## Prospects and problems facing European oil refiners

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undamental changes in the oil sector are redefining the worldwide refining industry model with long-term implications for this industry. The revolution of unconventional resources such as US shale oil production, and the growing demand of the emerging countries, among others, are causing large changes in the way oil is being produced, processed, traded and consumed around the world. In this process, the role of the refining industry in the global supply chain is changing as refineries move closer to the wellhead and to growing non-OECD markets, and as international trade in refined products continues to grow. New refining hubs that are being established in emerging economies are creating new oil product exporting areas. In these circumstances, countries are reconsidering their refining industry models in order to keep up with, and take advantage of, the changes in global markets.

In Europe, the low demand of recent years and weak profit margins are making a major impact on the refining Industry. Proof of the industry's increasing vulnerability is the shut-down of 15 European refineries since 2008, with an eight per cent decrease in capacity

and a loss of more than 10,000 direct skilled jobs and at least 40,000 indirect jobs. Capacity utilisation is also reduced at those refineries which are still working.

In addition, there have been ownership changes, with Russian, Chinese and Indian players as well as trading companies entering the market, as the oil majors have continued to refocus on the upstream.

The main, continuing, trend in light product demand in Europe is that of a decline for gasoline and an increase in that for diesel fuel. The key drivers of this structural shift are the change in private car ownership patterns that have been seen across Europe for the past 20 years, which are expected to continue, combined with growth in commercial diesel demand for road transport. Tax plays a part. Across most of Europe, lower taxation of diesel fuel compared to gasoline at the pump results in diesel being significantly cheaper for the motorist.

As a result of the decline in gasoline demand and increase in diesel and jet fuel demand, Europe is structurally long on gasoline and structurally short on both jet/kerosene and gasoil and diesel. The European refining industry has become increasingly out of balance with domestic demand, with the result that the region is





increasingly reliant on trade flows to balance demand with supply. This imbalance can, however, also be an opportunity to explore growing markets, as Latin America and Africa have a huge appetite for petroleum products.

Moreover, the European refining environment remained extremely challenging, as margins headed for record lows in 2013. The decline was led by gasoline crack spreads, as producers struggle to market their surplus production. The industry responded by reducing utilisation rates, which failed to offer relief as imports were quick to fill the supply gap. Integration between refining, trading and marketing should be a source of marginal competitive advantage.

Europe's fundamental problem lies in the inability of its refining industry to compete with new, cost-efficient supply from Russia, the Middle East and the US. High energy costs erode profit margins, being 60 per cent of refining costs in Europe versus 30 per cent in North America, mainly because of cheap shale gas in the latter. The high crude oil prices are also putting a lot of pressure on the refining industry. These energy concerns are of course shared by other energy intensive industries in Europe.

The main objectives of energy policy are to assure access to energy at an affordable price, and in an environmentally sustainable way. These objectives are not independent of each other and it is therefore not easy to attain any one of them without trade-offs affecting the others. In addition, there is the question of the impact on the economy and on industry. This factor is increasingly underlined by the fact that, in Europe, refineries are at particularly high risk of closure over the next few years as margins and utilisation rates are expected to come under more pressure and higher-cost refineries will face greater competitive challenges.

European regulation over the last 20 years has been focused on environmental issues, starting with the Auto-Oil programmes that reduced emissions both from vehicles and fuels and continuing with the "20-20-20" energy and climate policy targets, established in 2008. These have resulted in various legislation affecting the refining industry, including the Industrial Emissions and Fuel Quality Directives as well as a tightening of the Emissions Trading System.

All this regulation has imposed additional costs on the refining industry, requiring investments in order to achieve compulsory emission reductions both in the industrial process and in the oil products themselves.

These investments have modernised the sector, which is now ready to process a wider range of crude oils, on the assumption that regulation will not create artificial entry barriers to any crude oil. For example, the Spanish refining industry has invested more than  $\pounds 6$  billion between 2008 and 2012, in order to adapt its facilities to the new scenario.

The European Commission appears to be aware of these challenges within the sector. The Energy roadmap 2050, drawn up by the Commission in 2011, establishes that "keeping a European presence in domestic refining is important to the EU economy". The Commission's Directorate-General of Enterprise and Industry is carrying out "a fitness check" on the refining sector in order to make a quantitative assessment of the impact of relevant legislation and policies on costs and expected revenues of the sector, as well as a qualitative assessment of effectiveness, efficiency, coherence and relevance of measures. The results of this are due in September 2014.

The refining sector in particular and the energy sector in general need to improve their communication skills with regulators and with society as a whole, to underline its efforts of adaptation and its benefits to European economy.

Beyond the impact of changes and regulation on the refining industry itself is the impact on security of supply. Due to the global energy changes, Europe is at risk of becoming disconnected from the main crude oil and oil products market flows, affecting security of supply. The imbalance between production and demand of oil products has also increased product import dependence. In order to improve security of supply, oil products stockholding is required under a 2009 EU directive. This imposes an obligation on Member States to maintain minimum specific stocks of petroleum products, and to ensure that at least one-third of their stockholding obligation is held in the form of products.

The future of the European refining industry is linked to competitive and regulatory pressures. According to some analysts, the simple truth is that Europe needs more refinery closures to rebalance the market. However, measures aimed at maintaining Europe's refining industry should be promoted, given its key role in Europe's energy supply and security.