COMMODITY PRICES, CONFLICT, AND THE CONSTRUCTION INDUSTRY

When war breaks out between nations, markets are impacted.

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One of the reasons that economists compute inflation indices by subtracting food and energy prices (i.e., core inflation) is because prices can be heavily influenced by noneconomic factors like the weather. Weather can do things like wipe out orange harvests or assault vineyards, leading to higher prices for fruit, wine, and many other goods.

Geopolitics represent another factor. When war breaks out or tensions between or within nations are otherwise elevated, markets are impacted. For instance, oil prices spiked after the 9/11 attacks on the United States.[1] Not only can geopolitics impact the supply of commodities, but investors tend to shift from paper assets like stocks and bonds to harder assets like commodities. Consequently, this shift drives prices higher.

But here's the thing. These impacts tend to be temporary. As an example, as seen in Exhibit 1, during the days after 9/11 oil prices surged to more than $31 per barrel. This price was considered high at the time. As pointed out in a December 2001 *Strategic Analysis* article, the attack affected the heart of the U.S. oil trade, the New York Mercantile Exchange, because it was situated close to the World Trade Center.[2] The attacks, however, also produced recessionary effects, resulting in demand for oil dipping temporarily. By late 2001, the price of oil was 20 percent lower than it was pre-9/11.[3]

The 2008 spike in oil prices, also visible in Exhibit 1, was not driven by geopolitical conflict, but by an emerging global financial crisis. By early 2008, several of North America's leading financial institutions, including Bear Stearns and Lehman Brothers, were in trouble. A subprime mortgage crisis driven by people failing to make mortgage payments was spreading across the financial landscape. In response, investors sold paper assets and bought commodities. By July 11, 2008, oil prices peaked above $147 per barrel.[4]

The boom in oil prices didn't last. When Lehman Brothers faltered on the morning of September 15, 2008, the world plunged into a financial crisis. By the latter stages of December 2008, the price of oil dipped to around $30 per barrel.[5]

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This is hardly a recent phenomenon. The Gulf War began in mid-1990 and ended roughly six months later. Data from the U.S. Energy Information Administration indicate that the average price of a barrel of West Texas Intermediate (WTI) was $16.70 in June 1990, a month before fighting commenced.[6] By October 1990, the average price had risen 115 percent. Of course, Iraq and Kuwait were and remain major global oil producers. True to form, that price increase was short-lived. Prices quickly retreated to their preconflict level by the early months of the following year.

Here is the upshot. Investors seem to have realized that turmoil generally only results in short-term bounces in commodity prices. This form of thinking was apparent during the early days of the Ukraine/Russia conflict. Oil prices quickly bounced higher, particularly in Europe, which is much closer to the conflict and where Russian energy production has more influence on market dynamics.[7] But within a couple of days, oil prices had retreated to roughly their preconflict level.

This is not to suggest that significant disruptions are not possible during the days ahead. Investors and others have expressed concern regarding the potential for escalating conflict between Taiwan and China. Cybersecurity risks are burgeoning. President Vladimir Putin of Russia recently put his nuclear defenses on high alert.[8] Global warming appears to be producing more frequent and larger natural disasters. Meanwhile, a virus that has plagued humanity for more than two years continues to mutate.

Contractors would likely be among the first to point out that there has already been plenty of disruption that has added to the complexities of operating a construction firm in the United States. The pandemic's consequences have helped push construction input prices massively higher. Those prices expanded nearly 24 percent as of January 2022, the latest month for which data exist.[9]

Certain commodity prices have risen even more rapidly as the global economy reawakens, including steel, aluminum, and oil prices. Government data indicate that the price of steel mill products rose 113 percent between January 2021 and January 2022. The price of crude petroleum rose 63 percent. The price of concrete products rose 10 percent. The price of softwood lumber increased 20 percent, and the price of natural gas was up 47 percent.

Ukraine/Russia: Early days

As of this writing, the Ukraine/Russia conflict has had limited impact on prices, although there have been exceptions like nickel, aluminum, palladium, and wheat. Among its top exports, shown in Exhibit 2, Russia produces approximately 35 percent to 41 percent of the world's palladium.[10] Palladium is a rare metal and roughly half of it is used in the manufacture of catalytic converters. It's also a key component in electronics and dental amalgams. A few days into the conflict, palladium prices were up 48 percent over their mid-December level.

