

# The Moment before a Perfect Storm

## The Impact of the Ukraine Conflict on the Global Economy and Energy Markets

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DOI: 10.31278/1810-6374-2022-20-4-70-81

The Ukraine conflict has created a new economic reality, highlighting the critical importance of resources over manufacturing, finance, and services. After the Russian troops rolled across the Ukrainian border, the West imposed the harshest sanctions any country had ever faced, both in terms of their number and intended impact. It has long been recognized that economic sanctions are a weak deterrent for governments resolutely pursuing their policies. The current situation is more nuanced though. Together with other dramatic events, above all, the COVID-19 pandemic, Russia's special operation in Ukraine has opened a unique window of opportunity for resource-rich countries to influence the immediate future of the world economy that currently hangs in balance.

Russia's relatively modest share in the global economy (about 1.8 percent in nominal terms, according to the World Bank) produced the false impression that it was an easy target for sanctions. Yet Russia has carried on with its military effort as if unaware of the draconian economic restrictions, whereas the Western economies appear to be suffering as much—if not more—from their own sanctions intended to hurt Russia. As the conflict drags on and the U.S. and the EU keep

coming up with new sanctions packages, they seem to have reached the “safety limit,” that is, run out of ways to increase economic pressure on Russia without inflicting critical damage on their own economies.

### **FACTORS OF RUSSIA’S RESILIENCE**

Russia is the largest player in the international energy markets. According to the BP Statistical Review of World Energy, its share in the global energy trade in 2021 was 12.5 percent for crude oil and petroleum products, 18 percent for coal, and 24 percent for natural gas. It plays a key role in the European (EU-27) energy market, supplying 20 percent of coal, up to 31 percent of crude oil and petroleum products (or 25 percent given that part of the volumes is reexported to other markets) and 37 percent of natural gas. Shortly after the start of Russia’s military operation, the EU decided to phase out coal imports from Russia, as it probably had enough slack in the system to switch to alternative fuels or suppliers. The U.S., Canada, and the U.K. were also quick to introduce a phased ban on the import of Russian crude and petroleum products, which is not as essential for their markets as for the European one. But the EU had to think long and hard about the feasibility and structure of its embargo on Russian crude and products. After a series of false starts, the EU finally came up with an intricate scheme that still excludes much of the Russian crude pipelined to landlocked refineries in Central Europe. To be sure this does mean certain hardships for Russian producers and refiners, since some of the 4.3 million barrels per day of crude and products previously exported to Europe (in addition to 0.65 million barrels per day sent to the United States) cannot be placed on the world market due to bottlenecks in logistics.

The volume of Russian “oil on water” (i.e., onboard tankers) has increased sharply, which means longer transportation routes, longer shipping time (by an average of 12-14 days) and higher freight costs, and not just for Aframax/Suezmax tankers favored by Russian exporters. It has also triggered cuts in refinery runs (by about a million barrels per day in June compared to February) and created an oversupply of crude in the domestic market.

In the future, the restrictions may produce an effect peculiar to Russia: historically, its refining industry has been heavily tilted towards diesel fuel and fuel oil, while its motor fleet largely runs on gasoline. Thus, to produce enough gasoline to saturate the local market, Russian refineries must run close to nameplate capacity. Traditionally, most of the surplus middle distillates and fuel oil would be exported mainly to European buyers. Now, a reduction in refinery runs due to the closure of export markets may create a shortage of gasoline, a commodity that is politically sensitive to the government trying to convince the public that the military operation in Ukraine will not affect their daily life.

However, the rising global oil prices, combined with record high refinery margins, sometimes exceeding \$20 per barrel in Europe and reaching \$40 per barrel in Asia, and a European transportation fuel crack spread of up to \$48 per barrel, have allowed Russian oil companies to sustain profitability, despite growing Brent / Urals differentials (from \$1-5 per barrel in February to \$32-35 per barrel in June-July).

