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OIL MARKET STRUCTURE AND PRICING

CRUDE OIL AND OIL PRODUCTS MARKETING AND PRICING: WHAT IS THE PRICE OF CRUDE OIL?

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Abstract. The development of oil market is making it inevitable to dig deep into nature of price formation. In contrast to pure seller and buyer market relationships, price is now formed on trading floors where speculators are pushing it up or artificially reducing price of crude oil when 'bears' take advantage of market panic. This paper shall be arguing that there is need for strong regulatory body to follow market prices to ensure that actual suppliers and final receivers are not suffering from speculative activities.

Keywords: Crude oil, trading, paper market

1. Introduction

One of the fundamental issues of today's global market is the crude oil industry. It is reported almost everyday in the news that rising or falling of price of crude oil as well as oil products is directly affecting consumer market, economic interests of the countries and most importantly the price hike is putting pressure on inflation targets of the governments, banks and investment funds. So, it might be suggested in this instance that price movement for this energy resource has tremendous impact on our everyday lives. In this regard, there might be put question concerning the nature of the price of crude oil. This paper shall be investigating the character of crude oil trading market and addressing the issues of fair reflection of crude oil price as entire economies are primarily depend on this price. In the beginning, there will be presented little introduction into the world oil market which will be followed by identification of market structure. It would be highlighted that economies of countries depend on the fact of final crude oil price. It shall be argued that the availability of recourses as well as the level of their consumption are the major factors that are directing economies of different countries.

In the second part of the article it shall be pointed out that the pricing mechanism of crude oil on spot basis. It shall be defined that even though the price of this commodity should be linked to spot sale, 95 per cent of the market depends on paper trading which is ballooning the price most of the time. It would be drawn attention to the fact that the pricing of the crude oil is not formed on actual buyer seller basis, but, depending on market volatility. It is actually the result of paper market where in fact no actual crude oil is bought or sold. There will be underlined several cases where rise of oil on paper trading had been driving gasoline and gasoil prices up whereas there was no even close connection to actual crude oil price and refining yields.

In the conclusion part, it shall be argued that there must be made clear separation between trading activity characterized by high volatility in major stock exchanges and actual crude oil sale where physical delivery is taking place. Considering long-term negative consequences which governments and business may suffer, there is need for setting up mechanism of crude oil price settlement so that to ensure short and long-term stability for growth of countries both exporting and importing crude oil and oil products.

2. History of Crude Oil Prices

Economic history of the last half century should always be referring to crude oil market since the price fluctuation of oil and oil products is one of the major elements forming the economies of different countries those that are agricultural or industrial. Furthermore, it is also worth pointing out that war and political uprisings in different oil exporting countries are among many causes which have always had effect on price of crude oil. Certainly, it must be underlined and studied separately the role of OPEC (Organization of the Petroleum Exporting Countries). The price of crude has been going up steadily since mid 1970s from almost 10 US dollars per barrel till 140 USD per barrel in 2008. In other words, this commodity has been gaining value gradually in the last 40 years whereas this change in price has been putting pressure to all industries as production and economic growth of the countries relies on cost/gain of production at the end of the day. According to the information from US Energy information administration (2011), the production of oil today is around 86 million barrels whereas the giant share of this crude is going to refineries in the US and China as these two are leading economic countries, certainly excluding the EU as the discussion is only about single countries. It must be emphasized in this case that existing demand and supply in the market is around 86,6 million barrels per day. Certainly any changes in this balance shall have immediate effect on the market, but, the main aim of this paper is to demonstrate that this balance can not be changed as significant as transformation of price from 140 USD per one barrel till 30 USD per barrel as it was during recent financial crisis (BBC, 2008). One of the traders working on trading floor for the last 16 years admit that the market has changed and everything has become electronic whilst during his trading period, in the first week of work he lost voice. As oil trader from NYMEX he highlights that liquidity is gone from the market, there is no more transparency whilst it is black boxes directing market from ‘bulls’ to ‘bears’ and vise verse (Rushe, 2011).

The balance of economic power in the world has been changing whereas political and economic battle of two giant states the US and USSR is now replaced with financial and economic competition of the US against rapidly growing China. It is therefore not surprising that these two countries are swallowing giant share of globally produced oil and oil products. It is reported that the US is consuming slightly more than 18 million barrels a day whilst China is almost twice less than that figure which is around 8 million barrels in a day. It is rather interesting fact and should be recognized that one of the most influential international organizations as International Energy Agency continues to rely on pure supply and demand in the market when making calculations. It is estimated by this organization that there is stead increase tendency in demand for oil by developing China. Thus, there is question in this instance if Chinese economy is more effective in energy consumption rather than the US, since Asian country has budget surplus against record shortage in the US. Apparently, this is very broad issue and there should much more detailed analysis. Nevertheless, it is worth underlining that while China is searching ways to curb inflation, the US on the contrary battling with budget deficit which in the long-term may have absolutely devastating consequences.

