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ОГЛЯД СВІТОВОГО РИНКУ НАФТИ

У 2011 році на світовий ринок нафти негативно вплинули події, які загрожували безпеці в деяких країнах та сформували нинішній стан світової економіки. Як ми всі знаємо, сьогоднішній стан ринку нафти є результатом перевороту в кількох арабських країнах, політичні установи яких зазнали радикальних змін, тоді як розвинені країни пережили швидке зростання боргу Європи і США. Ці фактори стали причиною щорічного подорожчання цін на нафту, які збільшилися на 40%. Найвища за всю історію середня ціна на нафту марки Brent, досягла 111 доларів США за барель. Дані події також зумовили скорочення різниці між так званою легкою та важкою нафтою.

Ключові слова: *світовий ринок нафти, світового попиту на нафту, сира нафта та ціни на похідну продукцію, нафтохімічна промисловість.*

INTRODUCTION

Over the year 2011, once again the global oil market has been significantly scarred by events that shaped the world economy as well as the political and security situation. The crude oil and petroleum products market was significantly influenced by factors that, at the beginning of 2011, could not have been foreseen.

This related particularly to changes of regime in several Arab countries as well as a sharp escalation of debt problems in some advanced European economies and in the USA.

The above-mentioned events generated growth in oil demand by rapidly growing developing countries. In addition, the extremely loose monetary policies of major central banks, reflected in low key currency interest rates, resulted in Brent crude oil prices increasing year-on-year by nearly 40% to the level of USD 111/bbl, which, in turn, affected the growth of petroleum end-product prices.

1 GLOBAL OVERVIEW OF OIL DEMAND

After two years of relatively flat growth – up by 0.7 mb/d in 2011 and an anticipated 0.8 mb/d in 2012 – the predicted 1.0 mb/d growth rate for 2013 is unmistakably an acceleration, albeit a very modest one. Underpinning the predicted up tick in growth in 2013 is a combination of the strengthening economic backdrop and mildly lower oil prices, as incorporated in the prevailing rolling three-month average futures strip. Economic growth of around 3.8% is assumed for 2013, half a percentage point up on the downgraded 2012 growth rate of 3.3% (see table 1).¹

The forward price curve, meanwhile, assumes an additional real price contraction of over 7% in 2013, marginally supporting demand.

Non-OECD oil demand is expected to rise above that for the OECD in 2013, with respective average consumption rates of 45.7 mb/d and 45.1 mb/d anticipated. We envisage the non-OECD's ascendancy to be confirmed in 2Q13, and to be sustained thereafter. Of the main product categories, gasoil led this reversal, as non-OECD gasoil demand overtook its OECD counterpart in 2Q09. OECD consumption of gasoline, naphtha and jet/kerosene demand however remain ahead of that in the non-OECD; OECD gasoline demand forecast at 13.8 mb/d in 2013 is 4.9 mb/d above non-OECD consumption, while the respective differences for naphtha and jet/kerosene are forecast at 550 mb/d and 810 mb/d.

The outlook for oil demand in 2012 has been very slightly curtailed since last month, revised down by 15 kb/d to 89.89 mb/d. The reduction in the global growth estimate for 2012 has occurred despite higher base data, with the 2Q12 demand estimate now 245 kb/d higher than last month's report at 87.78 mb/d, and lower underlying economic projections (see Lower Economic Assumptions) proving decisive. Japan provided the majority of the base data revisions, with an additional 155 kb/d of consumption added to the 2Q12 estimate. Global oil demand growth in 2012 is thus forecast to remain relatively entrenched at around 0.8 mb/d or 0.9%. Non-OECD demand dominates from a growth perspective, up 1.2% or 1.2 mb/d, to 44.6 mb/d.

2 OVERVIEW OF CRUDE OIL AND PRODUCT PRICES

In recent years, the oil market has been characterized by rising, and at times, rapidly fluctuating price levels. In the last three months alone, Brent crude oil prices have fluctuated in a wide range from \$125/bbl to \$89/bbl (see figure 2). Higher

volatility will certainly impact both consumers and producers.

