Commentary

Heralding a New Era in Trade Between the GCC, Africa and Asia

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Global geopolitical dynamics are altering trade flows of petrochemicals and chemical products from Gulf Cooperation Council (GCC) countries. These include the conflict between Russia and Ukraine impacting access to cheap gas for industrial activities in Europe, and protectionist energy and trade policies being introduced in some export markets, eroding the traditional advantages of value-added downstream products originating from GCC countries.

Petrochemical product exports from the GCC is an important source of foreign exchange and balance of trade leverage. Relative to other emerging market countries, GCC member states have stagnating or declining population growth rates. The current estimate of the GCC population is about 59 million people, of which about 52% are nationals, and most of the annual population growth in GCC countries comes from immigration (World Population Review 2023a). The demography of GCC countries also contributes to their slowing or declining population growth, with a growing elderly population as people live longer due to better healthcare and living standards, like in most developed countries (World Population Review 2023b). With such a demographic shift and an abundance of primary inputs for petrochemical and chemicals production, GCC countries are mostly net exporters to major demand markets or are providing capital to produce within the demand markets (offshoring), where their abundant natural resources can provide a critical advantage.

As shown in Figure 1, between 2019 and 2021, the value of GCC exports (all data are in 2023 United States dollar [US$] values) of basic petrochemicals and polymers grew by 38%. This was despite a drop of 13% in China’s domestic imports of these products during this period due to the impacts of its now defunct zero-COVID policy. During its zero-COVID policy, China’s net imports of basic petrochemicals and polymers in 2021 was about US$ 31.35 billion. This was a drop from the pre-COVID era in 2019 of about US$36.35. However, India’s net imports grew by about US$ 3.50 billion from 2019 to US$ 10.56 billion in 2021. Unlike China, India did not enforce a zero-COVID policy.

Figure 1. Value of net exports of GCC basic petrochemicals and polymers (million US$).

Sources: KAPSARC; UN Comtrade Data (SITC Rev.3 Code 57).
A breakdown of the exports from the GCC show that Saudi Arabia dominates basic petrochemicals and polymers, as shown in Figure 2. Almost three quarters of GCC exports originate from the Kingdom. The United Arab Emirates, Qatar, Oman, and Kuwait account for 11.6%, 10.2%, 3.9% and 0.3% of all GCC exports, respectively. Bahrain is a net importer of basic petrochemicals and polymers. Products covered for the purpose of this study include monomers and polymers of oxymethylene, ethylene, propylene, vinyl chloride, styrene, carbonate, amide, among others.

These GCC exports are mostly shipped to various Asian and African countries. To understand the trading opportunities for GCC countries in Asia and Africa, the United Nations (UN) Comtrade database was analyzed to ascertain the countries with the highest potential to expand their basic petrochemical and polymer imports from the GCC. Figure 3 shows the net imports of basic petrochemicals and polymers for domestic consumption.

**Figure 2.** Shares of GCC exports of basic petrochemicals and polymers.
in the dominant Asian (China and India), North African (Algeria and Morocco) and Sub-Saharan African (Nigeria and South Africa) markets. Apart from the countries listed, other major export markets in Asia and Africa (such as Singapore, South Korea, Japan, Egypt, and Kenya, among others) are either already predominantly supplied with exports from the GCC or are currently net exporters of the products, with limited expansion opportunities. Figure 4 depicts the net imports from the GCC, Europe, the United States, and other exporters into the respective markets. As shown in Figure 4, net exports of basic petrochemicals and polymers to Sub-Saharan Africa, North Africa and Asia from the GCC comprised 27%, 38% and 24% of these markets, respectively.

Nevertheless, there are a few factors supporting further trading opportunities for GCC exports to Asian and African markets. One is demand growth driven by population growth, with demographic shifts to populations significantly comprising young people. By 2050, Asia and Africa are estimated to house about 80% of the global population (Pew Research Center 2015). Therefore, most future demand for basic petrochemicals and polymers will be from Asia and Africa. GCC products must be competitive in those markets in order to maintain and gain further market share.