The development of oil business and certainly rise of other related industries has changed entire structure of the market as some events during short history radically turned not only crude oil market history itself but also entire economies of different countries. Although, this might be arguable view, however, the main event of last century in this industry was establishment of oil cartel OPEC. Whilst paper trading was not developed to the extent that it exists today rising price of this commodity during two oil crises was reflection of supply and demand rather than speculative activity. Definitely, radical step taken by Saudi Arabia in January 1973 to raise price of Arabian light crude from 5.04 USD to 11.65 USD demonstrated strong link of price formation with politics of crude oil supplying countries. This movement dragged down economic growth of different countries whereas GDP in many oil dependant countries dropped very significantly. Furthermore, such price hike had noteworthy impact on demand since it rose only by 1.5 per cent whereas this figure was almost 6 per cent a year ahead of price hike in the US (Parra, 2010).

So, historical development of oil industry demonstrated that price has been rising since 1973 due to political reasons at that time whilst further increase by more than 14 times was actually the result of strong speculative activities. The growing economic power of China and the US paved the way for market where the highest offer receives oil commodities. This new type of relationship has established those ‘traders’ who are gaining benefit by simple methodology of expansion network connection with people so that buy cheap crude from supplier and then sell it to refiner.

3. Speculative Traders' Market

Crude oil is major trading commodity in the world today. It is clearly defined by Edwards (2010) who are the major players in this oil and trading business. He is underlining that producers, refiners, marketers and consumers are those establishing policy in this industry. It is also remarkable that marketers, those are buying and selling crude oil and oil products are those driving force of the market. This issue worth deep analyzing as indeed price of crude oil is not defined between producers and final consumers, but, among many 'traders' who are buying and selling crude finally impacting on price of this commodity in different points of destinations.

Once oil trading has gone out of normal boundaries of relationships between producers and refiners, this has turned to be opportunity for gaining profit by trading virtual commodities. It is pointed out by O'sullivan (2009) that 99 per cent of trading in NYMEX is going via paper trading whereas only 1 per cent is ending with physical delivery of the crude oil. Along with futures trading in NYMEX one of the most popular way of making money is 'options' trading. According to the rules of 'put option' there is right, but not obligation to sell crude quantity at certain and indicated in the contract price. On the other hand, in the 'call option', the opposite is occurring when contractual party has the right but not obligation to buy crude at definite time and specified in the contract price. It is further pointed out by O'sullivan (2009) that there is growing concern among market players that price settlement mechanism working in the market today leading the market in wrong direction where physical delivery prices are no longer indicator in the market. O'sullivan (2009) is also underlining the fact that market in this instance should be regulated and directed sometimes by government bodies. In the meantime it is also significant fact that pure estimation of efficiency in this instance is the only element which should be reviewed before preparing cost/benefit analysis. It is important pointing out that oppose to NYMEX 'index of confidence', there is another one called 'fear index' and this conception has been developed by 'Chicago Board Options Exchange' with the purpose to recognize the point when market becomes volatile. Following this notion Moors (2011) based on example from oil producing country Uganda underlines that in this actually under developing country, crude oil prices settles at foreign exchanges where they have no connection whatsoever. Therefore, it was not financial crises which hit them by raising poverty, but, it was actually mismatch between actual prices of oil sold by them and those determined in London, New York and Tokyo. Another interesting aspect of paper trading is that it is linked with real physical market. It is the reflection of physical market, however, the cost of one barrel includes also speculative money which is just pushes prices up at the time when there is slight move on demand side. The principle to certain extent reminds gambling as anything bad moving on the table is reverting back the pocket and under this scenario BP shares fell after Mexico Gulf oil spill whereas shareholders just lost more than 3 million UK pounds because of their speculative involvement in crude oil price settlement (Pfeifer and Ward, 2010). There has been revealed information about daily trading activities and this has become known after report of Commodity Futures Trading Commission. It has been estimated that 95 per cent of crude oil futures trading occur on daily basis.

One of the trading features which are quite common today is about so called 'crack spread trading'. It means that traders are playing numbers between crude oil price and product prices (Edwards, 2010). Originally established futures market and future trading had the purpose of hedging to secure that producers shall have fixed income for production. Despite this initial purpose of futures trading, it has now turned out to be another speculative commodity leading prices higher. This argument was put forward by Douglas Steenland, chief executive of US airline Northwest. Moreover, another remarkable reality might be remembered from the period before financial crises when many experts were stressing that rising oil prices are not the result of fundamental factors of economics, rather it is just speculative price rise. One of these experts made headlines in 2008 when Fadel Gheit from Oppenheimer & Co indicated that even Chinese and Indian economic growth does not give any reason for price of crude to reach the level of 140 USD per one barrel. It is further argued that there is no single element in the market changed so significantly in one year that pushed the price so much high from 65 USD to 145 USD (O'sullivan, 2009).

