UPEI

Union Pétrolière Européenne Indépendante
Union of European Petroleum Independents

UPEI exposé

EU Energy Supply with Petroleum Products

Current Challenges and the Role of the Inter-Regional Products Market

Introduction

UPEI, the umbrella organisation of national associations of the independent European oil traders and importers, is concerned with the ongoing discussion on security of supply. Apart from the development and increasing use of renewable energies we are convinced that the European market for fossil fuels needs a balance of domestically refined products as well as imports. The product slate of the European Refinery Park is not in synchronisation with product demand. The EU is long in gasoline and short in middle distillates, especially in diesel. Thus the Union is dependent on a well functioning international product trade to balance its supply and demand from domestically refined products. The EU's own crude production is undisputably in decline and supply dependence is growing. What is needed is a market based mix of domestic refining and product imports. This will increase security of supply by multiplying the supply sources and supply routes and yield the most economical and thus most competitive mix for Europe's consumers and industry.

In our understanding the energy supply of the EU must meet the following criteria:

- Security of supply,
- Competitiveness, i.e. delivering optimal prices to the consumers,
- Level playing fields for all market participants,
- Meeting the requirements of the internal market, i.e. fair trading, open market and competition.

Consumption and Trends

Today, petroleum products are still the main source of energy consumption on a worldwide scale as well as for the EU. Looking at EU gross inland consumption by fuel in 2009, oil is still the most used energy source with a share of 36.6%[1]. Despite differences in consumption trends between products the importance of fossil fuels in general persists. This applies first and foremost to the transport sector, where alternative energy sources are rare and expensive. Making up 32.6%[2] of final energy consumption in the EU the transport sector is mostly supplied with fossil fuels. Especially road transport, which already covers 81.9%[3] of the final energy consumption in transport, shows certain growth potential due to increasing commercial activities. Interestingly enough, there is a report in progress by a European Commission Expert Group of DG MOVE, dealing with a long term strategy and possible actions with regard to future of transport fuels.

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Sourcing of Petroleum Products

Consumption in the EU is covered on the one hand by domestic production and on the other hand by imports of products. Because product yields of refineries can only be influenced limitedly, imports provide a tool to flatten demand and thus 'balance the books'. Since Europe's oil products market is part of the global market, inter-regional trade provides flexibility as well as economic optimisation in supplies. Temporary market-balancing is a way of securing demand is met – at affordable prices for consumers. Simultaneously, trade in products can be regarded as a buffer during refinery investment cycles since adapting or upgrading of facilities takes time.

» Inter-regional trade provides flexibility as well as economic optimisation in supplies.

Increasing Gasoline/Diesel Imbalance

Because of inherent technical limitations of a refinery and yields of crude oils, regional refining alone cannot address fluctuating demand patterns immediately respectively completely. In this regard the EU currently faces the challenge of a growing imbalance of gasoline and diesel. Opposite to an over-production of gasoline there is an increasing deficit of diesel. Between 2003 and 2008, European consumption of diesel has already increased by around 20%[4]. For 2009 (still provisional) figures for EU deliveries indicate that motor fuel sales in diesel have been twice as much as petrol.[5] Sometimes it is even suggested that in 2020, diesel sales could be three times as much as petrol. Comparing EU gasoline inland deliveries of 2009[6] to deliveries of diesel as well as gasoil, one can see that the sales of both middle distillates are already approx. 2.8 times that of gasoline. Taking as well into account jet/kerosene as the third product within the category of middle distillates, the ratio reaches 1 to 3.4. For a refiner, investing in bottom upgrading capacities would be the best choice to adapt his facility to demand, but even a Hydrocracker combined with a coking unit would struggle to meet demand patterns. In addition to it, even if one opted for a deep conversion refinery, the lack of naphta and residual fuel oil yields would create other supply problems. So again, the significant balancing function of imports becomes clear looking at constraints of domestic production.

» In 2020, diesel sales could be three times as much as petrol.

