

EU ENERGY AND CLIMATE SECURITY STRATEGY TO COUNTER THE RUSSIAN AGGRESSION IN EUROPE

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The Russian invasion in Ukraine has led to the crumbling of Europe's long-standing *Ostpolitik*. Accommodating Russia, even when its foreign policy undermines European security, is no longer defensible. The EU collectively and many member-states individually have decided to cut down and eventually end their economic dependence on Russia. In addition, the COVID pandemic has underscored the importance of environmental factors, including the risk of increasing deforestation and wildlife intervention, as a trigger for public health, economic, political and social crises. **Climate change** and sustainable development will increasingly underpin the national security of the 21st century. Meanwhile, the **concentration of mineral resources used in renewable energy technology** in the hands of authoritarian states such as Russia and China will continue to pose energy security risks and could undermine the viability of the energy transition in Europe.

The energy crisis that began before the war and was precipitated by the Kremlin to pressure Europe or some of its members into complicity, is a stark reminder that the energy policy trilemma of achieving affordability, reliability of supply and environmental sustainability, is far from solved. The spike in energy prices aggravated by the slow pace of energy transition and the overreliance on Russian fossil fuel imports have, thus, clearly demonstrated the need for a **new European energy and climate security strategy**.

The European Green Deal should be the cornerstone of this new European strategy¹. However, its implementation will have to overcome the considerable headwinds of climate skepticism and opposition in EU societies, fueled by domestic and foreign political pressure. The political fallout from the current energy crisis and the specter of inflation getting out of control requires strong political will to power through necessary reforms that maintain energy security without comprising the climate transition process.

KEY POINTS

- The Russian invasion in Ukraine has led to the crumbling of Europe's *Ostpolitik*.
- The current energy and geopolitical crisis has demonstrated the need for a new **European energy and climate security strategy**.
- European governments are not only struggling to guarantee a **reliable and cheap supply** of energy but are also failing to overcome a **fossil fuel lock-in**.
- The most effective way to stop the Kremlin's aggression is for Europe to **ban oil and gas imports** from Russia that could cripple the Russian economy in **8 to 11 months**.
- There is a need for a **common EU gas purchasing mechanism** to secure gas stocks and ensure alternative gas supplies.
- The EU should replace natural gas in the energy mix with locally-sourced **renewable energy**.
- There is an urgent need to screen and block all Russian strategic investments in Europe tied to Kremlin-linked companies.
- In the long run, a full fossil fuel phase-out is the most **sustainable way to improve energy and climate security**. Decarbonizing energy markets will also deliver a blow to the Kremlin's economic and political influence in Europe.

¹ Stefanov, R. and Vladimirov, M., "The missing element of Europe's energy and climate security policy," *Euroactiv*, January 31, 2022.

Redefining Energy and Climate Security

European governments are not only struggling to guarantee a reliable and cheap supply of energy but are also failing to overcome a **fossil fuel lock-in**. Despite the unprecedented economic sanctions against Russia, European governments have more or less continued buying Russian oil and gas. Embracing short-term political interests and Russia-linked entrenched oligarchic networks, European governments are stalling at efforts to diversify their dependence immediately away from Russia². This is especially visible in the case of **natural gas** where Gazprom has actually increased exports to Europe since the war started in late February 2022.

The European Commission's proposal to reduce Russian gas imports by two-thirds by the end of 2022 is already difficult even with dedicated and coherent efforts across the continent. Mixed signals from European capitals on their readiness to change course on Russian energy makes the **EU's mission impossible**. The Kremlin has proven that it can masterfully exploit internal European divisions on energy and still have strong leverage over the national energy champions in most EU countries.

Many governments in Central and Eastern Europe, including Bulgaria, Hungary, Greece, Romania, Slovenia and Slovakia, are also doubling down on **gas infrastructure investments**. The latter come on top of the already-built TurkStream gas pipeline, Nord Stream's smaller but equally detrimental-to-European-energy-security twin project in the Black Sea. This wasteful gas gamble actually increases the dependence on Russia by up to 50%, stalling efforts to diversify supply and complete the European integration of isolated gas markets.

