

The Collapse of Crude Oil Prices: Cyclical Evolution or Market Manipulation?

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Abstract

In this paper I try to present the recent drop in global oil prices which is affecting economies around the world. I tried to show the causes behind the falling prices and their effects on major energy consumers and producers.

One may see some structural changes in the oil market, particularly the rapid growth in oil supply and the decline in demand covering the 2001-2012 period in some important developed countries, like Eurozone states and Japan.

In the absence of any production cuttings of OPEC and a robust economic recovery in the developed countries and under the circumstances of a slowdown of BRICS economies, first of all of Chinese economy, one cannot predict any price increase on short term. But very low prices will seriously affect shale oil production in USA and oil production outside OPEC which will work towards balancing supply and demand after a while.

Any price prediction on medium and long-term is currently difficult and also uncertain and the only certainty seems to be the large fluctuations of oil market prices under the influence of some future military, political and economic events.

Keywords: *oil price, market, supply, demand, trend, OPEC, shale oil, oil companies, economic cycle*

JEL Classification: *D43, F43, F44, L13, O13, Q31*

Introduction

In the last 40 years, i.e. after the first oil shock of 1973, crude oil prices have fared cyclical periods of strong growth which alternated with periods of moderate decline and stagnation, the last ones with a longer and a positive impact on world economic growth. We have observed another interesting phenomenon: the contradictory (different) evolution of energy prices, other commodities and gold with that of the quotations on the stock exchanges, more or less speculative booms on stock markets contrasted with the decline in prices on commodities and spot markets. Thus during the recent financial and economic crisis crude oil and gold prices recorded a strong upward trend while stock prices in major stock markets recorded a severe rebound. However two moments appear similar if not identical on the crude oil market: price collapse of 1986 (so-called oil countershock) and collapse of 2014, both with Saudi Arabia, the largest exporter in the OPEC, having a significant contribution.

The collapse of oil prices adversely affected financially mainly the large producers and exporters, led by those from the Middle East, Russia, Venezuela and also the major international oil companies, their earnings and stock quotes decreasing dramatically. Thus from June to December 2014 Exxon-Mobil's stock value dropped by 10.3% and Chevron's stock value by 17.2%.

Crude oil price is a directory price in the energy market, especially for fossil fuels, that is why the prices of natural gas and coal tend to be aligned in the medium term to crude oil price, even if very short-term evolution may be somewhat different. For example, the spot price of natural gas in the US market has reduced to some extent (see Figure 1) in the second part of 2014 in conjunction with the pronounced decline of oil price.

Upward Trend in Crude Oil Prices since 1973

In the postwar period oil prices recorded a stability trend for two and a half decades, reflected by a light fluctuation between the \$ 2.5/barrel and \$ 3/barrel (\$ 17-19 in constant dollars 2010), the latter being almost unchanged in the period 1960-1970. A turning point in the oil market is the establishment of OPEC (considered an international cartel of oil exporters representing resource-rich and developing states) in 1960 with five founding members - Iran, Iraq, Kuwait, Saudi Arabia and Venezuela, to which were added in 1971 another 6 states - Qatar, Indonesia, Libya, UAE, Nigeria and Algeria. In 1972 oil price was \$ 3.5/barrel, but after the Arab-Israeli war in October 1973 and the oil embargo that followed oil price reached \$ 12/barrel at the end of 1974. In the period from 1974 to 1978 crude oil price fluctuated between \$ 12.5 and \$ 14.5 per barrel. Iranian-Iraqi War began in September 1980 and it decreased production of both countries with 6.5 million barrels/day representing less than 10% of world production, which led to an increase in the price of a oil barrel from \$ 14 in 1979 to \$ 35 in 1981 (Phillips Kery, 2014).

