

Growing Concerns over the Worsening of the Energy Crisis amid the Prolongation of the “Strait of Hormuz Crisis”

Ken Koyama, PhD

Chief Economist, Senior Managing Director
The Institute of Energy Economics, Japan

Two months have now elapsed since the United States and Israel initiated military operations, which Iran perceived as attacks aimed at regime change, prompting Tehran to launch what can be described as a “do-or-die” retaliatory response. Iran’s retaliatory actions have given rise to two unprecedented developments: the de facto closure of the Strait of Hormuz and the infliction of damage on the energy infrastructure of major Gulf oil-producing states. Together, these developments have triggered sharp increases in energy prices—including crude oil, oil products and spot LNG prices—and have generated profound global anxiety regarding the security of energy supply.

Under normal conditions, the volume of oil and liquefied natural gas (LNG) transiting the Strait of Hormuz accounts for approximately 20 percent of the total global supply. It is, in practical terms, impossible to substitute this volume in a short period of time. As a result, a severe contraction in supply has emerged in international oil and LNG markets. Owing to the closure of the strait, surplus crude oil production capacity located inside the Persian Gulf—notably in Saudi Arabia—has effectively become unusable. While certain crude oil export pipelines that bypass the Strait of Hormuz remain operational, their combined capacity falls far short of the volumes normally transported through the strait. With respect to petroleum products, there is no viable means of exporting them via bypass routes; consequently, approximately 5 million barrels per day of petroleum product exports that would ordinarily pass through the strait have been completely disrupted. As global crude oil supply declines, refinery throughput has likewise fallen, giving rise to an extremely tight supply–demand balance for petroleum products. LNG exports cannot be rerouted around the strait, and while importing countries hold operational inventories, they lack strategic LNG stockpiles, resulting in an exceptionally severe supply squeeze in LNG markets.

Against this backdrop, WTI crude oil futures prices have remained elevated, albeit amid pronounced volatility. Market sentiment has been swayed on a daily basis by news reports and social media postings related to the course of the conflict and the status of the Strait of Hormuz, leading to sharp price fluctuations. Nevertheless, the fundamental driver of prices has been the substantial loss of supply, which has kept prices at persistently high levels. Although WTI briefly approached the \$120 per barrel mark at its peak, it has generally traded within a range of \$90–100 per barrel. It should be noted, however, that other benchmark crudes, such as Brent and Dubai, in particular, physical market prices,

have remained significantly above WTI. Moreover, prices of petroleum products—where supply–demand tightness is more acute—have risen even more sharply than crude prices, and LNG spot prices have surged in a similar fashion, reflecting the serious tightness of the market.

These price increases are beginning to translate into a tangible slowdown in the global economy, with a growing concern over further deterioration. Elevated petroleum product prices and fears of supply shortages are already exerting serious negative effects on everyday life and economic activity in many countries. In this sense, the Strait of Hormuz crisis can rightly be characterized as a major issue with the capacity to destabilize the global economy. At the same time, however, recent exchanges of views conducted by the author with various experts and industry stakeholders have given rise to a growing perception that there may be an “imbalance” between the sheer magnitude of the supply disruptions occurring in the context of the Strait of Hormuz crisis and the degree of increase observed thus far in oil and LNG prices.

As discussed in the author’s earlier essay, “A Japanese Perspective on the International Energy Landscape” (Issue No. 789), the present Strait of Hormuz crisis represents the first instance in the history of international energy markets in which massive disruptions of both oil and LNG supply have occurred simultaneously. During the Ukraine crisis, while there was a large-scale reduction in Russian pipeline gas supplies, Russian oil exports were largely redirected to alternative destinations, and total oil supply did not decline markedly. The oil crises of the 1970s, for their part, were events involving oil supply disruptions alone. Moreover, in terms of scale, supply losses during the First and Second Oil Crises amounted to roughly 5 million barrels per day each, whereas the disruption caused by the blockage of the Strait of Hormuz involves volumes on the order of 20 million barrels per day—an order of magnitude far greater. Even after accounting for partial substitution through the use of bypass pipelines, the scale of oil supply disruption in the current crisis far exceeds anything witnessed in the past. According to several expert analyses, cumulative oil supply losses since the onset of the Strait of Hormuz crisis are estimated to have reached nearly 800 million barrels. This figure is almost twice as large as the 400 million barrels involved in the largest coordinated strategic petroleum reserve release ever announced by the International Energy Agency in response to the crisis.

Despite this, the observed increase in oil prices—WTI peaking only briefly near \$120 per barrel—appears high, yet arguably inconsistent with the unprecedented magnitude of the supply disruptions. This perceived imbalance has increasingly become a subject of concern. As noted in the aforementioned essay, several factors have been cited to explain this situation: (1) market conditions prior to the crisis were characterized by easing supply–demand balances and a downward price trend, whereas previous crises occurred against a backdrop of tightening markets and rising prices; (2) strategic petroleum reserve systems are now well established in advanced economies, enabling rapid and coordinated stock

releases; and (3) the share of oil in the overall primary energy mix has been declining. Even so, many observers remain uneasy, sensing a disconnect between the sheer scale of the supply losses and the extent of price increases to date.

In recent discussions, some experts have suggested that a form of “poorly grounded optimism” may have prevailed in the market thus far, or that market participants have failed to fully internalize the implications and gravity of the massive supply losses now underway. Conversely, it may also be argued that lessons learned from past oil crises and from the Ukraine crisis have enabled the market to respond calmly, without succumbing to excessive anxiety or panic, thereby containing the extent of price increases.

Nevertheless, the fact remains that the scale of supply disruption in the current crisis is without precedent. Approximately 20 percent of global oil and LNG supply has been curtailed, and this situation has persisted for two months with no meaningful signs of improvement. While the future trajectory remains highly uncertain, market participants and experts appear almost unanimous in their view that complacency is unwarranted. The most optimistic scenario envisages a rapid agreement between the United States and Iran toward the cessation of hostilities and the reopening of the Strait of Hormuz. Even under such circumstances, however, many believe that restoring normal transit conditions would take months rather than weeks. Doubts also persist regarding the durability and stability of any such agreement. Furthermore, it can no longer be ignored that Iran has come to recognize control over traffic through the Strait of Hormuz as an exceptionally powerful strategic lever.

Under less optimistic scenarios, the de facto closure of the Strait of Hormuz—or conditions close to it—may persist. In that case, cumulative supply losses would continue to mount, and international energy markets would face increasingly severe shortages. There is growing concern that, at some point, the previously noted “imbalance” may dissipate abruptly, giving way to price levels commensurate with the massive scale of supply losses.

This constitutes a major risk whose probability rises the longer the Strait of Hormuz crisis endures. It is difficult to predict what price levels would correspond to such massive supply disruptions. However, given the characteristics of futures markets, one plausible benchmark may be a test of historical record highs. Should such levels be exceeded, it is unclear at present what price territory the market might then explore. Moreover, if massive supply disruptions persist and cumulative losses continue to grow, serious physical difficulties in securing energy supplies may also emerge. This represents what might reasonably be described as a “worst-case scenario.” Recognizing that the prolongation of the Strait of Hormuz crisis heightens this risk, the international community must prioritize crisis avoidance while simultaneously strengthening strategic preparedness against even the most adverse contingencies.