Redefining the European energy and climate security strategy would require a comprehensive set of policy measures that include:

1. Countering the Russian aggression in Ukraine by cutting Russian oil and gas imports by 90% by the end of 2022;
2. Implementing short, medium-term and long-term actions to diversify the energy supply and improve Europe's resilience to supply shocks;
3. Reversing the fossil-fuel lock-in and accelerating the climate transition of the European economy.

Energy and climate security risks will not end with gas supply diversification. New emerging risks related to the

dependence on mineral resources linked to the process of energy transition is looming next on Europe's agenda. Navigating through these challenges requires the development of innovative and actionable policy instruments for climate change mitigation and diagnostics.

Countering the Russian Aggression in Europe

The Case for an EU Ban on Russian Oil and Gas Imports

In the wake of the Russian aggression, Europe found itself painfully unprepared to defend its interests and values, falling victim to its deeply rooted dependence on Russian oil and gas. A month into the war in Ukraine, the EU keeps holding back on **critical sanctions against the Russian regime that target the energy sector**. Instead, it continues to be a primary source of funding for Russia's military invasion through hefty payments for oil and gas imports.

The current Western sanctions against Russia are not enough to stop the Russian war in Ukraine. In fact, they may be aggravating the situation by consolidating the power of the Kremlin regime, while at the same time undermining the macroeconomic stability of the global economy. As tensions rise between Russia and the West, energy prices have increased, weakening an already fragile post-COVID economic recovery and strengthening inflationary pressures. This may lead to a popular backlash against sanctions, in the short term, and against the European Green Deal in the long run.

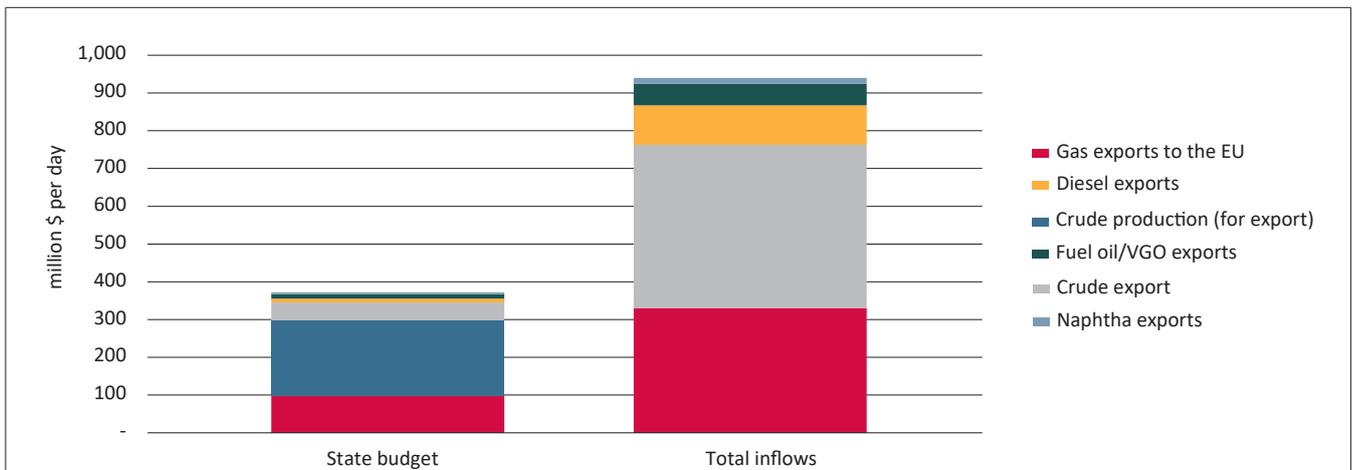
Hence, despite the immediate economic pain, the most effective way to change Kremlin's policy in Ukraine would be for Europe to ban oil and gas imports from Russia. This would spell **the end of a three-decade-long process of Russian economic and political accommodation** with the West after the Cold War. Russia's political elite established trusted relationships with Western leaders that matched the country's increased access and integration into the global financial and trade system. Estimates show that close to \$1 trillion were moved out from Russia and invested all across Europe after 1991³. The Russian capital inflows served to develop intricate **state capture networks of economic and political actors** that the Kremlin leveraged through its domestic and external security services to achieve an outsized political influence over the strategic decision-making of European states⁴.