The two oil shocks led to two strong economic recessions of the global economy, the temporary drop in oil consumption, improvement of energy efficiency and to an industrial restructuring process in the developed countries, they contributed to hyperinflation and stagflation, and also to the increase of oil production/supply outside OPEC. Between 1982 and 1985 OPEC attempted to stabilize prices by relatively smaller production quotas set for its members. Stimulated by high prices the non-OPEC oil production increased by 6 million barrels/day between 1980 and 1986. Decline in oil demand and increased production outside OPEC exerted enormous pressure on OPEC members, Saudi Arabia playing a role of swing (equilibrium) producer by reducing its production, but in August 1985 it gave up to this role and began to increase its production. As such oil prices collapsed in mid-1986 under \$ 10/barrel. Prices fluctuated at around \$ 20/barrel from 1987 to 2000, with a temporarily sharp increase during the Persian Gulf War from 1990/1991. The increase of world consumption by 6.2 million barrels/day in the period from 1990 to 1997 coupled with the decline of Russian production by 5 million barrels/day caused the balancing of supply/demand and opened the way to a price recovery. From almost \$ 30/barrel in 2001 oil prices increased to more than \$ 100/barrel (\$ 120) in 2008, with a peak level of \$ 145.29 for WTI at NYMEX on July, 3, 2008, but due to economic crisis which started in the fourth quarter of 2008 they fell temporarily below \$ 40 in 2009 but recovered in 2010-2012 period to more than \$ 100/barrel due to a strong increase of oil consumption in emerging economies, mainly in China (Phillips Kery, 2014).

A part of price increases was caused by intense speculations in the future markets where brokers, dealers and hedging funds enhanced their presence perhaps due to the temporary recoil of the securities markets as a result of financial crisis. The number of future contracts for crude oil at NYMEX increased tremendously in the first decade of the new millennium much more than the growth of real oil consumption. The same phenomenon occurred at the International

Petroleum Exchange (London) with Brent oil where market manipulation was sometimes particularly exaggerated. Before 2010 the price of NYMEX crude oil was very close to the price of Brent oil with a small premium, but since 2011 IPE (Brent) and NYMEX (WTI) prices have strongly diverged and WTI oil at Cushing, Oklahoma was sold below Brent oil and other crude oils. The price of WTI oil at Cushing may be not considered a representative world oil price but more an American representative oil price and the explanation is linked to the high level of oil stocks existing at Cushing (WTRG Economics, 2014).

The fundamental factor influencing the trend of oil prices was the demand/supply balance, the evolution of demand reflecting the economic cycle while the supply situation was determined by OPEC decisions to limit or restrict the production, by the strong development of production in countries outside OPEC, by the inventory policy of both oil producers and refiners. The major oil producing areas in the world in 2013 are presented in the Table 1. The first 3 producers in the world in the same year were: Russia with 10,053,800 barrels/day (13.8% of world production), Saudi Arabia with 9,693,200 barrels/day (13.09 of world production) and USA with 7,441,200 barrels/day (12.23% of world production) (Wikipedia, April, 2014).

Table 1. Oil production by area in 2013

Area	Production (thousand barrels per day and %)
World Total	86,808 100
Middle East	28,358 32.7
Eurasia	17,281 19.9
North America	16,826 19.4
Africa	8,818 10.1
Asia Pacific	8,232 9.5
South America	7,293 8.4

Source: BP Statistical Review of World Energy, 2014

In the Table 2 one can see the level of oil consumption in the major consuming areas and in major countries in the year 2013.

Table 2. Oil consumption in major areas and countries

Area, country	Consumption (mil.m.t.)
World Total	4566.55
North America	1164.6
- USA	944.3
- Canada	119.2
South&Central America	338.7
- Brazil	148.6
Europe&Eurasia	932.2
- Germany	119.1
- France	84.1
- Italy	65.4
- United Kingdom	75.1

Table 2 (cont.)