While that is approximately 20 percent lower than the peak observed in May 2021 (microchip shortages have pushed palladium prices higher), it is 374 percent higher than the cyclical low observed in February 2016. Russia and Ukraine collectively account for about 90 percent of the world's neon production, which is another key component in microchip manufacturing. Steelmakers use nickel in abundance, and Russia supplies more than 7 percent of global nickel production.

Approximately 70 percent of refined nickel goes toward stainless-steel production.[11] Batteries are another nickel application, including use in electric vehicles. Indeed, the metal is increasingly being used in many clean energy technologies, a key component of President Biden's 2021 infrastructure plan.

During the early stages of Ukraine's heroic and historic defense of its sovereignty, aluminum prices surged more than 3 percent to hit a record high of $3,450 per ton on the London Metal Exchange.[12] By that time, nickel was trading at its highest level in more than a decade at approximately $25,000 per ton. Russia is also a major producer of platinum, producing about 10 percent of global supply.

Russia is also one of the world's leading exporters of copper. According to the U.S. Geological Survey, Russia ranked 7th in the world in 2020 by producing 850,000 metric

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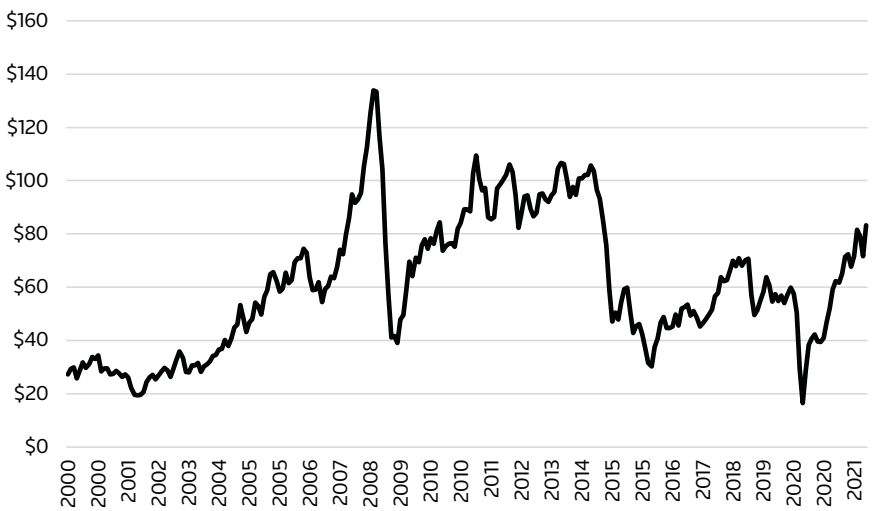
EXHIBIT 1
West Texas Intermediate Average Price



Source: "U.S. Bureau of Labor Statistics," United States Department of Labor. Available at: https://www.bls.gov/. Indexed to February 2013 (=100).

tons that year.[13] Production is expected to expand with the forthcoming completion of a new mining and metallurgical plant in Siberia. Severe sanctions placed upon Russia by many European nations, the United States, and others stand to reduce global supply and access. At least in the short term, these sanctions will add to global supply chain woes and put further upward pressure on key materials prices.

This is not the only recent conflict between Ukraine and Russia. In February/March 2014, Russia annexed the Crimean Peninsula.[14] As Exhibit 3 indicates, the annexation produced a surge in natural gas prices, but once again, the spike's durability was limited. After approximately one year, the price of natural gas was right back to where it had begun.[15] The price of crude oil was relatively unchanged during that span.

Scholarly detour

Some scholars have thought about scenarios involving oil in a different way. They argue that rather than conflict causing oil or other commodity prices to rise, rising commodity prices and scarce supply could breed conflict. Indeed, researchers have modeled scenarios to determine the likelihood of conflict resulting from rising prices. Examining 46 natural experiments throughout history, scholars Graeme Blair, Darin Christensen, and Aaron Rudkin found that on average shifts in commodity prices did not increase the likelihood of armed conflict.[16] This conclusion was reached after consideration of all commodities. But there are certain commodities over which countries could go to war, including capital-intensive ones like oil.

