

SANCTIONS AND THE ECONOMIC CONSEQUENCES OF HIGHER OIL PRICES

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Sanctions against the Russian Federation are developing so fast that it is hard to keep track of them and even harder to see a consistent narrative as events unfold.

But there is one. Russia is the world's largest exporter of energy and commodities. A persistent balance of payment surplus is the source of its financial strength, in terms of both current income and the financial assets previously accumulated by "fortress Russia." Oil, gas, and coal exports constitute the most valuable revenue streams and are therefore prime targets of sanctions policy.¹

The problem is that energy sanctions will backfire badly if they lead to price increases large enough to derail the economic performance of sanctioning countries.

The sanctions imposed immediately after the invasion did not even include restrictions on commodity exports. They nevertheless affected energy: freezing the assets of Russia's Central Bank removed credibility from the threat of Russia cutting its own energy exports to inflict economic damage on sanctioning countries. Over the long term, the country may see its economic prospects reduced to selling raw materials on the cheap. Immediately after the first round of sanctions, spot demand for Russian oil dropped by approximately one-third (2.5 million barrels per day) as uncertainty over the new rules disrupted trade and financial flows.² The global price of oil jumped by 30 percent while Russian crude, shunned by traders, still sells at a 25 percent discount. How this dual price effect is managed is the hallmark of the success of energy sanctions.³

Markets, however, will adapt to circumstances. Without further disruption, such as direct energy sanctions, both the local discount and the global price increase will be competed away. Workarounds will fix the current state of regulatory flux. Trading will become efficient again. Russia's income flows would be restored.

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And so, energy sanctions have returned to center stage—with a twist, however. By early March, the US had declared a unilateral moratorium on all Russian energy imports; the UK announced the phasing out of Russian oil (not gas), the EU of two-thirds of Russian gas (not oil); and Germany added all Russian coal and gas as well as “almost all” oil imports to an expanding list of moratoria. The sanctions discussion has moved from a one-size-fits-all approach enforced by secondary sanctions, as in the case of Iran or Venezuela, to “sanction picking,” with individual countries or country groupings imposing restrictions they feel they can afford on selected commodity imports, including oil and gas.

In view of the global backlash rising prices can cause, is it a reckless gamble to continue the policy of escalating individual moratoria?

So far, oil prices have increased much less than natural gas (and coal) prices. Gas prices in Europe have roughly tripled over last year’s already exceptionally high average. They are currently trading at the equivalent of \$500-600 per barrel of oil. Oil prices are less removed from historical norms.

The impact of oil price increases on economic activity differs with circumstances. If the oil price is driven up by strong economic growth—as happened between 2004 and the Great Recession in 2008—consuming countries can cope with relatively expensive energy better than they can when high prices hit an already faltering economy (as was the case during the second oil price shock in 1979). This is a call for caution—but at a closer look, more so for China and non-commodity-exporting emerging markets than for the core members of the Western alliance. At the time of the invasion of Ukraine, Europe and the US were both bouncing back quite strongly from the depths of the pandemic-related recession; China’s economy remains constrained by its zero-COVID policy.

From a balance of payment perspective as well, China (and India) appears more vulnerable than Europe or the US: China’s net imports as a share of GDP are similar to those of the EU, but its oil consumption is rising; in the geographic boundaries of today’s EU, oil consumption peaked back in 1979; and in the US, exports and imports are roughly balanced.

There are two main transmission mechanisms for an oil price shock to affect economic performance immediately. The first is indirect, but relevant at this point of the cycle: high oil prices may influence inflation and therefore the interest rate needed to bring inflation down again. The second starts from the observation that it takes almost 70 liters (18 US gallons) of crude oil to produce \$1,000 worth of global GDP. Changes in the relative price of such an important input may weigh directly on global economic activity.

The indirect impact of oil prices via inflation is limited to periods of price increases. Once prices stabilize and fall, their impact on the rate of inflation reverses. The volatility inherent in many commodity prices—rising and faltering in quick succession—is the reason why central banks tend to exclude food and energy from their favorite inflation gauges. Sanction picking and the physical adjustments it triggers are likely to create an irregular, volatile pattern. Persistent, secular upward movements, however, will have to be managed.



The direct impact on economic activity is much harder to gauge. However, historic data suggest some breathing space. To see it, one has to keep in mind that the widely used comparison of oil prices over time in nominal terms is misleading. A \$100 oil price today is obviously not the same as a \$100 oil price ten years ago—but the difference is more than just inflation.

Every year, the efficiency with which oil is used, whether in transport or in the production of goods, increases, and it does so in a very regular fashion: every year the world needs about 2.2 million barrels of oil less to sustain the same level of global GDP.⁴ Factoring in these efficiency improvements together with changes in the consumer price index yields a more accurate comparison of oil prices over time. By this metric, the average price in 1979, the year when high prices are widely credited with having caused a recession, was the equivalent of more than \$250 per barrel in today's prices (2020). The highest nominal price ever recorded—\$148 in 2008—becomes almost \$220. And the (very stable) average annual prices during the high price period of 2011-13 translate to almost \$150 per barrel in today's terms. Note that this was a three-year period without a recession.