Table 1 Global Oil Demand (million barrels per day), in years 2011–2013

	1Q11	2Q11	3Q11	4Q11	2011	1Q12	2Q12	3Q12	4Q12	2012	1Q13	2Q13	3Q13	4Q13	2013
Africa	3.4	3.4	3.2	3.4	3.3	3.5	3.5	3.4	3.5	3.4	3.5	3.5	3.5	3.5	3.5
Americas	30.2	29.9	30.4	30.1	30.2	29.6	29.9	30.5	30.3	30.1	29.8	30.0	30.6	30.5	30.3
Asia/Pacific	28.7	27.4	27.5	29.0	28.1	29.6	28.3	28.2	29.6	29.0	30.2	28.9	28.6	30.0	29.4
Europe	14.9	14.9	15.5	14.9	15.0	14.4	14.4	15.0	14.7	14.6	14.3	14.3	15.0	14.7	14.6
FSU	4.3	4.5	4.7	4.7	4.5	4.6	4.7	4.8	4.8	4.7	4.7	4.8	4.9	4.9	4.8
Middle East	7.5	7.9	8.3	7.8	7.9	7.7	8.1	8.5	8.0	8.1	7.9	8.3	8.7	8.2	8.3
World	89.0	87.9	89.6	89.9	89.1	89.4	88.8	90.4	90.9	89.9	90.5	89.9	91.3	91.8	90.9
Annual Chg (%)	2.4	0.4	0.5	0.1	0.8	0.4	1.0	1.0	1.2	0.9	1.2	1.2	1.0	0.9	1.1
Annual Chg (mb/d)	2.1	0.3	0.4	0.1	0.7	0.3	0.9	0.9	1.1	0.8	1.1	1.1	0.9	0.8	1.0
Changes from last OMR (mb/d)	-0.05	0.02	0.02	0.02	0.00	-0.12	0.24	-0.09	-0.10	-0.02					

Source: International Energy Agency – Oil Market Report. 2012 [online] 2012. [cit. 2012-08-08] Available on the Internet: <http://omrpublic.iea.org/currentissues/full.pdf>

Oil exporting countries can be negatively affected by the impacts of high volatility in oil prices on fiscal revenues, investment and confidence in the economy. Higher volatility can have negative impacts on inflation and growth prospects in oil importing countries as well. In order to reduce volatility in oil markets, the G20 experts group emphasised the importance of improving data transparency in both financial and physical markets as well as phasing out of inefficient fossil fuel subsidies. They also urged the use of country-specific monetary and fiscal responses to support inclusive growth in order to mitigate the impacts of excessive price volatility.

However, it is important to note that volatility itself is not the main problem. The main challenge is the elevated price levels combined with higher volatility. Oil prices, like those of many other commodities, are inherently volatile and volatility itself varies over time. Due to inelastic supply and demand curves, at least in the short run, any shock to demand and supply will lead to large changes in oil prices.

For example, annualized average volatility in January 2009 peaked at 92%, followed by a rapid decline to relatively low levels. On the other hand, volatility reached its historical peak level (116% annually) in January 1991 (see figure 1). Up until mid-March 2012, average annualized volatility in 2012 was relatively stable at around 23%. It is important to note that prices in this period increased from \$110/bbl to \$128/bbl. Volatility in Brent prices increased especially in June 2012, reaching more than 34% at a time when the price level declined by more than \$15/bbl.

