid growth of U.S. tight oil production was confronted by a sluggish growth in global demand for petroleum liquids. Yet OPEC's decision to maintain its current production levels at 30.0 mmbpd¹ in November 2014 besets researchers and industry alike, with the changing dynamics of the oil market that lie ahead. A priori discussions pertain to the impairment of OPEC dominance on the supply-side of the oil market, the declaration of a 'price war' against the high-cost shale production in North America and the ceding of OPEC pricing power to the U.S.

Fundamentally the sentiment expressed in the OPEC debate will set the base for the continuation of the oil price cycle. There are now serious concerns that the current strategic decisions of the market participants are based on false expectations about OPEC strategy based on misconceptions regarding its behaviour. Until adequate consensus is developed, higher price uncertainty will reign, putting at risk sustainability in the global energy markets and the world economy.

Price Response

As oil prices started to fall precipitously in the second half of 2014, the immediate reaction of market participants was to expect OPEC to intervene and lower its production quotas in order to rebalance supply-demand (Figure 1). Alas, the organisation, led by Saudi Arabia, had very recently shown clear signals that it was not willing to influence the course of oil prices, at the expense of its long-term market power. Following the 2008 financial crisis, the oil price recorded its first significant collapse since early 2012. Similar to the current conditions, the then sluggish world economy backed by heightened Eurozone sovereign debt concerns and the consequent weak economic outlook was confronted by the ample supply of non-OPEC crude oil in the market. As a result oil prices collapsed by 31% in the course of three months, from \$125/bbl. in March, down to \$95/bbl. in June 2012. OPEC at its 161st Ordinary Meeting, on 14 June 2012, concluded that its production quotas would remain unchanged at 30.0 mmbpd despite strong dissent from Iran, Venezuela, Nigeria and Angola.² The organisation, in defending its market share, had decided to keep prices at reasonable levels thus not only protecting its supply-side dominance, but also protecting its crude from global 'demand destruction' as a result of fuel substitution and improved efficiency.³

Relatedly ahead of the recent collapse, in November 2014 OPEC's 166th Ordinary Meeting concluded that its crude oil production would be maintained at the level of 30.0 mmbpd.⁴ Yet OPEC's announcement was strongly denounced by oil market participants, who saw this decision as a declaration of a "price war" against the high-cost shale production in North America. The intense debate that followed suggests that OPEC has chosen to defend its long-term market share against a high price, by slowing down the rise of the production growth coming from unconventional deposits.⁵ This argument is based on the premise that low oil prices are below the level necessary for U.S. shale producers to at least cover their exploration and production costs (breakeven), and thus the pre-shock growth rate of output cannot be maintained. The predominant view has been that Saudi Arabia, the organisation's de facto leader, abandoned its leadership role as the global 'swing' producer; and that hence OPEC has ceded its pricing power to the U.S. According to this logic, which implies a competitive market regime, the marginal cost of U.S. tight oil production would become the new ceiling for global oil prices.⁶

In the face of such criticism, the organisation defended publicly its decision by stating that OPEC is "neither dead nor at war"⁷, and rightly so. Evidently the recent downturn of oil prices was neither related to, nor stemmed by, OPEC expanding or managing its output. First, the market oversupply did not originate from OPEC and thus why try to police it (Figure 2)? In the aftermath of the 2008 oil price shock, supported by the high oil prices, the world oil market witnessed an unprecedented boom in U.S. tight oil production from seven key shale formations.⁸ Since 2010, the U.S. production has been increasing on average by 10.35% per annum, while in 2013-14 alone, it increased on average by 15.64%; adding 2.16 mmbpd of new production in a saturated global market. As of 2014, total U.S. crude oil production reached 8.6 mmbpd, up from 5.0 mmbpd in 2008.

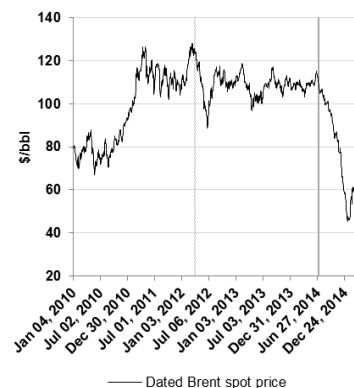


Figure 1. Daily spot Dated Brent price in USD per barrel; 04 January 2010– 30 April, 2015.

Data: U.S. EIA

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See footnotes at end of text.