Another reason for Russia's resilience to oil sanctions is that, unlike pipeline gas, crude is liquid and fungible, and most of the Russian barrels ousted from the European and U.S. markets have been channeled to Asian destinations. In fact, Chinese imports of Russian crude increased to just under 2.0 million barrels per day in May, as Russia overtook Saudi Arabia as the largest supplier of oil to China. It is important to note that Urals and ESPO grades are highly suitable for Chinese refineries and compete with Middle Eastern medium grades, affecting their price differentials to Brent. Even before the start of the Russian special operation in Ukraine, China had agreed to buy from Russia an additional 200,000 barrels of oil per day, delivered by pipeline through Kazakhstan. Already in March, China was reported to begin filling its storage facilities with the Urals grade, profiting from the growing discounts on it. India's oil imports from Russia saw an even sharper increase to 950,000 barrels per day in June.

Of course, the increase in Chinese and Indian offtake of Russian oil comes largely at the expense of competing grades backing out from these markets. However, Saudi and other Gulf grades are unlikely to

yield too much space to Russian competitors, as serious counterparty risks and long-term market share sustainability are at stake. A large part of the Gulf deliveries come under long-term contracts, which will not be easy for buyers to rescind. Also, the shipment of Russian crude to Chinese ports takes about twice as long, giving rise to various risks of supply disruptions. Also, the imposed sanctions create numerous problems with freight, insurance, payment methods, etc.

However, the discounts offered by Russian traders are large enough to oust some of the lesser oil producing powers from China and especially from India. Iranian, Brazilian, West African and U.S. grades have been reported to be clearing the market for the increased Russian volumes. Indeed, Russia is now India's second largest oil supplier after Iraq, its share in Indian imports is nearing 20 percent (up from 0.5 percent a year ago). The biggest beneficiaries of the current situation are Indian refiners: their purchases of Russian crude in the April-June of this year soared to 682,000 bpd from just 22,500 bpd in the same period in 2021. Some Indian refineries are now running above their nameplate capacity, exporting some of their output to Europe as record high European crack spreads allow for such unusual deals. Parts of Asia appear over-refined, so their products will end up in Europe, Africa, and the Americas. As supply chains will inevitably lengthen, disruptions will become more likely, and logistics will become more expensive, leading to imported inflation and dislocated regional pricing. Ultimately, Europe will bear the brunt of the risks and costs, while India and China will be the net winners.

In a rather odd way, Russia may benefit too, as the risks associated with a massive exit of Russian barrels from the market have kept the price of oil near historical highs, with the potential of rising above the 2008 "high-water mark," should those risks materialize.

The same applies to Russian natural gas: as the dependence on it of the main consumers in Europe is even greater, they cannot count on huge situational discounts similar to those for oil. In fact, despite the declining production and exports of both oil and gas, as well as the sharp discounts to comparable market prices, Russia is likely to receive record high hydrocarbon export revenues estimated at up

to \$320 billion this year against \$235 billion in 2021. This is one of the key reasons why the Russian ruble, after falling to as low as 140 rubles against the U.S. dollar, has recovered and is currently trading in the 55-65 range against the U.S. currency. Other reasons are import restrictions imposed by the Western sanctions and foreign exchange controls by the Central Bank of Russia, albeit significantly loosened recently.

### **A BOOMERANG FOR THE WEST**

For Western governments, keen to punish Russia but much less keen to see high energy prices feed into the global inflation, it is important to keep the markets in balance either by finding suitable substitutes for Russian volumes or by keeping those volumes in a global energy balance while at the same time penalizing Russia with lower prices (for example, by introducing a ceiling price for Russian oil). Both goals are rather hard to attain.

Making Russian companies accept lower prices for their crude and products will require a high degree of cohesion among the majority of global buyers. This is rather unlikely as many important buyers have shown little willingness to participate in the Western-led sanctions campaign. Besides, Russian traders already offer big discounts to their customers. The introduction of special import tariffs on Russian crude and products will hardly be more effective given the available alternative destinations for Russian oil. Furthermore, such a move would ultimately increase the purchase costs, which contradicts the declared aim. Hence this idea is unlikely to gain support, especially in today's highly inflationary environment.

Finally, an audacious move would be to designate a single buyer or a limited group of countries buying Russian crude and products. It would almost inevitably be China as the only consumer capable of absorbing the bulk of Russian exports. Theoretically, a strictly limited group of non-competing buyers should drive the purchase price down to marginal unit costs while leaving the rest of the world to compete for the rest of the oil. Yet, logistical difficulties aside, such a move would give the Chinese an "unfair advantage" in a key economic input just

at the time when the West, facing the highest inflation rates over four decades, is standing on the brink of confrontation with the fast-rising Asian power. Obviously, there is no easy solution here.

