

The Effects of Russian Sanctions on the Global Economy

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Instant Insight

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About KAPSARC

KAPSARC is an advisory think tank within global energy economics and sustainability providing advisory services to entities and authorities in the Saudi energy sector to advance Saudi Arabia’s energy sector and inform global policies through evidence-based advice and applied research.

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Introduction

On February 24, 2022, Russia began a 'special military operation' in Ukraine, which quickly escalated into a militarized conflict across multiple fronts. The act drew immediate disapproval from the United Nations and led most members of the Western alliance¹ to impose sanctions on Russia, which has had negative spillover effects on the world economy.

This Instant Insight examines how oil sanctions on Russia could impact global oil markets and major global economic indicators. Russia plays a critical role in the global energy economy. In 2021, it produced about 14% of the world's crude and condensate output, with its crude exports averaging 4.7 million barrels per day before the onset of the Ukraine conflict.

As successive rounds of sanctions are imposed on Russia to encourage a resolution to the conflict, the energy sector is of particular importance to it as a key source of income. Without examining the mechanics or effectiveness of the individual measures taken, this exercise focuses on the impact of a disruption to Russian crude production.

Accordingly, we simulate the sanctions on Russia as a shock to Russian oil production and assess the effects these sanctions may have on Russia in the short and medium term.² We also trace the (unintended) spillover effects these simulated sanctions may have on the global economy. In doing so, we employ KAPSARC's Global Vector Autoregression (GVAR) model (Considine et al. 2021).

Our model simulations produce **three** critical insights:

1. Asia seems to benefit notably from oil sanctions on Russia.
2. The slowdown in the European economy due to Russian sanctions spills over negatively to macroeconomic indicators of Middle Eastern oil exporters.
3. Oil sanctions on Russia will cause a small but notable bump (5% per annum from its baseline equilibrium oil price) over the next two years.

GVAR Simulation Results

We simulate sanctions on Russian oil exports by imposing an exogenous one-time negative shock (approximately 1%) on real Russian oil production. This shock is realistic as (i) oil exports were officially left out of the first round of economic sanctions, but Russia shut in approximately 1% of its oil production, and (ii) Russia can direct most of its sanctioned oil to other customers in the East, albeit at a discount.

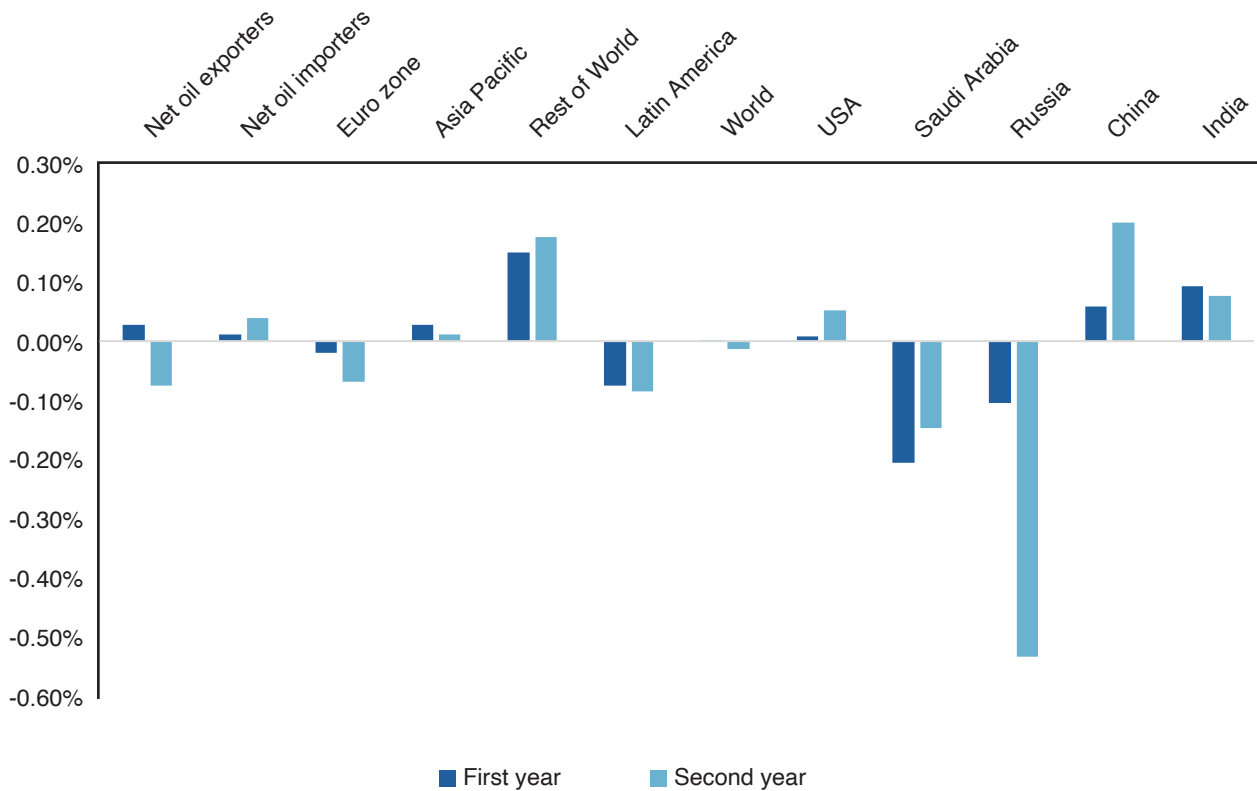
¹ The Western alliance includes NATO plus Australia, Japan, South Korea and Switzerland.