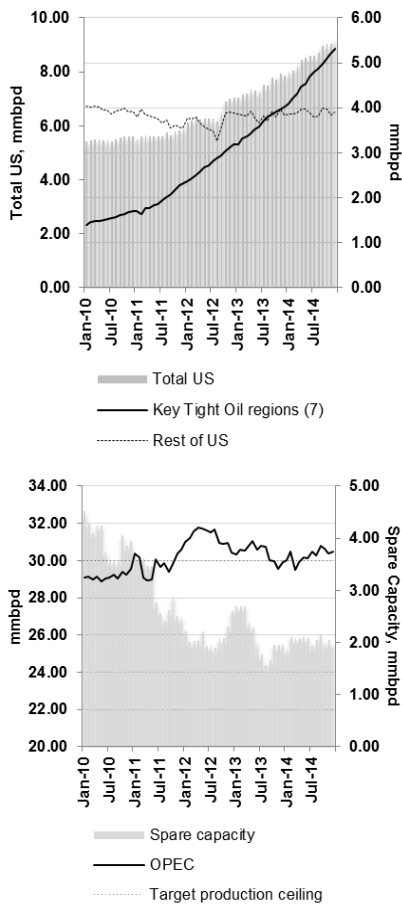


Figure 2. Monthly production profiles from the U.S. and OPEC in million barrels per day; January 2010–December 2014.

Data: Oil and Gas Journal; U.S. Energy Information Administration.

on 5 June 2015 are unwarranted.

Third, OPEC defends its long-term interests and business objectives, meaning that subsidising higher-cost production and the alternative energy sources or conservation efforts to replace oil at the expense of the organisation’s market share is not the role of any of its members. Essentially the highly efficient OPEC producers with ample low-cost capacity saw their market share being replaced by non-OPEC production of poor-efficiency.¹³ OPEC market share has been in decline since 2012, due to the rising North American supply and the collapse in Libyan output, at 38.9% as of December 2014; a decrease by 3.06% from its recent peak of 42.96% in September 2008. The U.S. surpassed Saudi Arabia and became the world’s largest petroleum liquids supplier in December 2012. By the end of 2014 the spread between the market shares of the two increased at 3.30 mmbpd or 3.46% of the total in favour of the U.S. Moreover, crude oil’s market share in the global energy mix has been in steady decline since 2004 (43.9%), down to 40.6% of the total in 2012. Given the vast amount of low-cost crude oil reserves in OPEC nations and the strong fiscal dependency of their economies to oil rents, a permanent diversification of the energy markets poses a serious threat, based on which ‘price ceiling’ is becoming increasingly relevant to the OPEC price band.

Beyond Crude Oil

The post-2000 era of persistent high-oil prices at and above \$100/bbl. offered not only a favourable economic environment for boosting U.S. unconventional production of crude oil but it also created an economically sustainable environment for policies, subsidies and investments towards developing pathways to

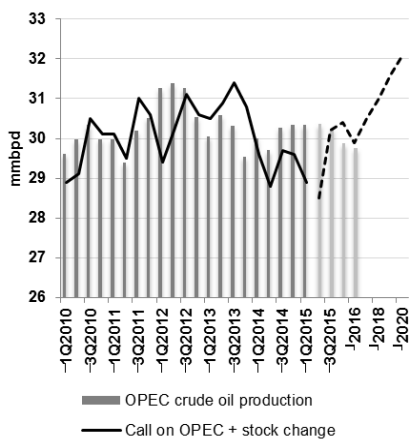


Figure 3. Quarterly actual and predicted ‘Call on OPEC’ in million barrels per day; Q1 2010–2020.

Data: International Energy Agency.

an energy efficient and carbon-emissions-limited world. Since 2000, non-fossil fuel investments quadrupled, increasing from \$65 billion to a high point of \$310 billion in 2011.¹⁴ The International Energy Agency argues that of the \$8 trillion investment in energy efficiency to 2035, 90% will be spent in the transport and building sectors. The transportation sector is the only sector that continues to support crude oil consumption and it accounts for around 63% of the total, as of 2014. Based on the production costs of alternative transportation fuels, in the long-term, and conditional to other parameters, several alternative options may become competitive on an energy basis at a \$60/bbl. oil price range.¹⁵ As such, as the oil price increases, more fuels become competitive. On a per kilometre basis the alternative transportation fuels compete with gasoline when the oil price is at near \$150/bbl. In fact in January 2015, the International Renewable Energy Agency argued that low-oil prices have already had negative effects on electric cars and biofuels as these compete directly with the petro-fuelled cars.¹⁶

