WET BLANKETS AND THE LOOMING FORMULA SHORTAGE

Economies may soon confront the very real possibility of further fuel shortages with dire consequences for food security.

May 26, 2022

By: Sam Buchan

KEY TAKEAWAYS:

1. President Biden's war on American energy is exacerbating supply-side constraints throughout the economy, with severe ramifications for consumer prices, industrial output, and agricultural production feeding into record inflation and a looming food crisis.

2. Diesel prices broke new records, reaching a national average of $5.54 per gallon, while domestic inventories of diesel have reached new lows. This is true of other refined products as well.

3. Global refining capacity, particularly in the United States, has been hollowed out after years of underinvestment and neglect. The hyper-focus on a 'green' transition has restricted access to capital for refinery repairs, upgrades, and construction and has made supporting infrastructure essential to deliver affordable, reliable, and secure energy politically untenable.

4. Diesel is just one example of the implications of policies that recklessly overlook the market dynamics of hydrocarbons and refined products, and their extensive integration as foundational drivers of the global economy.

5. Prioritizing policies that allow for the development of American energy resources will decrease exposure to supply-side disruptions and encourage investment and development of critical infrastructure. This is particularly critical for American refineries that will continue to be key drivers of commerce and agriculture.

Diesel, the "workhorse of the global economy," is undergoing an unprecedented rally that could lead to more drastic countermeasures, such as fuel rationing, as costs reverberate throughout nearly every aspect of the economy. Diesel has reached a record national average in the United States, topping $5.54 per gallon. Meanwhile, diesel prices have undergone a similarly devastating rally across the globe. American consumers—who primarily use gasoline—might be forgiven for overlooking the signs of a looming diesel supply crisis. With the backdrop of a baby formula shortage, we are at a dangerously high risk of yet another formula shortage—this time, however, the issue could be a global food crisis exacerbated by supply-side constraints, including diesel.

Across the board, global hydrocarbon markets have experienced a tightening, where spare capacity is severely constrained and likely incapable of rising to meet global demand under current post-pandemic recovery trends, inhospitable policy environments for fossil fuel development and production, and an embargo on Russian energy exports stemming from Russia's invasion of Ukraine (IEA, 2022). While discussions of the global energy crisis have largely focused on the effects within crude oil and natural gas markets generally, they have often only scratched the surface of the tertiary effects of limited spare capacity. This is where diesel enters the discussion. More so than gasoline, diesel price spikes directly impact the retail market because of the fuel's deep integration within nearly all supply chains and agricultural production (EIA, 2021). The cost of transporting goods via truck, fueling industrial processes and construction, transporting waste for major metropolitan areas like New York City, and, of course, the cost to farmers of running agricultural equipment and machinery are all mounting. Leisurely activities are also heavily dependent on diesel, ranging from ocean cruises to cross-country motorcycle trips. However, the most significant issues facing consumers and the global economy are the effects on the agricultural sector, particularly during the spring and summer in the northern hemisphere, during which this sector is traditionally more active.

Consider the agricultural sector. Diesel, embedded in every stage in the supply chain of food products, is what ensures food can be produced and delivered to the tables of households. In the presence of a diesel crisis, farmers will face mounting uncertainty surrounding their upfront costs to ensure crop planting, maintenance, and harvest. Any reduction in the volume of agricultural products from the market will trigger further rises in global food prices beyond existing pressures.

Ukraine alone ranks among the top 10 producers of primary agricultural products, including wheat, barley, corn, and soybeans, but realizing the crop yields will prove difficult given limited and severely constrained access to diesel fuel and logistical constraints of delivering products to market during a hot war. Meanwhile, regions relatively removed from the direct impact of Russia's invasion of Ukraine are similarly facing dire circumstances. France, the European Union's top producer of corn, has reduced the planting of crops by 6 percent. Around the world, leading producers of agricultural products, such as Brazil, India, the United States, and China, were already experiencing shortages of fertilizer, which is essential for ensuring crop yields. The shortages correlate to the global fertilizer trade generally as the commodity, according to the World Bank, has experienced a 30 percent increase since January 2022, compounding an 80 percent surge in 2021 (World Bank, 2022). Now Brazil, and nations like it, must confront the added pressure of diesel prices. To drive the point, this month, Petrobras—the nation's energy champion—announced the need to raise diesel prices by 8.9 percent. The action has spurred fears within Brazil's National Association of Municipal Transport Companies of cost-induced reductions in the country's ability to provide basic services, such as public transportation (Rio Times, 2022). These fears are rooted in the need for leading agricultural producing nations to ensure diesel supplies for critical industries and commerce, like agriculture.