Current Developments on the Refining Sector

Besides the gasoline/diesel dilemma, other factors like global competition presently put economic pressure on domestic refining. This is probably why there are great changes underway within the European refining industry. Several changes of ownership in facilities between 2000 and 2009 might be one hint. Looking back, however, one realises that some sort of struggling of the sector is not new and the development of profitability is generally a cyclical one. Fluctuations of margins appear time and again. Assessing the results it is one thing to compare low margins of 2009 with high margins of the period 2002-2008. The other thing is to keep in mind that the latter are really outstanding results in the sense of historical peaks. When evaluating margins, also the impact of investment policies and timing of i.e. capacity reductions should not be underestimated.

» Fluctuations of margins appear time and again.

Looking into the future, securing profitability of refining during the next years will remain difficult, for sure. On the other hand refinery

[1] Eurostat, "Statistical Aspects of the Energy Economy in 2009", 2010
[2] Eurostat/EU Commission, "EU energy and transport in figures", 2010
[3] Eurostat/EU Commission, "EU energy and transport in figures", 2010
[4] EU Commission, "Europe's energy position. Markets and supply", 2009
[5] Compare i.e. MWV, Annual Report 2009
[6] Figures for calculations stem from Eurostat, "Statistical Aspects of the Oil Economy in 2009", 2010

competitiveness involves several factors. Size respectively scale of a refinery and its carbon footprint, which receives much attention in public discussions, are only two of them. Location factors, operability in the sense of mechanical reliability and safety as well as aspects of vertical integration (upstream, downstream, petrochemicals) enhance the competitive position of a refinery. The ability to make use of storage facilities and the organisation of retail outlets are further factors. In the end, it all boils down to more comprehensive structural adaptations in order to maintain profitability under changed economic conditions. Seen from a global perspective, the shift of refining capacity from OECD countries to non-OECD countries comes to some extent naturally.

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European refining capacity has made up one of the largest parts of world refining capacity for the last decades (approx. 18%[7)]), next to capacities of North America (23.3%[8)]). To maintain this position despite changes in consumption trends on home markets is unrealistic. Rationalisation and changes in production strategy seem unavoidable.

Security of Supply

Sometimes the shift of refining capacity to the Asian region and greenfield investments in large facilities like Jamnagar in India are seen as threats to security of supply. A closer look however reveals that a more distinctive view should be adopted. Since refined products markets have established on a global scale and quality standards are met by foreign suppliers, there are various possibilities for sourcing. The EU is a net importer most notably of middle distillates – gasoil, diesel and jet fuels. Russia is the main trade partner for gasoil and diesel providing 38.6%[9)] of total extra-EU imports in this product category. The US (16.7%) and Norway (5.1%) do also provide a relatively large share of imports in this category. Concerning jet fuels the Asian and Middle Eastern region is the core centre of origin, but sources are diversified. Jet fuels/kerosene imports stem mostly from Kuwait and India with in sum 26.1% of total extra-EU imports, followed by Saudi Arabia (11.2%) and the United Arab Emirates (8.9%) as well as Singapore (6.9%). All in all, the diversity of sources provides a sound basis to increase security of supply in regard to middle distillates.

» There are various possibilities for sourcing.

Discussing import dependency it is interesting to have a look at the balance of EU demand and product imports of middle distillates. If one presupposes that in practice the gap between consumption and EU refinery production is closed more or less by net extra-EU imports, the following figures can be derived: Net extra-EU imports of diesel and gasoil cover only 5.9% of all EU inland deliveries in 2009[10)]. For jet fuels/kerosenes this figure is significantly higher with 30.5%. Taking the two products into consideration according to the ratio of their volumes of sales (jet fuels/kerosenes being less than diesel/gasoil), the share of net extra-EU imports of both products together constitutes in sum around 10% of inland deliveries. Compared to the dependency on crude and feedstock imports from third countries, it becomes clear that the real challenge for energy supply is rooted in sourcing natural resources and refinery feedstock. EU production in the North Sea declines and has already fallen from 6.4 to 4.3 million barrels a day between 2000 and 2008[11)]. Consequently imports are on the increase. In 2009 extra-EU imports of crude oil and feedstock[12)] have covered 82% of refinery input – compared to 79.8% two years earlier. Main trade partners are Russia, Norway and Libya providing more than half of all extra-EU crude imports (56.3%). Concentration of sources and the fact that more crude has to be sourced from further away increase facility risks.