Putting the above in the context of OPEC's decision, historically, conventional wisdom has been that the organisation defends a price floor and a price ceiling in order to ensure an economically sustainable flow of revenues and to avoid "demand destruction" for its crude in the long run, mainly by limiting the entry of substitutes and technical change. Whereas the ceiling was not relevant in the price band before the 2000s, in recent years the perception that OPEC would respond to defend prices from rising too high has become increasingly important. Between 2000-12 crude oil's share in the global energy mix decreased cumulatively by 8.82%, at an annual average change of minus 0.68%, as it has historically been found to be very responsive to positive price shocks. In particular its share declined markedly following the 1979-80 oil shock, by 5%, while it increased by 3.5% during the prolonged low-oil prices of the 1990s and continues to fall steadily since prices spiked in 2003; already down by 4% in 2012 (Figure 4). Hence OPEC attempts to face a new realisation, according to which the need to protect its crude from competition, arises not only from the world oil market but also crucially from the global energy market. In this context the oil-exporting organisation has extended its dominant stance into the global energy industry. An irreversible substitution of petroleum liquids by an alternative source of energy does not necessarily require a transportation fuel as efficient as gasoline or diesel, but does require enough technological maturity to overcome the cost-barriers via a continuous stream of investments towards Research and Development. Each percentage drop of crude oil's share in the global energy mix means that the OPEC member states, whose economies are strongly dependent on oil rents, are driven out of business.

OPEC Behaviour

Undoubtedly the persistent high oil prices, not least since 2010 onwards, induced adverse effects on OPEC crude in terms of the strong non-OPEC supply response, the negative impact on world growth and inflation affecting petroleum demand, and the encouragement of substitutions. Yet, the market participants stood upon false expectations about OPEC strategy based on misconceptions regarding its behaviour. Despite popular belief, historically, OPEC only managed to control either its price or output. In general over the past fifty years its strategy has served its goals remarkably well.¹⁷ The only major exception has been its aggressive high-pricing strategy in the 1980s that resulted in both a significant loss of its market share and diminishing oil prices. As such, the organisation has learned that it is better off in the long run by maintaining its exports' share of non-OPEC demand, and increasing its market share as necessary.¹⁷ Target bands for the 'optimal price' could only apply under normal market conditions, as their effectiveness is subject to assumptions about the future of highly uncertain parameters (i.e., economic activity, income and price elasticities, etc.).¹⁸ Thus the preferred price target, or 'monopoly ceiling', of \$75-80/bbl. marked in 2009 by King Abdullah of Saudi Arabia¹⁹, has been mistakenly regarded as a long-term strategy. The Arab oil exporters (excluding Iraq) alone have access to \$1.29 trillion of international financial reserves²⁰ to buffer any lost revenues due to curtailed oil exports. This so-called 'Core' within OPEC²¹ has the material spare capacity, political stability and ample financial reserves to act collectively and exert market control. The rest of OPEC countries struggle with the weak structure and high costs of each country's oil industry, their poor institutional and political capacity and their high budgetary needs due to the geopolitical and social turmoil.

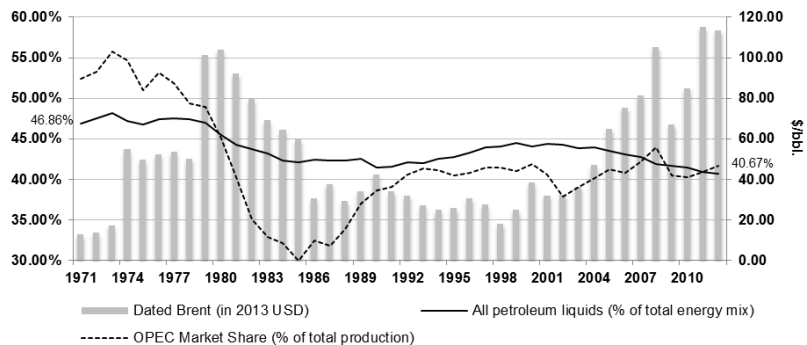


Figure 4. Annual comparison of OPEC market share and crude oil's share in the global energy mix as a percentage of the respective totals; 1971–2012.

Data: International Energy Agency; Oil and Gas Journal.

