

CEPR/EAERE Webinar on Climate Policy Climate Policy in times of war: Make the Green Deal strong again!

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The targets of the European Green Deal require a substantial reduction of oil and gas imports even before 2030. However, institutions and policy instruments which would enable the European Union (UE) to implement their targets are still weak. The planned Emission Trading System (ETS) for road transport and buildings will be likely implemented with a price cap; so far, the EU has not been able to coordinate the purchases of member states at the international oil and gas market; the diversification of gas and oil imports remains a high priority.

For this Ninth CEPR/EAERE Webinar on Climate Policy, [Veronika Grimm](#) (Friedrich-Alexander-Universität Erlangen-Nürnberg), [Philippe Martin](#) (Sciences Po and CEPR) and [Georg Zachmann](#) (Bruegel) discussed strategic options for EU's climate policy and energy security. The roundtable and Q&A session with the audience was moderated by [Ottmar Edenhofer](#) (Potsdam Institute for Climate Impact Research, Mercator Research Institute on Global Common, CEPR and Climate Change RPN Member).

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Key Points of the Webinar

- **A grand bargain to steer through the European Union's energy crisis¹**
 - **Current status of the global energy market**

Russia is a major oil exporter with 8 to 9 million barrels exported per day (mb/d), with a third going to the EU and more than half to, as one might call it, the pro-Ukrainian coalition.

Exports to China - through the ESPO pipeline and the Kozmino port in the Pacific - have been unaffected by the Western Sanctions since the beginning of the war and will probably remain so. Exports through the Druzhba pipeline were flowing at usual rates until June 2022, however, since August, Russia has stopped transiting oil from the Southern arm of the pipeline, which delivers oil to Czechia, Slovakia, and Hungary. Exports from Western ports in the Baltic and Black Sea to the EU have slowly trended downwards, while imports from non-EU/G7 countries, such as China and India, increased by 1mt/week, highlighting a re-rooting pattern. On the EU side, only a minor reshuffling took place within the union.

Europe is, even more strikingly, the largest market for Russian natural gas exports, both in volume and in value. Since the summer of 2022, Russia started to significantly reduce exports to the EU and today reaches around a quarter of the usual amount, resulting in remarkably high prices.

Finally, on the coal side, the share of imports from Russia to the EU has increased in the past decade. However, since August 2022, the EU banned imports, leading to an important re-shuffling of coal flows across the globe.

Russian revenue on oil, gas and coal has not gone down despite European efforts to at least discuss sanctions, while the EU has paid a very high price. Sanctions on oil will take effect from December 2022 for crude oil, and February 2023 for products. The sanctions that the EU have currently agreed upon are, however, going to undermine exports to non-EU countries through secondary sanctions on shipping, which will significantly reduce the amount of Russian oil on the market by an estimated 3 to 5 mb/d. This has the potential to upset trading partners, leading to macro- and political consequences. Alternatively, a price-cap, which would allow oil exports to other non-Western countries, would--if sold by Russia below a certain price - appear as a complex tool, and would be administratively difficult to implement. On the other hand, setting up a tariff on oil imports would be challenging at the political level, but appears to offer a better cost/benefit ratio for the EU.

Regarding gas, one may wonder if the EU stating a progressive phase-out of imports of Russian gas in the medium term is credible, and whether this might not generate a risk of Russian *divide-and-rule* behaviour, while the EU would have a bigger advantage in a joint solution that manages Russian market

¹ McWilliams, B., G. Sgaravatti, S. Tagliapietra and G. Zachmann (2022) 'A grand bargain to steer through the European Union's energy crisis', Policy Contribution 14/2022, Bruegel

powers. It highlights more generally a need for the EU in this new energy world to apply diversification tools to question the unsustainable, one - sided dependencies that have prevailed in the past.

- o **Responses to an unprecedented and deep-rooted crisis**

The EU's energy system is facing unprecedented physical and institutional stress. Aside from the Russian shock, it can also be seen as a crisis that stems deeply from the roots of the European energy system and of the union's political landscape. This conflict indeed takes place in a post-covid world characterized by a demand boom and lower past investments leading to tight global markets (LNG, refinery capacity, *etc.*). Additionally, unfortunate coincidences must be considered, such as France's nuclear power crunch and droughts lowering Europe's hydropower output. The risk currently at stake is to fall into a system where members will try to subsidize energy domestically, and where governments intervene greatly in the energy markets, with limited coordination. This creates a risk of substantially undermining the ability of Europe to cope with the current crisis in the short term, and to implement an efficient decarbonization pathway in the long term.

The problem requires a complete response: on the demand side, the hope would be to find tools to encourage individual consumers to reduce consumption through savings compensation for households, buying out legacy industrial contracts or unlocking politically difficult measures. On the supply side, remaining available options include exploring fuel switching potential, joint purchasing, and a change in regulatory measures. Finally, there are strong positive spillovers of the actions that members states are doing on the demand and supply sides. Individual governments do not necessarily have a strong incentive to do too much on their own, as it will reduce European prices. There is, in that regard, a need for some sort of *great bargain* - which could potentially happen through an energy security fund - and for some mutualization to compensate countries bringing more to the table.