³ Novokmet, F., Piketty, T. and Zucman, G., *From Soviets to Oligarchs: Inequality and Property in Russia 1905 – 2016*, WID.world, Working Paper Series N° 2017/09.

⁴ Shentov, O., Stefanov, R., and Vladimirov, M., *The Kremlin Playbook in Europe*, Sofia: Center for the Study of Democracy, 2020.

² Conley, H., Ruy, D., Stefanov, R. and Vladimirov, M., *The Kremlin Playbook 2: The Enablers*, New York: Rowman & Littlefield, 2019.

Figure 1. Oil and Gas Related Monetary Flows into the Russian Economy at Current Crude Oil and Gas Prices



Source: CSD calculations based on various industry sources.

The Kremlin believed that by extending these informal networks, it would preserve its key position on energy and other commodities markets in Europe, and thus, guarantee that the revenue from their sales maintain the stability of the domestic, political and economic system in Russia. In essence, Russia turned into a typical petro-state similar to Saudi Arabia and Venezuela in relying on the sale of energy for the projection of power and maintaining regime stability. Even more importantly, Moscow calculated that this growing economic interdependence would prevent any coordinated action by the West in pushing against the Kremlin's revisionist foreign policy.

It is not surprising then that when Putin decided on the invasion of Ukraine, he did not expect a resolute Western deterrence. He misjudged that European unity would crumble under the pressure from rising energy prices and the involvement of economic and political networks in urging national governments to preserve economic ties with Russia.

The Kremlin underestimated how far the sanctions would go in aiming to cripple Moscow's ability to finance the occupation of Ukraine and weaken the very foundations of the Kremlin's kleptocratic regime. The survival of the Russian economy, and by extension Putin's regime, now hangs by the thin thread of oil and gas exports to Europe and China. Cutting Russian energy exports to Europe has become the weapon of last resort for Europe to stop the war in Ukraine.

For the Kremlin, the energy supply to Europe represents more than **half of Russia's total gas exports and 80% of total crude oil sales abroad**⁵. Moreover, gas exports are