When it comes to increasing oil production in other (than Russia) parts of the world, most observers see little chance of a big and fast enough increase to offset much of the potential loss of Russian barrels. Estimates for core OPEC spare capacity range up to three million barrels per day, mainly attributed to Saudi Arabia and the UAE. However, few experts expect to have all of it deployed anytime soon. The recent visit of U.S. President Joe Biden to Saudi Arabia demonstrated the futility of such hopes. Besides purely technical difficulties, for Saudi Arabia and other oil-producing Gulf states the survival of the OPEC+ accord, where Russia plays a major role, is essential to maintain their grip on the market. The agreement provides for a gradual increase in production as the global demand recovers from the coronavirus pandemic. Any serious departure from it could be contemplated strictly on the grounds of staving off a global economic collapse and demand destruction. Other possible considerations could include protecting market share and holding back major investments in non-OPEC countries, especially in shale projects in the United States, although this is a less pressing issue at this point.

Meanwhile, Iran and Venezuela, also OPEC members with a potential capacity surplus, are struggling with a chronic underinvestment caused by U.S. sanctions. Even if attempts to negotiate more supplies of Venezuelan and Iranian oil are successful (which is far from certain), few experts expect more than a few hundred thousand barrels per day of extra crude from Venezuela and a maximum of 700,000 barrels per day from Iran in the next eighteen months. As for other OPEC members, they are already struggling to keep up with their quotas on the OPEC+ schedule.

The last big hope for increasing the output—U.S. shale production—is not expected to provide an increase of much more than 0.8-1.0 million barrels per day to December 2023, given the post-2014 strict capital high grading and the general tendency for rising interest rates.

The U.S. drilling rig count (752 as of July 2022, Baker Hughes) is at the pre-pandemic levels, but reaches only three-quarters of the 2018 level and just under 40 percent of the 2011-2014 peaks.

Assessing the likelihood of Russian barrels being quickly supplanted by bringing online extra capacity elsewhere one should take into account the general underinvestment in the global oil industry that has prevailed since the 2014 oil price drop, the doubts regarding the viability of the leverage-driven U.S. shale oil model, and the political push for decarbonization that has created a “stranded asset” attitude towards fossil fuel projects in many parts of the world.

All this leaves us with rather wobbly markets. Predicting the impact of sanctions on the production and export of Russian crude and products and, ultimately, on the oil price, has proven more difficult than one could have imagined. One reason is the closure of much of Russian domestic statistics, which makes the assessment of the prospects for production in Russia an educated guesswork at best. Since globally available incremental production will not be able to bridge the gap left by sanctioned Russian barrels, another factor is the difficulty of estimating the demand destruction needed to bring the global energy balance back into equilibrium. While the sensitivity of global GDP and oil demand to oil prices is often estimated at around 2 and 3 percent, respectively, it is likely to be non-linear over a larger set of observations that we must now consider due to high price volatility. Forecast accuracy also suffers from circular reasoning, since demand for oil depends primarily on economic growth. Today we are at an especially peculiar point when the high volatility of oil prices pushes this price-demand relationship beyond the bounds of conventional thinking.

Supply-disrupting political externalities increase the risk of a global economic recession, as higher oil prices amplify the inflationary pressures on central banks to respond by raising interest rates. Thus, depending on what risks the markets prioritize on any given day (the risk of reduced oil supply or the risk of a global recession driven by rising inflation), oil prices may push upwards or suddenly plunge.

Similar forces have been in play to reverse the usually inverted relationship between the dollar and the oil price. Negatively correlated historically, it has often shown a positive correlation recently. This phenomenon of “expensive oil for expensive dollars” may be explained by expectations of the Fed raising interest rates to combat inflation caused by rising energy prices. Today in many cases it is the rise in oil prices that drives the dollar up, while historically a stronger dollar has usually driven the price of oil down.