These findings are consistent with conclusions of a prior study analyzing Colombia in the context of its two major exports: coffee and oil. The study found that swings in commodity prices from external sources resulted in more internal conflict. This was due to opportunity costs. When the price of coffee dropped, farmers and those working in related industries were more likely to join armed groups. When the price of oil increased, the chance of conflict increased as opposing groups fought for control over resource production.[17]

The international response

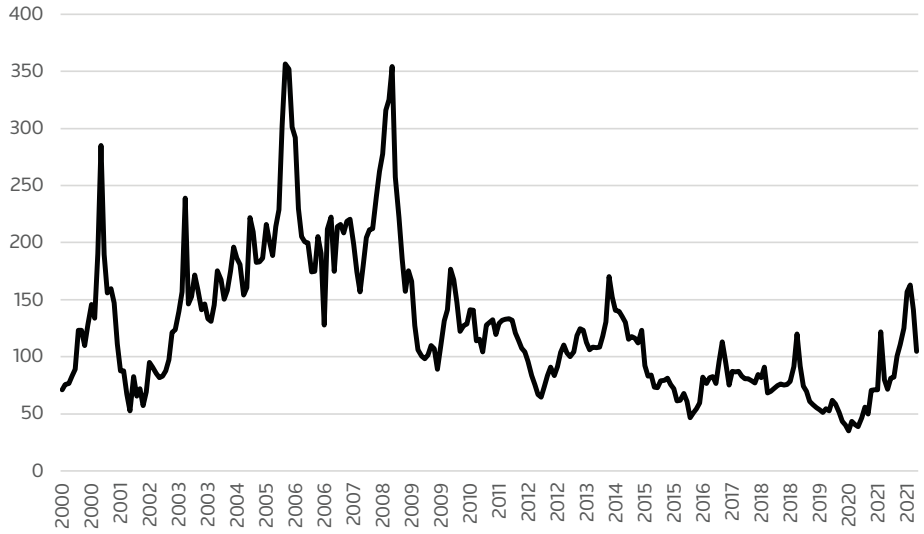
On February 22, Germany scrapped plans for the Nord Stream 2 pipeline, which would have transported Russian natural gas to the

EXHIBIT 2
Top 10 Russian Exports

Export	$USD
Mineral fuels including oil	$141.3 billion
Gems, precious metals	$30.4 billion
Iron, steel	$16.0 billion
Cereals	$9.5 billion
Machinery including computers	$8.3 billion
Wood	$8.2 billion
Fertilizers	$7.0 billion
Copper	$5.6 billion
Aluminum	$5.5 billion
Fish	$4.6 billion

Data from: "World's top exports." Available at: https://www.worldstopexports.com/.

EXHIBIT 3
Producer Price Index: Natural Gas



Source: "U.S. Bureau of Labor Statistics," United States Department of Labor. Available at: https://www.bls.gov/. Indexed to February 2013 (=100).

rest of the continent.[18] The European search for alternatives could drive global prices higher, perhaps for years. It may also stimulate U.S. shale gas production, which can be exported through liquefied natural gas terminals, including one located in Calvert County, MD, offering ready access to Europe.

In an article published by the *Financial Times*, Ben Luckock, cohead of oil trading at one of the world's largest commodity traders, stated that many refinery owners are "actively choosing to not buy Russian barrels."[19] Moreover, he adds that shipowners are steering clear of Russian ports.[20] While this has yet to cause global oil prices to surge with any durability, these circumstances will at least keep upward pressure on prices for the foreseeable future.

Looking ahead

The Ukraine/Russian conflict should be a reminder to all contractors that no matter how challenging circumstances may seem, matters can always further deteriorate. The cost of delivering construction services remains elevated. Anecdotal and other evidence suggests that some project owners have delayed and even canceled projects because of elevated construction costs. Recently, construction of a chip manufacturing facility in Arizona was postponed because of a lack of construction workers.

While global markets have proven resilient in the face of past conflicts and catastrophes, and while commodity markets generally handle the onset of hostilities in stride, risks remain. The conflict could widen and linger. Moreover, Russia is commodity intensive, producing oil, natural gas, platinum, palladium, nickel, copper, and other inputs in abundance. Perhaps the conflict will end quickly, but sanctions placed on Russia are likely to last for years. All of this therefore reflects another reason to believe that input prices could stay stubbornly high longer than anticipated and far longer than any U.S. contractor would want. ■

NOTES

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