- **The energy crisis and relief packages in Germany**

- o **Impact of current prices on the German electricity mix**

In Germany, electricity consumption is projected to strongly increase by 2030. Gas plants will be needed to substitute coal and nuclear sources, and to deal with the fluctuation of a switch to renewable energy in the longer terms. In the current situation, however, the EU green deal is under great pressure coming from a variety of factors: the war in Europe, high energy prices, inflation, supply chain pressure, as well as shortages of raw materials and skilled workers.

In the short run, gas consumption needs to be avoided in Germany to ensure a safe situation by winter. In that regard, there is an urgent need to activate available capacity by shifting the merit order outwards instead of abolishing it. In other words: both longer lifetimes of nuclear plants and the reactivation of some coal power production could help in the short term. The current question then is not only how long the coal power plants will be extended and stay in the German electricity mix, but how much these plants

will produce, which will depend on the relative prices of coal and gas power production. If gas prices remain high or increase, it may generate an incentive to call for more coal power plants also in neighbouring countries. This will greatly put CO₂ emissions under pressure and increase prices in the ETS. In parallel, there is a need for increased incentives to build gas power plants and to make hydrogen available, including long term contracts or network expansion.

- o **Relief package and alternative measures proposal**

The situation is challenging for households in all European member states. At the German level, the financial burden experienced by those heating with gas is already particularly high. In that regard, the third relief package of 65 billion euros decided by Germany appears as incomplete and vague. While the package notably includes support for transfer recipients, pensioners, and students, help for gas customers is missing. On the other hand, the increase of CO₂ prices in the mobility and heat sector by 5 euros in 2023, has been suspended. Furthermore, the different possible proposals on the table for intervention in the market design are still unclear and likely to worsen the situation: the establishment of price caps for gas used for electricity production - to make the marginal technology cheaper and decrease prices - might on the contrary increase the incentive to consume electricity or gas. A second type of proposal--the instauration of different markets for technologies with high and low marginal costs--appears difficult to implement without severe interventions, if one considers trade beyond power exchange, long-term contracts, *etc.* Finally, the taxation of inframarginal technologies could be a less harmful policy option but might generate low revenues.

Alternatively, one recommendation would be to reduce demand for electricity and gas through price signals, while simultaneously supporting low- and medium-income groups. Secondly, a massive and fast increase in the electricity supply must be put in place. One could also have measures to extract infra marginal profits, however, implementation is still complicated to assess. Finally, a measure could be to jointly procure gas among EU member states and combine it with contracts on hydrogen and discussions on critical raw materials.

- **Macro-economic dimensions the energy crisis**

- o **The impact of the conflict on inflation**

Inflation started before the beginning of the war in Ukraine. 5% of inflation was indeed already observed by the end of the year 2021, notably due to post-covid increase in demand and issues in the global supply chain. A part of this evolution can be linked to the increase of energy prices related to the preparation of the war the Russians, the latest accelerator of an existing trend. To date, we are currently reaching a 9% inflation rate in the euro zone, of which 4% or more (if one considered the contagion through the supply chain towards other sectors) are directly linked to energy.

The mechanisms of inflation are complex and not deeply understood by macroeconomists in the

exceptional context we are currently experiencing. Explained through the neo-Keynesian Philipps curve, its dynamics consider 3 important components: the first is the cost push shock, constituting an important part of the issue here. Secondly, one can observe what is happening on the labour market through wages, which do not, for the moment, indicate strong signs of contagion. The energy shock also constitutes a negative demand shock for households with real income and consumption is falling in many parts of the eurozone. The third dimension is inflation expectations, for which, - unlike in the US - not a lot of information is available in the EU, and for the which the main concern for the European Central Bank (ECB) is their de-anchoring.

o **A complex identification of policy responses**

A big part of the energy shock, which is occurring at different degrees in different countries, has been absorbed by fiscal policies: from the approximately 3% GDP of the transfer of purchasing power to the rest of world and partly to Russia, one can indeed consider that 2% has been absorbed by policy and 1% by households.

Two different types of fiscal measures must be highlighted. On the one hand, one option is to put in place transfers to the most energy dependent households. However, it is hard to have a full price signal and a challenging targeting to put in place, as there is important heterogeneity not only in terms of income but also in terms of locations and equipment (incl. vehicles, heating systems, *etc.*).

On the other hand, the second policy option, which is less preferred by economists, considers price caps and rebate measures. These non-targeting price cap policies have a direct impact on the inflation rate, meaning that most of the social benefits that are indexed to inflation are not increasing, thus leading to less spending. This reduction of inflation also constitutes a positive externality for the rest of the euro zone. However, EU members are not supposed to use fiscal instruments to reduce inflation, which might represent an issue for the Commission in the medium term. Furthermore, these measures also have both a fiscal cost, and from a macroeconomics point of view, an efficiency cost by sending a wrong price signal. However, we do not know the size of this inefficient cost. We are indeed lacking evidence and estimates for such an important increase in the price elasticity for households. We may wonder in that regard if the excess demand, for which a price cap is also criticized, would be that important in the short term when the supply curve is vertical and the demand curve is also almost vertical (as the price elasticity is low in the short term). In other words, in truly special circumstances, it appears complex for economists to identify robust policy recommendations.