The ban on Russian gas, oil and coal: A cost-benefit analysis

Short note written for Members of the European Parliament

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March 28, 2022

Introduction

Several governments have argued repeatedly and forcefully that a European ban on Russian energy imports would be ineffective and too costly. This is most emphatically ***not*** what the available estimates from independent professional economists lead us to expect. This short note summarizes the key arguments made by professional economists on the two main questions. First, it argues that, unambiguously, the ban would be highly effective at harming Putin and Russia's economy, which according to some estimates could result in a 40% fall in GDP. Second, it argues that the pain to Europe's economy, and most notably Germany's, would be manageable with an estimated decline in GDP between 0.5-3.5%.

An oil and gas ban would cause massive pain to Russia's economy

To use a Dutch saying, the current sanctions have been like "mopping the floor with the tap open"; we have blocked the reserves of the Russian Central Bank but are sending large sums of hard currency in the form of oil, gas and coal payments to Russia. Already, from the start of the war until today (the 28th of March) we have transferred roughly 21 billion euros – an injection of 700 million euros per day into the currency-starved Russian state.[1] This hard currency allows the Russian Central Bank to maintain financial stability - indeed, while the ruble collapsed by 70% after the invasion, it has now recovered most of this drop, a clear sign there is no risk of financial collapse.

Moreover, historically, the budget of the Russian Federation has been 40% funded by energy exports.[2] The share is probably even higher now. Without this inflow of hard currency to back up the ruble, any effort by the Russian government to pay salaries with unbacked paper will translate into hyperinflation.

Two of the world's foremost Russian economists agree on these points.[3]

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[1] Source: CREA

[2] https://finance.yahoo.com/news/russian-central-bank-allows-exporters-081913016.html

[3] https://spiegel.de/wirtschaft/oel-und-gas-aus-russland-warum-ein-embargo-wladimir-putins-krieg-beenden-koennte-a-9537c522-5f56-4856-97bc-86080c2b7028

Some claim Russia will sell its oil and gas to China and other countries. However, Europe accounts for 49% of Russian oil and 74% of Russian gas exports.[4] Exporting gas by LNG tanker is significantly costlier than by pipeline, and the infrastructure takes a long time to build. Moreover, secondary sanctions may be employed. In the case of Iran, a good example of restrictions on energy exports,[5] oil production declined from around 6 million barrels per day at the time of the Islamic revolution (1979) to 2 million in 2020, with over half that decline (from 4 to 2 million barrels per day) happening during the 2016-2020 re-imposition of the embargo.[6] That Putin expects the losses resulting from an embargo to be large is further demonstrated by one clear fact: the tap hasn't been turned off by him.

How large would the losses caused by a full embargo be? A model developed by Robin Brooks, Chief Economist of the IIF, the financial industry association, projects a 30% decline in GDP for Russia this year, while 'an embargo would see an even bigger fall, possibly in excess of -40%.'[7] - making the pursuit of this war virtually impossible.

An oil and gas ban would cause limited and bearable economic costs to Europe's economy

Available estimates suggest that the impact would be a loss of between 0.5-3.5% of German GDP. It would probably be less elsewhere, as Germany's economy is one of the most dependent on Russian energy. These are non-negligible costs, but they are a far cry from anything that justifies these fear-mongering claims. The existing independent studies are unanimous:

- State-of-the-art macroeconomic analysis which includes (a) worst-case scenarios; (b) impact of cascading effects through supply chains; (c) impact on inflation-adjusted, real quantities; (d) parameter uncertainty; and, (e) in more recent analysis,[8] possible demand-side effects estimates the hit to German GDP between 0.5-3%. [9]
- Goldman Sachs assumes that even when little adjustment takes place, a loss of at most 3.5% of GDP is to be expected. [10]
- The ECB calculates a 1.4% hit to euro area GDP in the most severe scenario of energy ban.[11]

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[4] Source: US Energy Information Administration

[5] Source: Congressional Research Service

[6] Source: IMF via https://www.cnbc.com/2021/03/23/these-6-charts-show-how-sanctions-are-crushing-irans-economy.html

[7] https://twitter.com/RobinBrooksIIF/status/1508009547708964865/photo/1

[8] See https://twitter.com/christianbaye13/status/1505928385788362756.