Conclusion

Noting the compelling nature of a temporarily ‘free market’, OPEC and its GCC²² members more specifically, are the only producers best equipped to survive through this uncharted era. The real challenges, self-inflicted as these may be, fall in general on non-OPEC producers. Looking ahead, the external and internal dynamics, such as regional instability and domestic growth in petroleum consumption, will still play a pivotal role in the future of the organisation. Yet Saudi Arabia is allowing price discovery, in view of a coordinated long-term strategy of sustainable investment and output policies with the objective of maximising OPEC market share and ergo the oil rents accruing to its members. OPEC has repeatedly expressed that the central pillar of its policy is to seek stable oil prices amid well-balanced oil markets. To achieve this goal, OPEC is seeking consensus, which dictates that the new non-OPEC supply growth is beneficial for the oil market but it requires some sort of collective control, especially since the global economy has yet to recover from its deep recession and the backstop technologies are in play. Historically OPEC has been an especially challenging economic organisation to manage endogenously. Currently, its maturity has stemmed these challenges exogenously, to the energy market as a whole. The industry, governments and policymakers need to realise this bigger picture and reconsider their strategies accordingly, as OPEC has masterfully done.

Footnotes

¹ Million barrels per day.

² OPEC. (2012). *OPEC 161st Meeting concludes* (No 2/2012, 14 June 2012). Retrieved from http://www.opec.org/opec_web/en/2313.htm

³ Stevens, P., & Hulbert, M. (2012). *Oil prices: Energy investment, political stability in the exporting countries and OPEC's dilemma* (EEDP Programme Paper: 2012/03). London, UK: Chatham House.

⁴ OPEC. (2014). *OPEC 166th Meeting concludes* (No 7/2014, 27 November 2014). Retrieved from http://www.opec.org/opec_web/en/press_room/2938.htm

⁵ Stevens, P. (2014). Déjà vu for OPEC as oil prices tumble. *Chatham House*. Retrieved from <http://www.chathamhouse.org/expert/comment/16368>

⁶ Kaletsky, A. (2015). A new ceiling for oil prices. *Project Syndicate*. Retrieved from <http://www.project-syndicate.org/commentary/oil-prices-ceiling-and-floor-by-anatole-kaletsky-2015-01>

⁷ Saudi Arabia's Minister of Petroleum and Mineral Resources, HE Ali I. Al-Naimi, address at the German-Arab Friendship Association in Berlin, on March 4, 2015 (Access: <http://www.saudiembassy.net/announcement/announcement03041501.aspx>).

⁸ The seven key Tight Oil regions are: Bakken, Eagle Ford, Haynesville, Marcellus, Niobara, Permian and Utica.

⁹ U.S. Energy Information Administration. (2015a). *Annual projections to 2040*. Retrieved from Annual Energy Outlook database.

¹⁰ U.S. Energy Information Administration. (2015b). *Short-Term Energy Outlook* (February). Washington, DC: U.S. Department of Energy.

¹¹ EIA's most recent published estimates on U.S. remaining shale oil reserves date back in June 2013, at 58.0 billion barrels per day. We estimated that during 2013-14 the total U.S. tight oil production amounted at 2.75 billion barrels, 46% of the total U.S. crude oil production.

¹² U.S. Energy Information Administration. (2015c). *Shale gas and tight oil: A game changer for the U.S. energy market and a possibility for North Africa*. Presentation presented at the Annual Conference on Middle East and North Africa Energy. London, UK: Chatham House.

¹³ Production efficiency is defined as the actual production divided by the maximum production potential.

¹⁴ International Energy Administration. (2014). *World Energy Investment Outlook*. Paris, France: Organisation for Economic Co-operation and Development.

¹⁵ International Energy Administration. (2013). *Production costs of alternative transportation fuels*. Paris, France: Organisation for Economic Co-operation and Development.

¹⁶ Clark, P. (2015, January 18). Falling oil prices threaten electric cars and biofuels. *Financial Times*. Retrieved from <http://www.ft.com/cms/s/0/73087796-9e79-11e4-a37e-00144feab7de.html#axzz3a7eRTjht>

¹⁷ Gately, D. (2011). OPEC at 50: Looking back and looking ahead. Paper presented at the Conference on “OPEC at 50”. Tulsa, Oklahoma: National Energy Policy Institute.

¹⁸ Gately, D. (1995). Strategies for OPEC's pricing and output decisions. *The Energy Journal*. 16(3), 1–38.

¹⁹ Saudi King sees fair oil price at \$75-80: report. (2009, May 26). *Al Arabiya*. Retrieved from <http://english.alarabiya.net/articles/2009/05/26/73884.html>

²⁰ Economist Intelligence Unit. (2015). *Macroeconomic data: Oil exporters*. Retrieved from The Economist – Intelligence Unit database.

²¹ Saudi Arabia, Kuwait, United Arab Emirates and Qatar.

²² Gulf Cooperation Council. Originally known as the Cooperation Council for the Arab States of the Gulf.