- Spain	60.0
- Russia	165.6
Middle East	426.3
- Saudi Arabia	153.7
- Iran	100.1
Africa	181.2
Asia&Pacific	1523.5
- China	537.8
- Japan	227.5
- India	186.3
- South Korea	123.0

Source: BP Statistical Review of World Energy, June 2014

Sharp Decline in Oil Prices in the Second Half of 2014

From 2010 until mid-2014 world oil prices had been stable fluctuating around \$110 a barrel, but since June up to January 2015 they have more than halved. On January, 8, 2015 the price of IPE Brent attained \$ 50.96/barrel while the price of NYMEX light sweet crude was \$ 48.79/barrel. There are two major causes for the dramatic decrease of oil prices in the second part of 2014. The first one is the emergence of an oversupply of 2 million barrels/day mainly due to the shale oil boom in USA and to production increase in some OPEC countries, like Iraq, Iran, Libya, Venezuela and also in Russia. The second cause is the stagnation of Western economies facing the perverse effects of financial and economic crisis and also the effects of external debt crisis, only USA and Great Britain being able to record a feeble economic growth while Eurozone countries and Japan were not able to get out of liquidity trap, austerity policy and deflation impact. An economic slowdown was also visible in China in 2014.

For Habib al Mulla, chairman of a law firm, OPEC must cut the supply when the oil price falls, but OPEC has not done this at the end of 2014 and blamed more the speculations in the market and less the low demand of developed countries. Saudi Arabia, the world's largest exporter and the second largest producer, was defending its market share by cutting prices rather than its production share and one explanation for pushing prices down would be hitting its major regional rival, Iran, who needs an oil price over \$130/barrel in order to finance its growing economy. At its last meeting on November, 27, 2014 OPEC could not reach an agreement for reducing the production ceiling set previously at 30 million barrels/day due to opposition of Saudi Arabia and other states like Kuwait and UAE (which have currency reserves more than \$1000 billion) despite the request coming from Venezuela, Libya and other states. OPEC should have reduced the production ceiling by 1.5 million barrels/day but it gave up to its swing role on oil international market, leaving the oil prices at the mercy of demand/supply balance (Prisecaru Petre, 2014).

Another consequence of the oil price reduction is the decrease of Canadian, Norwegian and Russian currencies and also stock exchange quotations for oil companies. Only the consumers of petroleum products have registered important savings both motorists and industrial consumers, farmers, households. A stronger economic recovery process in USA, EU and Asia, stimulated by low energy prices, may contribute to the rise of oil consumption and to recovery of oil prices.

But on medium term it is difficult to predict such a process due to the fact that one can see a crisis of capitalist system overlapped over a crisis of growth due to insufficient financial and natural resources. OPEC will meet again on June 5, 2015, but until then it is estimated the persistence of oil oversupply and the continuation of price decline in 2015.

While Russia's production averaged 10.58 million barrels/day in 2014, a post-Soviet record, oil production of USA has strongly increased in the last years, mainly due to the use of hydraulic fracturing or fracking in shale rock deposits, from an average of 5.0 million barrels/day in 2008 to an average of 7.4 million in 2014 (8 million in July and 9 million in November) and is expected to average 8.5 million in 2015 and 9.3 million in 2016, according to the EIA, the analytical body of the US Department of Energy (Koch Wendy, 2014). Russian output has increased even after U.S. and EU imposed economic and financial sanctions last year in response to Russia's position in relation to Ukraine. Another contributor to oil oversupply in Bloomberg's opinion would be Iraq which exported 2.94 million barrels/day in December 2014 (Andrianova Anna&Smith Grant, 2015) and plans to export 3.3 million barrels/day in January 2015, the greatest since the 1980s, and representing the second largest producer in OPEC. In December 2014 Iraqi federal government reached an agreement with the Kurdistan Regional Government, which allows the oil export by pipe through Turkey (550,000 barrels/day) to Ceyhan port. According to a recent Morgan Stanley report increasing supplies from some producing countries, like Russia and Iraq, added to the global glut that drove prices almost 50% lower in 2014 (Cho Sharon, 2015) although it is obvious that USA increased its oil production at the fastest rate in the last 5 years. As a matter of fact disruptions in the oil supply of the Middle East and African countries, like Iraq, Syria, Iran, Libya, Nigeria, over the last five years, have been counterbalanced by the growth of supply in the USA where shale oil production matched the increase in domestic demand and strongly diminished the level of oil imports.