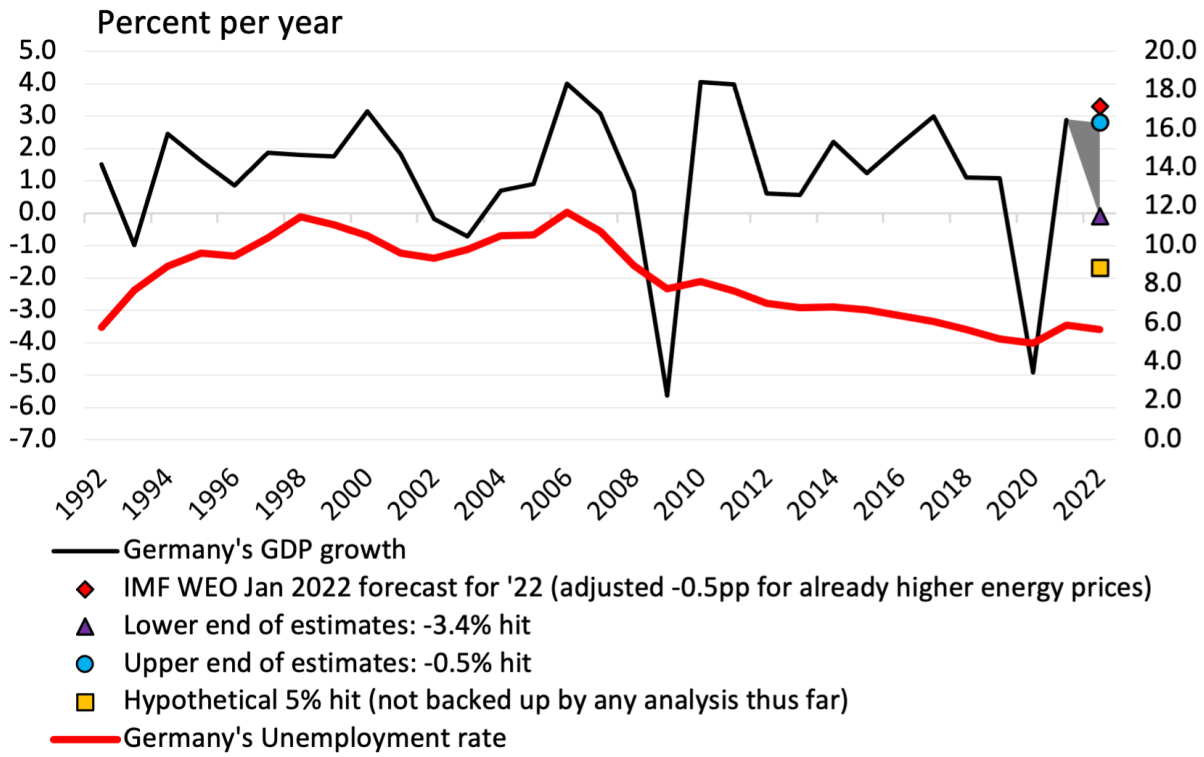
[9] https://www.econtribute.de/RePEc/ajk/ajkpbs/ECONtribute_PB_028_2022.pdf

[10] https://benjaminmoll.com/wp-content/uploads/2022/03/GS_Russian_Gas.pdf

[11] Source:https://www.ecb.europa.eu/pub/pdf/other/ecb.projections202203_ecbstaff~44f998dfd7.en.pdf

- Bruegel describes how Europe can do without oil and coal and without gas from Russia.[12] [13]

Even the worst-case scenarios for any of these forecasts are significantly milder than both the great recession and the COVID shock, and amount to losing a year or two of growth. Is this catastrophic?



Obviously, the consequences will be harder on certain industries and groups. The hit would be greater for the steel and chemical industries. Lower income individuals would be particularly vulnerable to such a shock.[14]

However, examples of such heterogenous effects already exist. With the Covid-19 pandemic, a shock which caused economic damage much larger than the likely effect of an embargo, the travel and hospitality industries were hit relatively hard and lower income individuals were particularly affected. That crisis showed that our governments have the appropriate policy tools to deal with these impacts, and given the manageable aggregate impact, they can afford to do so. We know how to cushion the impact on unemployment and incomes of individuals – we have done this before (because of e.g. Kurzarbeit, there was only a minimal increase in unemployment in Germany, see chart above). We could also directly protect the businesses that are most affected for example by funding any short-term production stoppages. Some assert that manufacturing is more difficult to assist than services, but there are no reasons why this would be true.