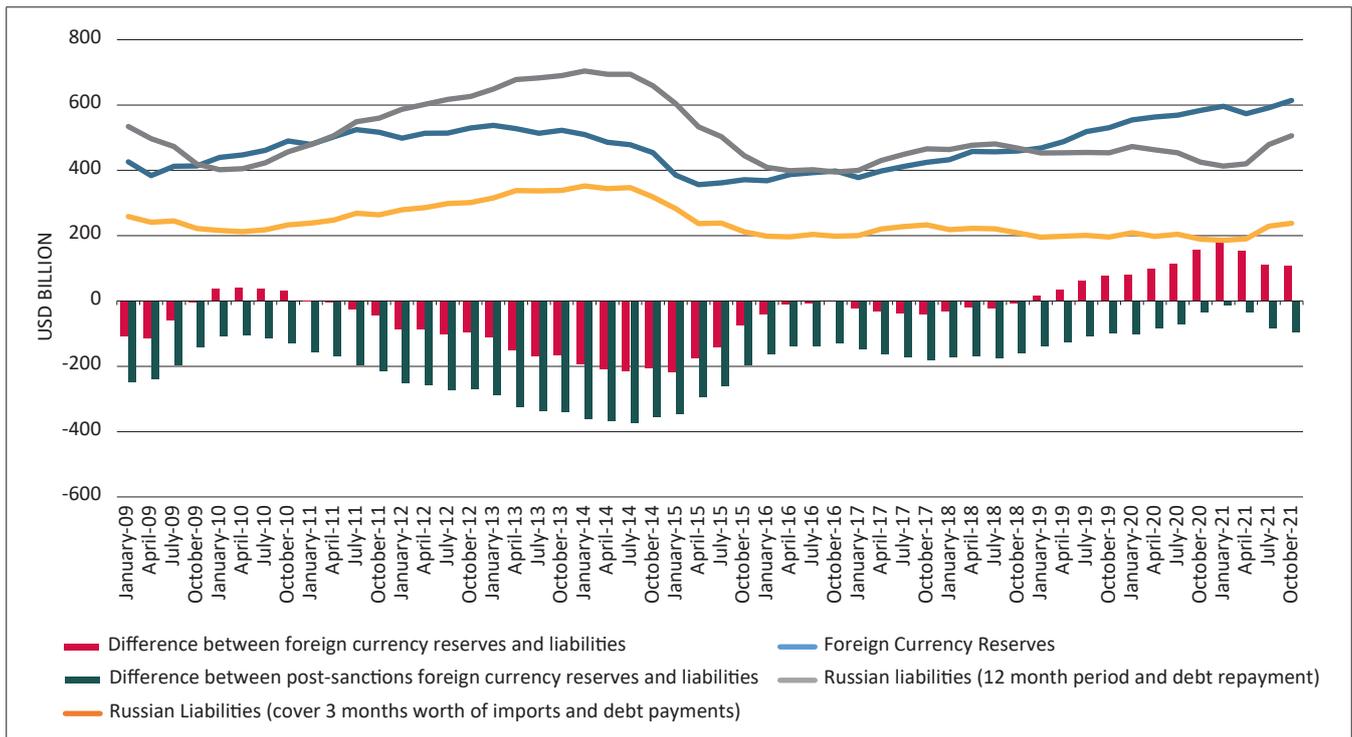
almost exclusively via pipelines and cannot be easily re-directed to other markets, while European countries can more readily replace Russian oil with alternative deliveries, although at a cost. In fact, both the International Energy Agency and the EU are preparing detailed plans on how to reduce by at least 50% the dependence on Russian gas by the end of 2022.

Currently, taking into account the exports of crude oil, oil products and natural gas to the EU, these contribute to almost USD 400 million per day of state budget revenues. Total inflows into the Russian economy add up to over USD 900 million per day. The oil and gas revenues translated into 36% of total budget revenues in 2021, and more than half of those came from the exports to the EU. Although the oil and gas sector makes up directly only around 15% of the country's GDP, an estimate of the impact of oil and gas revenues in powering the non-oil industries and the overall large public spending indicate that up to **57% of Russia's GDP depends on oil and gas**. It can be argued that the recent spike in oil and gas prices provide strong support for Russia's economy and most importantly support the Kremlin's war effort as was the case in 2008 in Georgia and 2014 in Crimea/Donbass.

So how vulnerable is the Russian economy to an EU ban on oil and gas imports? And how likely is it that the Kremlin regime will shift course on Ukraine if it is implemented? The designation of the Russian systemic banks (Sberbank, VTB, VEB, Gazprombank, Otrkitie and others) holding 80% or more of the country's financial assets and the most powerful oligarchs close to the Kremlin, and the freezing of all dollar and euro-denominated Russian central bank-held foreign currency reserves has pushed Russia into a financial meltdown. In addition, the withdrawal of some of the biggest Western oil and gas investors from the Rus-