The Prospects for Oil Prices in 2015

In November 2014 Stratfor (a geopolitical intelligence firm that provides strategic analysis and forecasting) published a report or a short analysis on geopolitical consequences of lower oil prices, in which it states that oil supplies will stay high as oil and gas production (from shale) in North America will increase while OPEC countries will not be able to significantly cut production. On the short term, the economic slowdown in China and stagnation of Eurozone economy will limit the potential for growth in oil demand. Stratfor believes that oil is the most geopolitically important commodity in the world and structural changes in oil markets that may occur in the future could have an important impact on world economy and may create winners and losers among the producers and consumers. Winners would be the major importing and consuming countries which hardly try to emerge from financial and debt crises and to resume a robust and sustainable economic growth with cheaper and cleaner energy resources. Losers would be the major oil producers which have developed their economies based on high oil prices and revenues that are vital for their national budgets and low oil prices will cause the reduction of their spendings and the limitation of their development programs.

Although U.S. Energy Information Administration predicted a higher US oil production for 2015 and 2016, lately it has consistently underestimated production growth from tight or shale rocks (Stratfor, 2014). While OPEC countries like United Arab Emirates, Kuwait and Saudi Arabia have enough flexibility for cutting the oil production other countries like Libya, Algeria, Iraq, Iran, Nigeria, Venezuela, Russia need to maximize the oil output and have higher export prices for supporting their budgets and their economic and social programs.

The rapid and sudden collapse of oil prices in less than 2 months (November and December 2014) was not foreseen by analysts, firms, institutions and was a major surprise to most analysts of oil market and practically denied any price forecast for 2015. In the graph no.1 one may see

how much the oil prices declined from June 2014 to January 2015 and especially the collapse from the last 2 months of 2014.

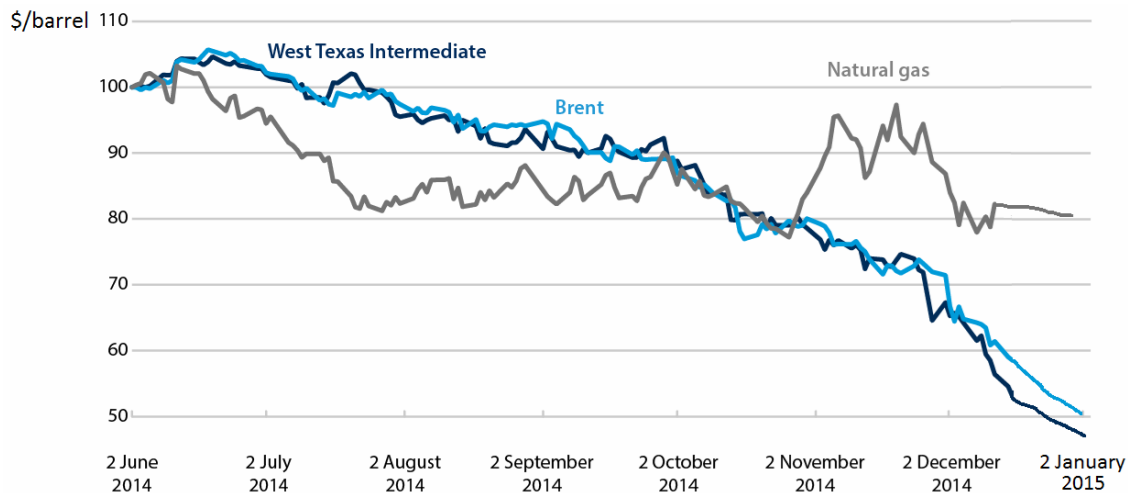


Fig. 1. Evolution of oil and gas prices from June 2014 to January 2015

Source: Bloomberg, 2014-2015

Under the present difficult circumstances it is somewhat risky to perform any short- and medium-term price forecast, and the situation remains extremely fluid and unpredictable on oil market. Quite recently Saudi Minister of Petroleum and Mineral Resources Ali Al-Naimi said in an interview with the Middle East Economic Survey (MEES) that OPEC will not cut oil production even if the price drops to \$ 20/barrel and it is unfair to expect from OPEC to cut oil output if producers outside organization do not. Ali Al-Naimi said that any level of oil price is irrelevant, maybe due to the fact that production costs are very low in Saudi Arabia and other Gulf states (several dollars per barrel) while in USA production costs (for conventional oil) can be three or four times higher than in the Middle East. For a highly efficient producer like Saudi Arabia it is more important to preserve its market share than to reduce output as it may afford a strong decrease of profit margin and also of its oil revenues. For Ali Al-Naimi it is unfair for OPEC to reduce output because it is not pumping most of the world's oil, but only less than 40 percent of global output.