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[12] https://www.bruegel.org/2022/03/can-europe-manage-if-russian-oil-and-coal-are-cut-off/

[13] https://www.bruegel.org/2022/02/preparing-for-the-first-winter-without-russian-gas/

[14] A detailed discussion of the distributional issues was included in the analysis done by German academics (https://www.econtribute.de/RePEc/ajk/ajkpbs/ECONtribute_PB_028_2022.pdf).

After a hypothetical 2% hit to GDP, a deficit-financed support designed to prevent any second-round effects would raise debt-to-GDP ratios by only 2 percentage points (from 71 to 73% in the case of Germany). The time to use this fiscal space is surely now.

Those who fear an economic collapse precipitated by the oil and gas ban generally think that it is hard to substitute Russian gas. But the marvel of market economy is its adaptability. Alternative supply streams will be activated; amongst others, sources of supply can be ensured through the import of LNG and usage of existing storages of 'cushion gas'[15]. Demand will adjust. Production processes will change over time. Even a small degree of substitutability will make a world of difference.[16] There are plenty of real-world examples of how production processes adjust, often in extreme circumstances.[17] [18] Some firms may face short-term interruptions, others may not adjust and will be replaced by new, more flexible firms. This change is costlier for the incumbents, so it is not very surprising that it is being resisted.[19]

At any rate, most of the pain is short-term. The economic adjustment means that the embargo's costs decline over time. In the long run, this policy will speed up our transition towards a greener, cleaner, and more sustainable economy.

The time is now

Those who fear the risks of acting must consider the enormous costs of doing nothing: the risk of being at the mercy of Putin imposing an energy shock without warning, the consequences of multi-billion-dollar subsidies to the Russian war effort and, as the war drags on, the ever-greater risk of spill-over effects. The truth is that the point of maximum impact is right now. Putin has brought mass murder and destruction on an industrial scale to Ukraine because the Ukrainian people chose to be part of our free Europe. Our "leverage" so far has done nothing to stop this, perhaps partly because tools that supposedly cannot be used, can no longer be considered as leverage. We must penalize the atrocities now. Down the road, the West can create positive incentives by using the prospect of sanctions relief, if it so wishes. Weakening Putin financially will strengthen Ukraine's bargaining position. To increase pressure on Putin, Europe could commit to a pre-announced schedule of sanctions.[20]

The deep anxiety amongst certain policymakers is that Europeans do not support this course of action. The truth is that, despite the campaign of fear, consistently large majorities of Germans support the ban.[21] [22] Moreover, they are more likely to support clear action on Russia than a drawn-out conflict.

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[15] https://www.economist.com/europe/2022/01/29/how-will-europe-cope-if-russia-cuts-off-its-gas

[16] https://www.nytimes.com/2022/03/15/opinion/germany-russia-ukraine-gas.html

[17] https://benjaminmoll.com/wp-content/uploads/2022/03/RussianGas_Substitution.pdf

[18] https://www.tandfonline.com/doi/abs/10.1080/09692290.2019.1693411

[19] https://twitter.com/BachmannRudi/status/1502833924527075331

[20] https://www.project-syndicate.org/commentary/graduated-sanctions-schedule-for-russian-oil-and-gas-by-lukasz-rachel-and-moritz-schularick-2022-03

[21] briq policy monitor via https://twitter.com/Armin_Falk/status/1506614466770841605

[22] ZDF, Polibarometer via https://twitter.com/kniggem/status/1502798251220770818

Thus, doing everything to stop the war now, by taking the most aggressive action possible immediately, is the best way to ensure political support.

The dependence on Russian energy is not an accident – it is a direct consequence of wrong-headed policies that have been pursued. The question of whether or not someone must bear the cost for these errors is not a political choice; the people of Ukraine are already paying the highest price. However, Europe's addiction to Russian fossil fuels was a double-edged sword – now we can use it to fight back against Putin.