Moors (2011) studies the price volatility of the crude oil market based on own experience on the one hand and referring to the works of other writers on the other. It is stressed in his book that there is strong price volatility in the market whilst it was quite abnormal that buyers were paying more than 140 USD per barrel in mid 2008. The issue of high prices for oil commodities came to the attention of the US government slightly earlier than financial crises occurred. The analysis is presented by Engdhal (2008) who is the associate of the Center for research on globalization, based on the report prepared by permanent subcommittee on investigations studying 'the role of market speculation in rising oil and gas prices: A need to put the cop back on the beat'. It is underlined that there are number of uneven conditions when trading commodities. For example, since January 2006 it was allowed to trade WTI futures contracts in London even though this oil is US origin. In the same way, however, it is not allowed to trade product futures contracts. Further analysis of the paper refers to the conclusion by senate committee, it is emphasized that big players of trading floor like Morgan Stanley and Goldman Sachs are artificially pushing the price higher when they have to sell earlier purchased papers. According to the estimations during June 2006 oil traded at price around 60 USD per barrel whereas 25 USD from this sum is actually the result of speculative trading activity (Edghal, 2008). At the same time, Meyer (2011) points out that there has not been found any illegal cases when there were made investigation of trading crude oil futures. In fact, US regulators managed to find only one manipulation incident when price rose by 40 US cents. There was made almost the same allegation to Netherlands based commodity trading firm whilst they were found guilty in pushing gasoline price high for 19 times during 11 days in March 2007.

Furthermore, it is quite interesting that Moors (2011) does not imply to search for new energy resources or government intervention or central banks participation in crude oil price settlement, he is rather suggesting to study the phenomenon of crude price changes in the frame of discussion so called 'Vega factor'. It is also referred in his analysis the mechanism which is used in NYMEX where 'confidence level' system in contrast to 'fear index' is applied determining current price and predicting future price. It is argued that despite mechanisms that might be applied by market participants and government bodies, this 'confidence and fear' indexes are providing direction for market speculators. It is pointed out that there is complex of issues settling crude oil prices and there would not be anyone to claim that price is moving due to one or another event which has already occurred or is expected to occur. The conclusion of his broad analysis stresses the fact that rise and fall of crude oil prices is not linked with existing supply and demand.

Thus, it might be concluded that 'trading' actually has tremendous impact on price (not on supply and demand in the first place) and it is formally legal whereas there is no any institute or mechanism which would ensure that supplier is selling and refiner is buying, subject to condition that parties would have alternatives. Following the discussion of actual crude oil sale and how physical market indeed changed during recent crises, it is argued that financial crisis in the US and worldwide was actually due lost balance between supply and demand in the US, it is also underlined that the major problem was actually the consumption of Americans (The Economist, 2011). Therefore, there is also necessity in the frame of this discussion to review changing tendency of US consumers they are creating true demand of the market.

4. Crude Oil Products Trading

One more element which should also be considered in the outline of this discussion is different pricing mechanisms applied in different countries for crude oil product commodities such as gasoline, gasoil or heating oil. Government's regulations in price settlement as well as subsidies which governments are usually implementing to support those who are mostly dependant on cheap petrol prices also affecting market. In this state of affairs, it might be examined excellent example where the mechanism of the tax system of some countries, especially it concerns North European states since they are implementing this policy. It is noticed that before industrial revolution in the UK it was applied the system where taxes must had been paid as a percentage of gross revenue and additionally tax on profit. However, after the beginning of production of crude oil in the North Sea the system of taxing changed quite significantly. It is remarkable and worth mentioning that today in the UK petrol tax is slightly more than 66 per cent of one litre of petrol. During the last Conservative government this tax hiked and reached this level whereas 10 years ago the situation was different. Even though the price of petrol at that time was around 54p per litre and tax revenue from this sale was 72 per cent. Nevertheless, current market condition and price of oil is forcing governments to raise price and therefore under the current system, the government is reconsidering price duty in every year's budget which is presented by the chancellor (Parra, 2010).

So, the government in this analysis is identified as one of the most important market player with authority and power to impact on aggregate demand. Those subsidies that had primary aim to make petroleum products available for consumers doubled between 2006 and 2008. Therefore, finances that were presumed for social services spending or for other purposes were redirected to cover high cost of gasoline which at the end of the day is the outcome of traders' intervention into the market.

5. Conclusion

The oil industry has passed through very controversial history during the last several decades. The development of oil business showed that energy industries of all countries rely on oil production and oil products consumption since the last demonstrate economic growth. It has been argued that connection between actual suppliers and receivers of the crude oil in the market has been lost. The opportunities of middle people, those working among producers and refiners, have been extended widely recently whereas trading of 'futures', 'options' and other paper trading instruments today has established market where the price of crude is in hand of people who are buying virtual commodity cheap and then selling it at thigh price to gain profit. However, this speculative activities leading at the end to high prices of oil which hit consumers whilst low price is reverting negative back to producers. Therefore, there is clear need for establishment of organization regulating those prices in the market which are agreed between actual supplier and true receiver. There must be eliminated condition when these two players of the market are hurt by high or low prices of oil set up by virtual commodity traders in major stock exchanges.

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