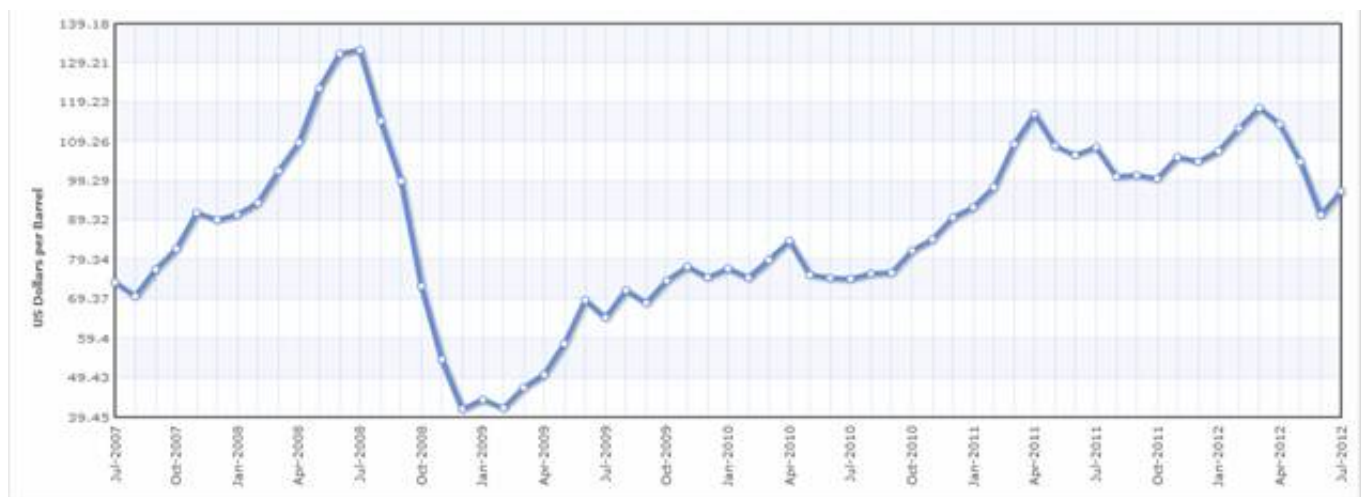


Figure 1 Average of three spot Crude Oil (petroleum) prices; Dated Brent, West Texas Intermediate, and the Dubai Fateh (USD/ bbl), in years 2007-2012

Source: Crude Oil (petroleum) Monthly Price. 2012. [online] 2012. [cit. 2012-08-08] Available on the Internet: <http://www.indexmundi.com/commodities/?commodity=crude-oil&months=60>

In this year, price differences between light and heavy oil started to decrease significantly and towards year-end the usually very positive price difference reduced significantly or even changed to negative at times. Hence, in 2011 the oil refining industry was not an attractive business to be in, as growth in product stock prices and their price differences (crack spreads) against oil were insufficient to cover the rising prices of feedstock as well as energy and other cost factors.

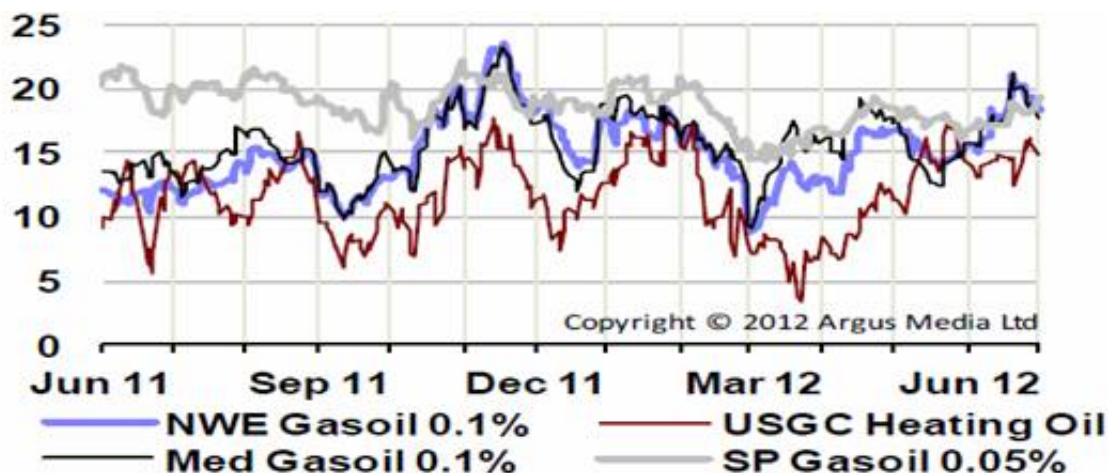


Figure 2 Crack to Benchmark Crudes of Gasoil/Heating Oil (USD/bbl)

Source: International Energy Agency – Oil Market Report. 2012. [online] 2012. [cit. 2012-08-08] Available on the Internet: <http://omrpublic.iea.org/currentissues/full.pdf>

Oil futures markets were exceptionally volatile over June and into early July 2012, with a wide array of conflicting drivers exerting pressure on prices. Benchmark crudes plummeted throughout most of June, touching 18-month lows before reversing course towards the end of the month and into early July.

Brent crude posted the sharpest swings, with closing prices in a wide \$11.50/bbl band before briefly rebounding to above the \$100/bbl threshold. WTI traded in a narrower \$10/bbl range and was last trading at the higher end of the scale near \$85/bbl (see figure 3).