The conclusions of recent Morgan Stanley report are not optimistic, on the contrary the oil production could increase in 2015 in Western Africa, Latin America, USA, Canada, Russia, Iraq, Iran could rise its deliveries by 500,000 barrels/day if Western sanctions will be lifted. As concerns shale oil production a recent report of Oxford Analytica (from December 2014) shows that global oil oversupply may have serious implications for US shale production. It is mentioned the opinion of OPEC secretary general Abdalla El-Badri who believes that almost half of US shale production is vulnerable to low oil prices (below \$ 85 /barrel), which is very questionable as shale oil has higher costs than conventional crude oil, but costs vary a lot depending on producers and extraction conditions. Even if prices are very low, some companies with relatively low levels of debt, high quality assets and low costs may continue to produce, and may even increase production if efficiency improves to a large extent (Oxford Analytica, 2014).

What happens if oil prices will fall below \$ 40/barrel it is hard to evaluate but it is obvious that many shale oil producers from USA will be forced to stop the output. The oil off-shore producers may also feel the impact of very low oil prices as their costs (and risks too) are very high.

Stratfor Intelligence thinks that on short term one cannot foresee a bullish oil market on the demand side because North American oil consumption has been structurally in decline since the mid 2000s due to electric vehicles, natural gas (mainly shale gas) and other green energies which are viable alternatives to crude oil and will inevitably diminish the share of oil market on medium and long term. Although USA is seen now as the main engine of world economy after 15 years when this role was played by China and other emerging economies, the recovery of American economy at the highest rate compared to other developed countries will not notably affect the rate of oil domestic consumption and the level of world oil consumption.

The behavior of European oil market is quite the same as in North America, but in EU the structural decline is accompanied by a slow economic growth and some Eurozone countries with larger or smaller developed economies are passing through very difficult financial conditions and economic stagnation due to the recent crisis and austerity policy. China's economy is facing a descending trend after some years of investment and construction boom due to the decline of housing markets and related industries although the central government tries to restructure the economy and to provide some incentives for maintaining an accelerated economic development, such as large-scale public infrastructure projects. That is why China's demand for oil could remain relatively strong recording only a moderate increase estimated at 400,000 barrels/day. As global oil supplies do not seem to strongly decline in the coming months one may draw the logical conclusion that oil prices will fluctuate around \$ 50/barrel, unless OPEC will change its opinion on production cuts.

Conclusions

1. After four and half years of high oil prices in the second half of 2014 oil prices almost halved due to oversupply existing on international market as a result of recent production growth in countries like Russia, Iraq, Libya and mainly in USA where shale oil production has strongly increased in the last 5 years.
2. Another factor affecting the trend of oil prices was the decline in oil demand covering the 2001-2012 period in some important developed countries, like Eurozone states and Japan, followed by stagnation of European economies and a slowdown of BRICS economies in 2014, first of all of Chinese economy.
3. An important contribution to large oil price fluctuations was brought by intense speculations in the future markets where the number of future contracts for crude oil at NYMEX (WTI) and at the International Petroleum Exchange (Brent) appreciably increased in the first decade of the new millennium much more than the growth of real oil consumption.
4. Due to the increase of natural gas consumption (also of shale gas) and to the proliferation of green energies oil consumption has been negatively affected in the last 15 years and will also be affected in the next years.
5. If OPEC does not intend to cut its supplies and shale oil producers and other non OPEC producers will maintain a high level of production oil prices may continue their downward trend under the level of \$ 50/barrel with important implications upon supply/demand balance.

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