To fully understand the genesis of this rapidly emerging diesel shortage, we must start with the impacts of the pandemic-induced demand destruction, during which global energy consumption plummeted because of lockdowns, and it became uneconomical for refineries to operate at previous utilization rates. During the pandemic, global refineries experienced the elimination of over 3 million barrels per day of operational capacity (Gerson et al., 2022). The United States alone accounts for more than one million barrels per day of this lost capacity—5 percent of refining capacity in the United States—while overall throughput was

slashed by 13.6 percent. In Europe, a similar scenario played out, with an 11.8 percent reduction in throughput. The pandemic also triggered the largest ever recorded annual reduction in global refinery utilization, which ultimately bottomed out at 74 percent (BP, 2022). In an industry where margins are traditionally tight, this is a difficult phenomenon to bounce back from.

Looking more closely at the United States, we see a broader pattern of underinvestment and neglect emerge that has compounded the negative impact of the pandemic. The U.S. Energy Information Administration (EIA) stated that distillate fuel inventories—refined products such as diesel—are "about 23 percent below the five-year average for this time of year" (EIA, 2022). Along the East coast, U.S. stockpiles have been reduced to 30-year lows, which amount to just three days of demand. The East Coast's refining capabilities have also suffered significantly over the past 10-years, witnessing a refining capacity loss of 50 percent (800,000 barrels per day) (EIA, 2022), while national refining capacity has shrunk by over one million barrels per day in just the past few years (Powell, 2022). The scrambling of the American Northeast to import Russian diesel supplies in February—just prior to the embargo on Russian fuel—served as a harbinger of the coming crunch (Xu, 2022). Taken as a whole, the collapse of domestic refining capacity should have served as a warning sign of an impending market shock stemming from dependence upon foreign suppliers.

Under normal market conditions, one might anticipate a recovery in refining capacity and output, including for diesel, not to mention crude oil and associated natural gas production, but we are not experiencing normal market conditions. The largely voluntary shunning of Russian crude oil and refined products by energy traders, as well as some national embargoes of Russian energy, have further tightened lingering supply-side constraints from the pandemic. For instance, exports of Russian diesel, which in February amounted to 3.8 million tons, plummeted by 14 percent in April, stemming from mounting financial sanctions—a trend that will only continue to grow as Russian refineries face global capital restrictions and the devaluation of their products (Slav, 2022). But, there is also the matter of what could be considered a global unforced error. The political acceptance among major economies of a rapid energy transition unleashed by environmental activism is eviscerating the development of sound energy policy. Rather than restoring primacy to energy access, affordability, and security, a false assumption that climate change is a doomsday scenario has prevailed. This is what Larry Kudlow, former Director of the National Economic Council, has dubbed the "wet blanket over the entire oil and gas industry." Following the broad adoption of environmental, social, and governance (ESG) standards—the manifestation of a regressive economic philosophy known as stakeholder capitalism—investors and companies within the hydrocarbon sector have experienced limited access to the flow of capital towards much-needed infrastructure development, capacity expansion, and essential upgrades and repairs. This not only hurts the hydrocarbon sector but it hurts American families and businesses by artificially increasing prices and lowering their standard of living. By contrast, policies under President Donald J. Trump's Administration, such as modernizing the National Environmental Policy Act and other regulatory reforms to accommodate supply-side growth, caused energy production to reach new levels that established the United States as both the leading producer of crude oil and exporter of natural gas. Now, following President Biden's near-total repeal of President Trump's pro-growth policies, we are seeing the implications of anti-fossil fuel policies. And the implications are dangerous, not just for Americans but for the world.