The effective seizure of the Russian Central Bank’s dollar- (and euro-) denominated currency reserves has dented the confidence in the dollar-centered world financial system. A transition to what effectively will be a multi-currency system backed by physical commodities has already started. It is not yet clear how detrimental this shift will be to the American model of economic prosperity based on stimulating consumption, but, remarkably, countries that take a “neutral” stance in the conflict in Ukraine (China and Hong Kong, Saudi Arabia, Kuwait, Brazil) have reduced their share in U.S. assets held by non-residents by one-third (from 23.5 to 15.5 percent) in the last decade. At the same time, the share of countries allied with the United States (e.g., the U.K., Japan, Canada, France, Taiwan, and Korea) and offshores has increased proportionally (from 70 to 80 percent), offsetting this trend. We are witnessing the growing reliance of the U.S. on its key allies to finance the twin trade and federal budget deficits, while other countries are trying to distance themselves, albeit gradually, from this financial tinderbox. The world is already drifting towards financial multipolarity, and the process is being accelerated by the conflict in Ukraine.

Presumably, increased dependence on allies should make capital inflows to the United States less volatile. But this is not necessarily the case. Most of the U.S. allies depend on imports of commodities and, given the increased cost of their imports, will run much smaller trade surpluses or even face trade deficits. This will reduce their appetite for buying U.S. assets, especially in the case of European partners, as gas imports alone are expected to cost them an extra \$200 billion this year compared to 2021.

## **INFLATION AT ANY COST?**

The fear of inflation creates the risk of a severe global recession that will swipe all bets off the table, while swings in energy prices aggravate the risks to the most sensitive level. It is not that the world has not been in a similar situation before: the crises of 1973, 1979, and 1991 began with oil supply disruptions that immediately led to a significant increase in oil prices and then to a recession. Today, however, the world is teetering on an even more dangerous edge due to the over-indebtedness of the global economy. Worse still, the cost of debt has been artificially suppressed by central banks keeping historically low interest rates, often failing to reflect the imbedded risks.

Precarious as it were, things seemed manageable so long as low rates were more or less in line with low inflation. Now that inflation is hitting forty-year highs, itself propped up to a large degree by the unbridled borrowing at next-to-zero costs, staying on with the policy of cheap money casts a thick shadow on the reputation of the world's central banks and creates a jittery anxiety about inflation spinning completely out of hand.

Then “suddenly” Russia, the world's top exporter of hydrocarbons, launched a military operation in Ukraine, provoking fears of the biggest ever supply disruption and, by that alone, propelling the prices for oil and gas into the stratosphere. While this is probably not enough yet to trigger a global recession, it takes the whole situation perilously close to a breaking point. A potential supply slump amid already very high inflation, central banks poised to raise rates to prevent inflation from running out of control and the economy that has come to rely completely on incessantly low interest rates, have all conspired to create an eerie moment before the perfect storm.

There is still a slim hope that the markets fearing a recession will self-adjust and lower commodity prices—enough to allow central banks to regain control over inflation without raising interest rates to cause a sharp drop in economic activity. But this hope is threatened by the zeal of populist Western politicians to punish Russia at any cost. Any clumsy move now can trigger a chain of events leading to a global economic meltdown.

## **WHAT IF RUSSIA RESPONDS?**

So far, the Russian leadership has shown a rather restrained response to the international economic pressure limiting it initially to blocking access to Russian airspace for airlines based in “hostile” countries and restricting non-residents from selling their Russian assets. Russia then moved on to forcing European buyers of Russian natural gas to convert payments to rubles through a designated Russian agent (Gazprombank) before they get the title to the purchased gas.

This was a far cry from what had been long predicted by many Western politicians. They feared that Moscow would weaponize trade in energy and certain other commodities where it held strong or even commanding positions in the global market, such as titanium, aluminum, nitrate and potash fertilizers, rare gases, sapphire wafers for microchips, wheat, sunflower oil, etc. Even the recent drop in gas deliveries via the key Nord Stream 1 pipeline to Germany that has produced a radical spike in European spot prices and invoked fears of gas shortages in the coming winter season, was explained, however tongue-in-cheek, by a scheduled compressor maintenance: a Siemens turbine was sent to Canada, which buys no Russian gas at all, for inspection and repairs and got stuck there due to sanctions.