Another trading opportunity for GCC countries in Africa and Asia is their ability to displace higher marginal cost suppliers to the market, particularly European Union (EU) producers whose energy costs are predicted to remain high as cheaper supply is discontinued from Russia. The sizeable energy requirements of the chemical industry impacts the competitiveness of chemicals produced in Europe destined for export markets in Asia and Africa. The EU's high energy costs are also compounded by three new EU regulations, which are expected to increase the costs of petrochemical products originating from EU markets. These new regulations include the EU Foreign Subsidy Regulation (FSR), the Carbon Border Adjustment Mechanism (CBAM), and the International Maritime organization (IMO) regulations to reduce not only sulphur oxide (SOx) emissions from shipping, but also greenhouse gas (GHG) emissions from the combustion of marine bunkering fuels (IMO 2022).

The FSR, which came to force in January 2023, is aimed to offset internal EU market distortions caused by subsidies granted by non-EU countries to companies operating in the EU (European Commission 2023). The CBAM regulation is designed to price carbon emissions from industrial activities (including the chemical industry). It is also designed to eliminate carbon leakage by pricing emissions or limiting the in-flow into the EU market of products produced in jurisdictions without a carbon pricing scheme. The CBAM takes effect in 2023 but importers into the EU market will only start to pay carbon cost adjustments from 2026 (European Commission 2021).

Lastly, the IMO 2020 regulation introduced more stringent requirements for sulphur content, limiting it to no more than 0.1% for shipping in emission control areas (ECA) and 0.5% in other areas. Most ports in Europe and North America are within the ECA where this stringency for marine shipping air pollution is the highest. At its next meeting in July...
2023, the IMO intends to adopt an amendment to its emissions strategy, which would make the entire Mediterranean Sea area an ECA (IMO 2022). The amendments are expected to come into force by May 2024. Additionally, the IMO’s Initial GHG Strategy (IMO 2021) aims to reduce the carbon intensity of international shipping by 40% by 2030 and 70% by 2050, relative to 2008 levels.

All these regulations will impact trade geopolitics and reshape the flows of trade for both importers and exporters within and outside the EU. While exports of petrochemical products will face CBAM and IMO regulation cost factors, capital investments within the EU markets by GCC producers will also be confronted with FSR cost factors. These are expected to erode the traditional competitiveness of GCC exports and production in the EU. Regardless, as the various EU regulations start to take effect, opportunities for GCC expansion in Asian and African markets should begin to materialize.

Apart from Africa and Asia, Türkiye is also believed to hold great potential for GCC export expansion. In 2021, its net imports of basic petrochemicals and polymers for domestic consumption was US$ 11.34 billion, of which imports from the EU accounted for about 31% and GCC imports accounted for 26%. Therefore, as EU regulatory cost factors escalate the landed supply costs at these destination markets, the opportunities for the GCC petrochemical sector to grow its markets in Asia and Africa will only increase.

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Figure 4. Shares of net imports of basic petrochemicals and polymers in Asian and African destination markets.

Figure 5. Shares of net imports of basic petrochemicals and polymers into Türkiye by origin.

Source: KAPSARC; UN Comtrade Data (SITC Rev.3 Code 57).
References


About the Project

This study has been conducted under the KAPSARC Oil Value-Chain Analyzer (KOVA) project, which develops data, models, and analytics tools to gain insights into the impacts of business and government policies on the economic, environmental and energy efficiencies of the downstream oil and gas sector, including the effects on the midstream and upstream sectors in Saudi Arabia and beyond. The objective of KOVA is to deploy integrated systems analysis approaches for identifying optimal policy design options that satisfy the performance metrics and targets of stakeholders in the energy ecosystem.
**About KAPSARC**

KAPSARC is an advisory think tank within global energy economics and sustainability providing advisory services to entities and authorities in the Saudi energy sector to advance Saudi Arabia’s energy sector and inform global policies through evidence-based advice and applied research.

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