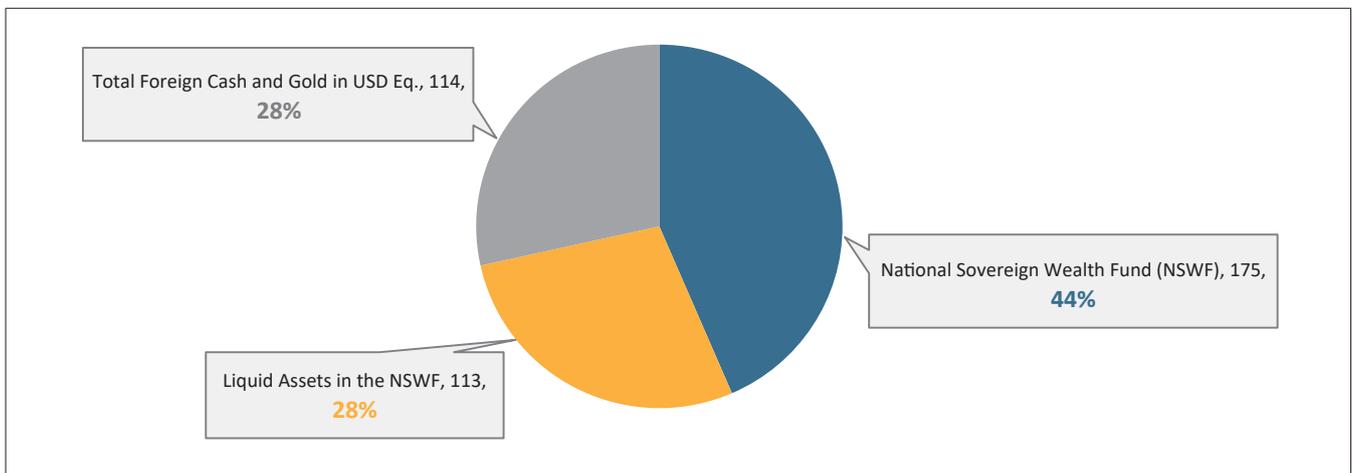
⁵ Exports to Western Europe, at 120bcm in 2020, represented 55% of total exports, at 220 bcm in 2020, according to Gazprom's 2020 annual report.

Figure 2. Russian Macroeconomic Vulnerability: the Sanctions’ Impact on Foreign Reserves



Source: CSD estimates based on statistics from the Russian Central Bank.

Figure 3. Russian Central Bank Assets at Disposal (USD Billion)



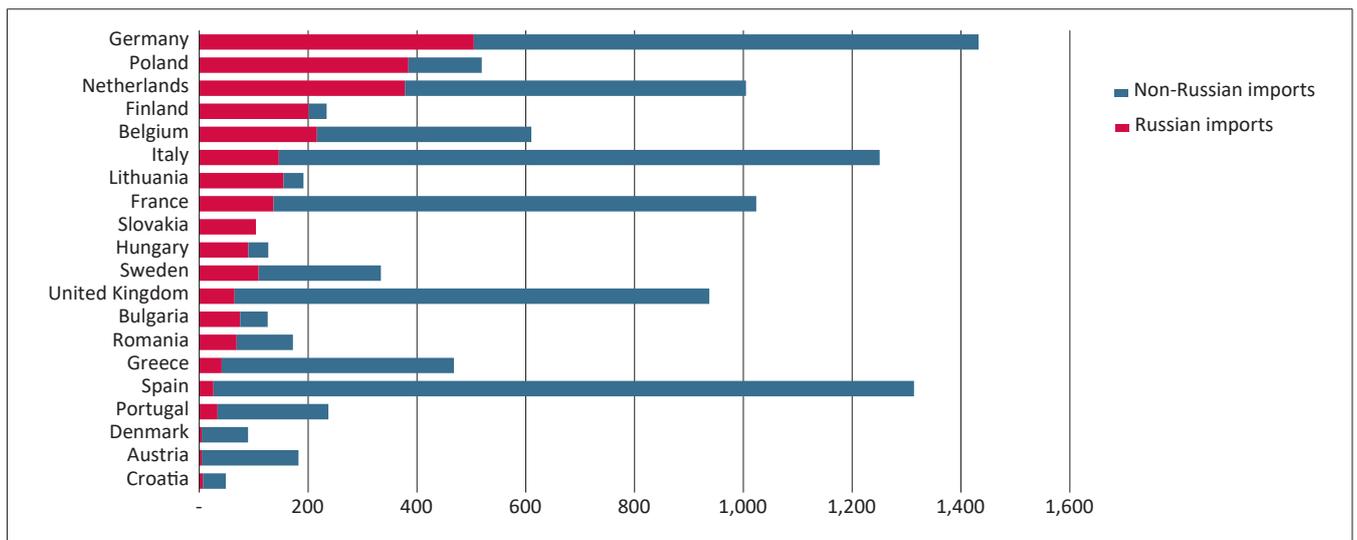
Source: CSD estimates based on statistics from the Russian Central Bank.

