MENA refining in a more competitive landscape

Planned refinery expansions and greenfield projects across MENA, led by 830k b/d of new capacity from the GCC by 2020, could make the region an international products hub, with NOC trading arms playing a key role. But global capacity is also rising and this competition, combined with tighter financing, mean governments must ensure expansion plans add value, not just capacity.

The rapid increase in domestic oil demand driven by factors such as high population growth rates, rising income levels and low energy prices has prompted many governments in the MENA region to build new refineries and expand the capacity of existing ones. From around 2.3m barrels per day (b/d) in 1980, MENA oil consumption exceeded 8.7m b/d in 2014, accounting for around 11% of the world’s total. Building new refineries is also part of a wider initiative to integrate the crude, refining and petrochemical industries to create more value added by diversifying exports away from crude oil towards refined products and petrochemicals. As well as increasing the availability of feedstock, the use of refined products provides opportunities to produce more sophisticated petrochemical products that are essential to extend the value chain.

The first wave of expansion

Over the past decade, many countries in the region have announced ambitious plans to increase their refining capacity. If implemented, these projects could turn the region into a leading hub for exports of refined products, competing not only in the crude market, but also in the more specialized products markets. Some of these projects have already come on line with most of the increase concentrated in the GCC. The completion in the past three years of Yasref and Satorp, two Saudi refineries, and the Ruwais facility in the UAE added approximately 1.2m b/d of new refining capacity. The impact on the products trade balance has been substantial. For instance, in Saudi Arabia, gross exports of gasoline increased from 44,000 (k) b/d in 2012 to 173k b/d in June 2015 while that of diesel more than tripled from 98k b/d to 330k b/d during the same period. As a result, during the first half of 2015, Saudi net imports of gasoline stood at around 86k b/d and even though the kingdom was a net importer of diesel only a few years ago, net exports have reached 108k b/d (in May, net exports reached a peak of 300k b/d, but declined in June as demand for diesel in power generation increased). The Ruwais refinery in the UAE had some start-up problems and hence the impact on trade balances is yet to be fully felt.

Loss of refining capacity

While some countries in the GCC succeeded in increasing refining capacity, conflict has destroyed capacity in many Arab countries, resulting in shortage of petroleum products which has, in turn, forced governments increasingly to rely on expensive imports. Libya, Yemen, Syria and Iraq have seen significant cuts in refining capacity. The 300k b/d Baiji refinery in Iraq is essentially out of operation, a loss that has prompted Baghdad to accelerate plans to build new refineries in other parts of the country. This has not yet been successful: on top of financing issues, the absence of clear regulatory structure has kept foreign investors at bay. In Libya, the 220k b/d Ras Lanuf refinery, the country’s largest, remains closed, while the regular shut down of oilfields and labour strikes continue to disrupt operations at the 120k b/d Zawiya plant. In Yemen, the 150k b/d Aden refinery has operated intermittently during the conflict. In Syria, Damascus has lost control of all its major oilfields, leaving the Banias and Homs refineries operating at a fraction of their full capacity.

Project delays in countries not directly affected by conflict

Even those countries not directly affected by political turmoil have seen refining plans delayed or canceled. Morocco’s sole refinery, SAMIR, had its assets suspended by the authorities pending financial restructuring, while in Tunisia plans for the building of the Skhira refinery have been put on hold due to financing problems and the inability to secure crude from neighbouring Algeria and Libya. In Algeria, plans to build five new refineries to meet domestic demand have faced repeated delays and the current squeeze in revenues will likely put these plans on hold. In Jordan, the Jordan Petroleum Refinery Company (JPRC) plans to expand capacity from 70k b/d to around 150k b/d, but this will depend both on securing finance for the project and the completion of oil pipelines from Iraq. In Egypt, agreements have been made to upgrade and modernize two refineries, Assiut and Mildor, as well as the Mostorod refinery expansion, although it is not clear if these projects will be carried out on time.
Expansion slowing down even in the GCC

The oil-price collapse since mid-2014 has curbed investment over the medium term with some projects being pushed back and others canceled.