The sad irony is that the United States has domestic capabilities to ensure its exposure to external supply-side disruptions and severe energy price inflation are mitigated and to help

provide essential fuels, like diesel, to the global marketplace. For instance, crude oil produced in the Gulf of Mexico federal lease blocks, the National Petroleum Reserve of Alaska, Alaska National Wildlife Refuge, as well as in California, is more readily refined within U.S. refineries that have been tailored for medium to heavy crude oils. However, they have become increasingly difficult to access due to political opposition from liberal policymakers at the state and federal levels. Even seeking sources of this crude oil from long-standing trading partners of the United States with strong environmental records has been derailed. Look no further than the abrupt cancellation of the Keystone XL pipeline. The outcome amounts to the unparalleled neglect of an industry that comprises 84 percent of global energy and utter dismissal of energy security (Mills, 2022).

Absent corrective actions on the part of policymakers and the capital investment community, the global economy will continue to be hampered by a combination of heavy-handed government market interventionist policies and the collateral damage of necessary, albeit costly, pressures to hold Russia accountable for its war against Ukraine. And make no mistake, corrective action is essential, particularly at a time when the two largest economies, the United States and the European Union, are facing decades-high inflation (8.3 percent and 7.5 percent, respectively) (Faulkender, 2022) driven partly by supply-side constraints (Eurostat, 2022). But if that is not enough to spur a course correction, then the threats posed by a diesel crisis should be. Further inflation within the energy sector will continue to be a primary driver of consumer inflation, and its implications for global food prices could prove too much for an already struggling economy and be especially costly for lower- to middle-class families and seniors on fixed incomes. Seasonal demand shifts are not going to relieve market pressures this time around, and policymakers and stakeholders would be unwise to assume so. The combination of continued tight natural gas, oil, and refined products only serves to set the global economy up for further downward revisions of gross domestic product growth projections.

Federal policies that do not anticipate and mitigate the consequences of embargos are reckless to the extreme. Americans cannot afford a regime of ad hoc and insulated policymaking. While there is little that can be done to correct the market in the near term, there are plenty of lessons to be learned from the past year. First and foremost, American foreign policy has been liberated by the development of its natural resources, causing American allies and trading partners to experience greater security of supply. With Russian supplies increasingly isolated from the global marketplace, it has largely fallen to the United States to fill the void, not just in terms of natural gas but refined products like diesel. This is a role the United States should embrace, and this is a moment the United States should rise to meet. Rather, we are left with a continually diminishing refining capacity and an oil and natural gas industry under attack from environmental activists and liberal federal policies. The result is that climate purity is prioritized at the expense of considerations for the economic prospects of struggling American families or those in less developed countries facing food insecurity and energy poverty. In short, liberal environmental policies threaten the food security of lower-income Americans and the extreme poor worldwide.

To truly address the American economy's vulnerabilities to energy crises, as well as the broader implication it carries, we must remove President Biden's wet blanket smothering our industry and ensure sufficient spare capacity, the predictable availability of federal lands for sustainable development, the responsible management of U.S. strategic stockpiles, such as the Strategic Petroleum Reserve (SPR). The blundering revocation of federal leases, irrational opposition to infrastructure development, and the repeated price-fixing measures

of the previous SPR releases is creating a perfect storm on the horizon, and hurricane season is just around the corner.

Diesel is just one example of the implications of policies that recklessly overlook the market dynamics of hydrocarbons and refined products. We are not close to a transportation sector that is powered by electrons rather than refined fuels. The hyper-focus on what comes next has restricted access to capital for refinery repairs, upgrades, and construction and has made supporting infrastructure essential to deliver affordable, reliable, and secure energy politically untenable in some geographic regions of the United States, namely the Pacific and Atlantic coastlines. But there are more dire implications that stand in direct conflict with the projected ideals of progressives—ensuring a better world for struggling families. Policy does not operate in a vacuum, and the plausibility of a diesel shortage will further cripple the ability of lower- to middle-class families to maintain a positive economic outlook, let alone ensure reasonably priced food. America has a choice between putting an improved standard of living for American families ahead of climate ideology.