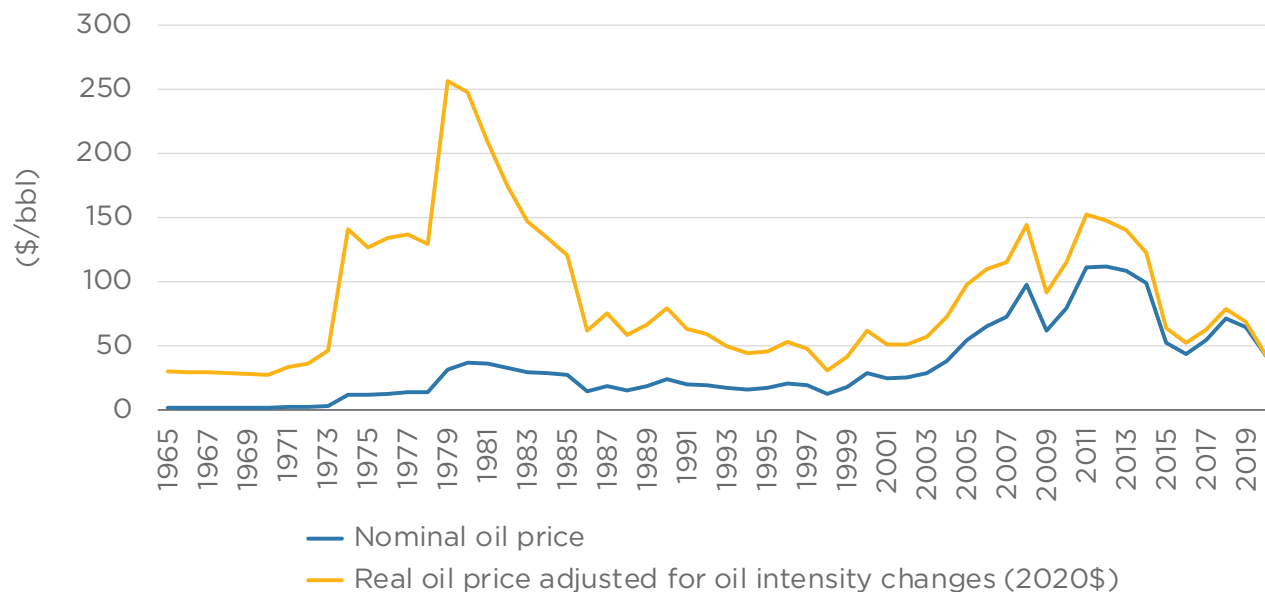
None of this is meant to replace detailed studies of the impact of current prices on global economic growth. But it provides a useful historical perspective, suggesting that there is no need to reach for the panic button at current prices, and especially not if the spike is short lived. From this perspective, it was not a reckless gamble for the US to “boycott” Russian oil imports at prices above \$100 per barrel; there may be room for other countries to follow.

Moreover, in oil (but not in gas) sizeable safety valves are available to manage the global price impact of additional moratoria. Examples of such valves include two groups of OPEC members (those under sanctions and those at the core of the organization), the strategic petroleum reserve, and a change in US energy policy to accelerate domestic production. That these resources would be available at different timelines and will not automatically resolve the need for infrastructure adjustment, however, is a timely reminder that replacing Russia's ex-China exports is more than a barrel-counting exercise.

There appears to be headroom for the anti-war alliance to scale down the consumption of Russian oil without triggering an adverse economic reaction. Relying on individual moratoria to maximize the discount of Russian oil may create problems with commitment control or the necessary global coordination. From the economic perspective alone, however, it is a road that can be traveled further.



Figure 1: Brent price adjusted for inflation and oil intensity



Notes

1. The World Trade Organization publishes data sheets that rank export values by category and allow for cross country comparisons: https://www.wto.org/english/res_e/statis_e/daily_update_e/trade_profiles/RU_e.pdf.
2. Data is based on International Energy Agency, Monthly Oil Market Report, March 2022, <https://www.iea.org/reports/oil-market-report-march-2022>. The IEA estimates that 1.5 million barrels per day (bpd) of the 2.5 million bpd is crude, the rest products. As a consequence, the IEA estimates 3 million bpd of production to be shut-in by early April.
3. The dual price effect of energy sanctions is discussed in a companion piece to the present analysis: Christof Rühl, “Energy Markets and the Design of Sanctions on Russia,” Center on Global Energy Policy, March 2022, https://www.energypolicy.columbia.edu/sites/default/files/pictures/DesigningSanctions_CGEP_Commentary_032522-4.pdf.
4. The nature of these efficiency improvements is explored in Christof Rühl and Titus Erker, “Oil Intensity: The Curiously Steady Decline of Oil in GDP,” Center on Global Energy Policy, September 9, 2021, <https://www.energypolicy.columbia.edu/research/report/oil-intensity-curiously-steady-decline-oil-gdp>.

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University SIPA, where he leads research focused on oil and gas and the energy transition. Rühl is an internationally renowned economist, specializing in macroeconomics and energy economics. He most recently served as Global Head of Research at the Abu Dhabi Investment Authority, where he created and managed ADIA's first global research team to provide economic, energy and geopolitical analysis to the Fund. Previously, he was Group Chief Economist and Vice President of BP plc for nine years, credited with a significant contribution to the global debate on energy, climate change, and the various links between energy and economic development. Rühl joined BP from the world of global economic policy, having served at the World Bank, including as Chief Economist in Russia and in Brazil, and at the European Bank for Reconstruction and Development. He started his career as an academic economist, first as a Research Associate at German Universities and later as an Assistant Professor at the University of California in Los Angeles. Rühl is published widely in his fields.



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