We anticipate only a handful of projects will come on line within or shortly after their targeted completion dates, with the Jazan project in Saudi Arabia and the UAE’s Fujairah plant the major additions. These will add 400k b/d and 200k b/d of capacity, respectively, between 2016 and 2020. The Jazan refinery has been pushed back into 2018 while the Fujairah refinery, with a target completion date of 2016, is now expected to come online at around the same time. The rest of the additions will come from the Ras Laffan 2 plant in Qatar, which will add 146k b/d of condensate capacity, followed by the Sohar expansion in Oman, which will add 82k b/d to its existing capacity of 116k b/d. We have excluded Kuwait’s 600k b/d Zour refinery from our trading industry and establish regional trading hubs. So far, NOCs in the region have almost exclusively relied on their trading arms or subsidiaries to buy and sell their refined products, bypassing the traditional oil traders such as Glencore and Vitol. In 2012, Saudi Aramco established the Aramco Trading Company (ATC) in place of its Product Sales and Marketing Department to handle the sales and purchasing of all petroleum products. Since its establishment, ATC has been an active player in the products market competing with the established oil-trading houses. Other examples include Oman Trading International (OTI), a venture between the state of Oman and Vitol. (Media reports suggest that Oman plans to take full control of OTI.) In Oman, plans are underway to build a large crude and petroleum product storage facility with a capacity of 200m barrels. The UAE has increased tank-storage capacity in

Current and additional refining capacity in the GCC (k b/d)

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<tr>
<td>UAE</td>
<td>707</td>
<td>417</td>
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Source: APICORP

medium term outlook (2016-20), as political uncertainty and the continuous dispute between the parliament and the cabinet, along with financial issues due to rising costs and funding, will most likely delay the project until after 2020. However, KNPC has made $13bn in awards for the project, a clear commitment from the Kuwaiti government that it wants to push on with this development. The 230k b/d grassroots Duqm Refinery (a joint venture between Oman Oil Company and Abu Dhabi’s International Petroleum Investment Company) is also likely to come on line in the early 2020s. In addition, much obscurity surrounds Bahrain’s Sitra Refinery expansion plans, which aim to add 100k b/d to the existing 260k b/d. With all these factors in the background, we estimate that the GCC will add 830k b/d of refining capacity in 2016-20.

Another wild card in the region is Iran. The 360k b/d Persian Gulf Star Refinery has been facing delays due to financing issues, but is still expected to come on stream within our medium-term horizon. Once it is fully operational, the country will not need to import gasoline. Iran is also planning to go ahead with some strategic projects such as the Siraf refinery complex with eight processing plants, each with a capacity of 60k b/d to be funded by the local private sector. Projects often take three to four years to complete and, given financing constraints, we expect much of the extra capacity to come on line after 2020. With the increase in condensate production from the South Pars fields, Iran’s main focus will be on condensate splitters, which will particularly affect naphtha supplies.

The rise of the trading arms

Establishing a key position in the products markets can provide MENA producers with a strategic opportunity to develop the Fujairah from 2.8m cubic metres to 7.4m cubic metres over the past 10 years with the total storage capacity expected to increase to about 9m cubic metres by the end of 2015. While in principle this could open opportunities for the private sector and the international trading houses, the current trend suggests a greater concentration of trading activity in the trading arms of NOCs and their joint-venture partners.

But competition is tough

In terms of trade flows, while the region is likely to continue to be a net importer of gasoline (or in the case of the GCC a modest exporter of gasoline where we anticipate export to reach 100k b/d by 2020), diesel exports from the GCC are expected to rise sharply from 310k b/d in 2015 up to 895k b/d in 2020. The new refineries in the Middle East (as elsewhere) have been configured mainly to produce diesel to cater for the anticipated increase of diesel demand from Asia, particularly from China. However, China’s economic rebalancing – away from manufacturing towards consumer goods and services – has changed demand patterns within the country: diesel demand related to heavy industry and transport of goods, is flat-lining while gasoline demand related to personal transportation continues to grow. This has turned China into a net exporter of diesel, with net exports averaging 76 kb/d in 2014 and hitting 168 kb/d in July this year. With US exports of distillates surging to record levels, Russia upgrading its refineries to produce more distillates, and Indian refineries ramping up their production, the competition in the products market, particularly in the diesel segment, has become more intense. This is squeezing margins and may force some of the
least efficient refineries to close, though shutting refining capacity could prove to be a lengthy process as factors other than profitability enter into the decision.

The new refineries in the Middle East will be the ones that survive in this competitive landscape – the key question being whether they will be able to achieve a positive return. This will depend on a number of factors; some are specific to the companies (namely, their efficiency in implementing the projects and their operational efficiency); some are country-specific (reforming energy prices); while others are sector-specific (the size and complexity of global refining capacity and changing demand patterns).

**Time to re-evaluate downstream strategy**

Faced with increased competition in global products markets, subsidized prices in local markets, and overcapacity in global refining, it is a good time for governments to re-evaluate their downstream strategies. Already, we have seen refining projects struggle to find adequate financing in a large number of countries, including Kuwait, Bahrain, Iran, Iraq, Jordan, and Algeria. In this current environment, where many governments will be forced to seek private sources of finance to fund many of the planned projects, they have to show that these projects are adding real value and are not solely driven by the increasing pressure to meet ever-increasing demand.

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