» The real challenge for energy supply is rooted in sourcing natural resources and refinery feedstock.

In general the question of security of supply shifts from the mere finishing of products to the structural organisation of the supply chain. Neither a huge dependence on crude nor on refined products imports serves security of supply purposes. Both activities carry risks. To minimise those risks we need a well-established global products market and safe crude supply to complement each other in order to secure EU product supply.

Competition on the Downstream Sector

Domestic refining and imports of products are not only two ways of securing European energy supply. They even counterbalance one another to the advantage of consumer prices.

7) EU Commission, "Europe's energy position. Markets and supply", 2009
8) BP Statistical Review of World Energy, June 2010
9) The following shares have been calculated on the basis of Eurostat data, "Statistical Aspects of the Oil Economy in 2009", 2010

10) Figures based on inland deliveries given by Eurostat, "Statistical Aspects of the Oil Economy in 2009", 2010
11) EU Commission, "Europe's energy position. Markets and supply", 2009
12) For calculation of shares, Eurostat data has been used, "Statistical Aspects of the Oil Economy in 2009", 2010

» Refineries have certain advantages on wholesale markets since they are able to control production levels.

Concerning the role of refining for price-building, it is widely acknowledged that the refining industry has a key function in downstream business. Firstly, refining presents the linkage between the two markets for crude oil and finished products. Though physical supply and demand affect prices on those markets primarily, refinery configurations and operating strategies have influence on product yields and thus market dynamics, too. Secondly, refineries have certain advantages on wholesale markets since they are able to control production levels. Most refining capacity in the EU, around 50%, belongs to vertically integrated international oil companies. These companies are able to realise competitive advantages since they have access to crude oils produced by their exploration and production companies and they can serve their own retail stations to lower prices than independent fuel retailers. All in all, they have more flexibility to adjust pricing strategies for crude sales and sales of products ex-refinery.

Apart from the effect of some independent refining, grown oligopolistic structures can only be offset by vibrant competition on the products market – both at import and wholesale level. In this regard, independent importers and wholesale companies bring flexibility and dynamism to markets. The importance of independents might vary from country to country due to the different market structures and historical backgrounds in the European Union. But altogether, independents in the petroleum sector have constantly expanded their market presence over the past four decades while the dominance of the international oil companies in the value added chain diminished because of the emergence of state-controlled oil companies. Nowadays refined products from third countries serve as an essential corrective for consumer prices. However, this is only possible as long as there are fair conditions for competition and thus entry and exit positions for independents are maintained. The same applies to other contributions of the independents, like the identification of new supply sources and launching of new and environmentally sound energy products.

» Independents in the petroleum sector have constantly expanded market presence over the past four decades.

UPEI agrees with the EU Commission expressing its concern over well functioning and competitive energy markets and affordable energy supply in the Energy Strategy 2020. The Commission stated that the aim of energy policy should be "safe, secure, sustainable and affordable energy for all". To deliver those optimal prices to consumers, we need level playing fields for all market participants, which means not only the oil industry but also the independent small and medium-sized oil enterprises. It should be kept in mind that any involvement in market conditions, i.e. through trade flow restrictions, could produce difficulties for independents. In consequence, their function as price corrective would get lost which would open the door for rising energy prices.

» We need level playing fields for all market participants.

Conclusions

Summing up, the following overall conclusions can be drawn. We need a competitive and flexible products market in the EU to deliver optimal prices to consumers and provide secure and reliable energy supply. With regard to security of supply this cannot be guaranteed by EU refineries alone. As long as refineries are not able to meet the exact demand in refined products, imports fulfil a balancing function. In addition to that, independent trade in refined products works as a price corrective which positively affects consumer prices. Any regulatory intervention has to be assessed with regard to its impact on products supply. Otherwise one risks to disturb the healthy balance of imports and EU products placed on the internal market which would have serious consequences for the EU and consumers.

» As long as refineries are not able to meet the exact demand in refined products, imports fulfil a balancing function.

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