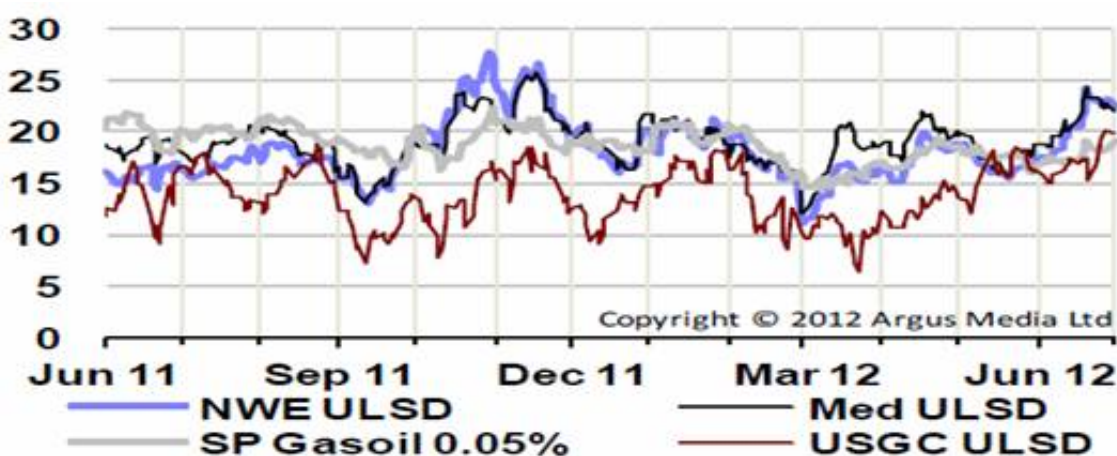


Figure 3 Crack to Benchmark Crudes of Diesel Fuel (USD/bbl)

Source: International Energy Agency – Oil Market Report. 2012. [online] 2012. [cit. 2012-08-08] Available on the Internet: <http://omrpublic.iea.org/currentissues/full.pdf>

Oil markets trended lower through most of June 2012 in tandem with worsening euro zone woes and against the backdrop of rising global inventory. Swelling crude supplies in Europe propelled Brent prices to 18-month lows and triggered a brief reversal in the prevailing backwardated price structure.

Chronic unplanned outages in the North Sea and Libya have supported prompt prices for more than a year. However, ample crude now on offer from Africa and the Middle East weighed on both European and Asian markets. Plentiful supplies from West Africa, Libya, Iraq and Saudi Arabia, continued to add pressure on the front end of the

forward curve for Brent.

This pattern, volatility increasing as oil prices decline and volatility declining as oil prices increase, is consistent with the empirical evidence in the stock market. The increase in volatility when oil prices falls can be explained by the fact that falling oil prices often accompany deteriorating global activity and resulting uncertainties for global oil demand, such as the collapse in demand observed immediately after the demise of Lehman Brothers in September 2008.

Although policy makers and market participants generally point to peak oil prices in 2008, the average Brent oil price in 2008 was \$96.94/bbl, only peaking at \$144/bbl on 3 July 2008. Moreover, oil prices were above the \$100 threshold level on only 128 days during 2008. Average Brent oil prices registered \$61/bbl in post-September 2008 when the worst financial crisis since the Great Depression hit the global economy.



Figure 4 Crude Futures – forward spreads (USD/bbl)

Source: International Energy Agency – Oil Market Report. 2012. [online] 2012. [cit. 2012-08-08] Available on the Internet: <http://omrpublic.iea.org/currentissues/full.pdf>

Given the fragile state of the global economic recovery, the impact of high oil prices on global growth, especially in oil importing countries, is potentially more severe now than in 2008. High oil prices already threaten to aggravate global economic slowdown by widening global imbalances, reducing household and business income, and boosting inflation.

SUMMARY

Several refineries in OECD countries this year continued to reduce oil processing or even closed down, since petroleum product production was consistently unprofitable. There was adverse development in the oil industry's petrochemicals sector, where end-prices of plastics and chemicals failed to keep pace with the growing input prices of fossil, liquid, and gaseous raw materials made from expensive crude oil. This resulted in an extreme reduction in integrated benchmark petrochemicals margins which became totally inadequate to cover energy costs, other operating costs and necessary renewal investment.

The European petrochemicals industry thus found itself in a fairly severe depression with a number of plants, like a number of refineries, announcing reduction in production or closure of entire operations until demand and consequently prices of petrochemicals products would not increase, at least to the level of minimum profitability.

This is not to say that volatility should have a second order of importance when considering market dynamics and oil prices. Prices and volatility cannot be separated from each other. However, persistently higher oil prices have been increasing the share of GDP spent on oil imports. This is especially the case in oil-importing developing countries because their economies are often more dependent on imported oil and more energy-intensive and because their energy use in a given sector is sometimes less efficient than the global average. Therefore, policies to deal with high oil prices should arguably be given priority over policies dealing with volatility. There are already many tools to combat oil price volatility, including not least at a micro level the use of commodity derivatives markets to hedge against price risk. Addressing elevated price levels may be a harder nut to crack however, unless price distortions in consumer markets on the one hand, and uncertainties in the upstream investment environment on the other are addressed, allowing markets to more readily self-adjust to international pricing signals.

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