That is, until now, most of the restrictive measures by Russia have been precisely retaliatory. But what if Russia decides to force things? For example, it could announce its own embargo against everyone who adheres to the oil price cap imposed on Russia. To make its response asymmetric, Russia could add a threat to stop exporting gas, fertilizers, grain, rare gases, etc. to world markets, as well as require payment in rubles for all buyers from hostile countries. And to demonstrate its determination and the effectiveness of countermeasures, Moscow may begin to reduce supplies without waiting for the introduction of new sanctions. At the same time, having seized the initiative, Russia may want to leave the door open for a package solution on Ukraine and on the entire set of sanctions and countermeasures.

The removal of the bulk of Russian barrels, tons, cubic and nanometers from global commodity markets will result in the most dramatic price surge in all affected categories. Its far-reaching

consequences can emerge in the most unexpected places. For example, the 2010 drought in Russia resulted in a sharp decline in grain crops and a government ban on grain exports from Russia, which, in turn, led to the rise in the price of bread in the Middle East, seen as one of the catalysts for the Arab Spring uprising. Yet the biggest jolt this shockwave will send through the system will not be in the shortage of raw materials leading to a lack of power and heating and to production stoppages in core manufacturing industries. Rather, it will be a shock from a broader inflationary impact that could sway central banks to push interest rates aggressively. If the increase in rates is sharp (that is, if it brings the real interest rate back to or near the positive territory), it will cause a curtailment of most corporate investment programs, a long series of bankruptcies, and glaring fiscal cuts across the entire spectrum of state, regional, and municipal budgets. The world economy will collapse into a deep recession.

Granted, if Russia does not resume its exports soon, its economy (albeit one of the least leveraged) will be among the hardest hit. But we must keep in mind a much higher pain threshold for society as a whole in Russia, due to its highly centralized political and economic structure, as well as the traditionally high level of stamina and perseverance of the Russian people. At some point, if Russia feels that sanctions have gone too far, it may decide to try its luck with these economic weapons of mass destruction. True, it is not entirely clear why Russia has not yet attempted to play this card at the negotiating table, even before the launch of the special military operation in Ukraine.

### **A WHOLE NEW WORLD**

The risks to global economic stability and security posed by the conflict in Ukraine and subsequent Western sanctions on Russia are hard to overstate. Unfortunately, there is no win-win solution to this conundrum other than for all parties involved to reach a compromise, which is highly unlikely at this point.

If sanctions remain in place indefinitely, especially if combined with continued decarbonization policies in Europe and the rest of the Western world, Russia will inevitably seek to redirect the development

of energy delivery infrastructure to new markets in Asia. Meanwhile, pipelines already built to Europe (Druzhba, Soyuz, Bovanenkovo-Ukhta, Yamal-Europe, Nord Stream 1, Nord Stream 2 and, to a lesser extent, Blue Stream and Turkish Stream) will end up as sunk costs, some of them with negative returns.

Once burned in Europe, Russia will be wary of linking itself with large oil and gas pipeline projects to a monopsonist buyer in Asia, even if they are financed by Asian (Chinese) capital and will look for more flexible and diverse ways to monetize its hydrocarbon resources. It is likely to focus on LNG projects, the development of the Northern Sea Route, the construction of nitrogen fertilizer plants and gas-to-chemicals processing capacities for the production of polymers, and blue hydrogen projects. This would mean huge additional expenditures that might not be financially sound under normal circumstances, given the traditional raw material export alternatives. However, security considerations, sanctions and European environmental taxes will push Russia in this direction.

European consumers will also be paying hundreds of billions of euros in extra, often sub-optimal and otherwise unnecessary, capital expenditures and overseas LNG purchases, inevitably more expensive than Russian gas, given the already existing pipeline infrastructure. In addition, if the political push for the Net Zero energy transition is not tapered by the new reality (in fact, the opposite is quite likely), the lack of cheap Russian gas to plug the transition gap in the efficiency of “green” technologies will lead first to bringing back coal-fired and nuclear power generation and then to rushing in with more expensive half-baked “green” solutions. Obviously, this will make the achievement of the stated goals in the fight against global warming a lot more costly.

Ultimately, assuming the worst can be avoided, when the dust settles, the world will probably end up more divided, less secure, and trillions of dollars poorer. But it will be a whole new world.

That is, if the worst is avoided.