² We simulate Russian sanctions as a shock to Russian oil production of approximately 1 million barrels per day (MMb/d) for April and May falling to 300,000 b/d in June. According to the International Energy Agency (IEA), Western sanctions on Russia led the Russian Federation to shut in approximately 1 MMB/d in April 2022 to the lowest level since November 2022 (<https://warsawinstitute.org/oil-production-russia-declining/>). A July 2022 S&P Global Commodity Insight reports this may have dissipated to a shut in of 300,000 b/d (<https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/oil/080922-opec-crude-oil-output-makes-biggest-gain-in-five-months-but-gap-with-quotas-grows-platts-survey>).

Effects on GDP

As expected, the impact of Russia’s reduced income from oil is significant, especially in the second year of sanctions, with more than a 0.5% negative deviation from its expected gross domestic product (GDP) growth. The adverse effects of these sanctions on Saudi Arabian and Iranian GDP are also notable as the Eurozone, one of their main customers, suffers economically (Middle East Monitor 2022; Mint 2022). One immediate implication of the sudden and unexpected global shift in crude oil supplies for Saudi Arabia is a short-term loss in market share in India and China.³ This is reflected in a small -0.1% to -0.2% reduction in Saudi Arabian GDP relative to the GDP growth rates the Kingdom would have experienced had the shock to Russian oil production not occurred. While we expect the oil price to increase following sanctions, India and China’s GDP are expected to benefit as these two countries now have access to discounted oil. The overall effect on global GDP, however, is minimal (Figure 1).

Figure 1. Effect of sanctions on Russian oil on real global GDP.



Source: KAPSARC global oil market simulation, June 2022.

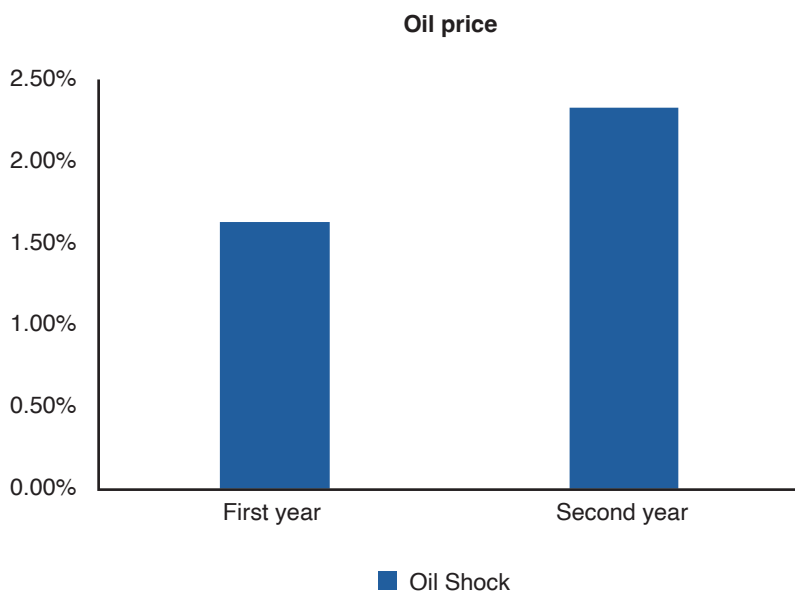
Note: Aggregate response over eight quarters. The shock represents a single, one standard deviation shock from the baseline (1% of Russian production) and a sanctions regime that does not last for more than one quarter. As a result, the simulation is likely to underestimate the effects of the sanctions that are actually occurring.

³ It is important to mention that the results reported are relative to our base case or reference case, which reflected a high oil price and the tight market that existed before the initial shock to Russian crude oil flows.

Oil Price

Russian oil sanctions result in more than a 2% increase in Brent oil prices in the second year compared to its baseline growth.⁴

Figure 2. Effect of sanctions on oil prices.



Source: KAPSARC global oil market simulation, June 2022.

References

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⁴ The slight 1%-2% increase in real oil prices results in a minor reduction in total world oil demand relative to the baseline, or reference case, production levels. This is reflected in a reduction in the GDPs of the net-exporting countries in the second quarter following the shock.



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