sian market would in the mid to longer term undermine the country’s ability to remain one of the biggest oil and gas producers in the world.

The current inflow of Russian **foreign currency reserves** based on the sale of energy resources abroad ensure macroeconomic stability. Following the freezing of at least 2/3 of its reserves, the Russian central bank has mandated that 80% of foreign currency revenue of exporters is deposited with the state. This would mean that monthly imports and outstanding debt payments can be

covered by the remaining reserves and in particular by the new replenishments. Yet, in the case of a full EU ban on Russian oil and gas imports, the Russian central bank liquid assets at its disposal⁶ (estimated at a total of USD 227 billion) would be able to cover only between 8 and 11 months’ worth of imports and debt/deficit payments, depending on the price of oil and the ability to divert part of the EU sales to Asia.

⁶ Based on the national sovereign wealth fund and the total foreign cash and gold reserves.

Figure 4. European Importers of Russian Crude Oil ('000 b/d)


Source: CSD calculations based on DG Energy statistics (2018-2019 average imports).

Breaking the Russian Informal Networks of Influence in the European Energy Sector

Russia has developed powerful informal networks of enablers that serve to expand the Russian economic and political influence in Europe. European oil and gas companies have locked-in national economies in a long-term dependence on Russia, buttressed by their long-standing business relations with their Russian counterparts. Their strategic interests expressed in lucrative deals for oil and gas exploration and production in Russia or Russia-led infrastructure projects are now directly exposed to potential sanctions against the Russian energy sector.

Over the past three decades, **European energy champions have dragged their feet on supply diversification.** No wonder that Europe relies on Russian crude oil for over a quarter of its imports. This amounts to about 2.7 million b/d on average over 2018-2019, with Germany, Poland and the Netherlands alone accounting for over 40% of these volumes (see Figure 4).

At the average price of Urals for February 2022 of USD 95 per barrel, this amounts to USD 257 million per day. This is only the revenue associated with physical crude flows that end up in Europe. Additionally, the trading houses buying and selling Russian crude from their Swiss offices are the primary handlers of most of Russia's total exports, amounting to about 6 million b/d.

A close examination of the refining industry in Europe reveals the main buyers of Russian crude. PKN Orlen, which owns the biggest refinery in Poland, but also the Mazeikiiai refinery in Lithuania and the Litvinov refinery in the Czech

Republic, comes on top with typical Russian crude purchases likely to be close to 450,000 b/d. Finland's Neste is also among the top buyers, as the operator of the only two refineries in the country⁷. Critically, major refineries in Germany are partly owned by Russia's Rosneft⁸, while Lukoil also has a notable presence across Europe (with refineries in Bulgaria, Romania, the Netherlands and Italy).⁹

Since the start of the war, many European companies have been abandoning the purchases of Russian crude, primarily due to the uncertainty about potential sanctions and the difficulties with financing and insurance, as well as potential reputational damage.¹⁰ While this has translated into unprecedented pressure on the price of Russia's key crude grade, in reality the disruption of Russian oil flows has not been significant so far. Compa-

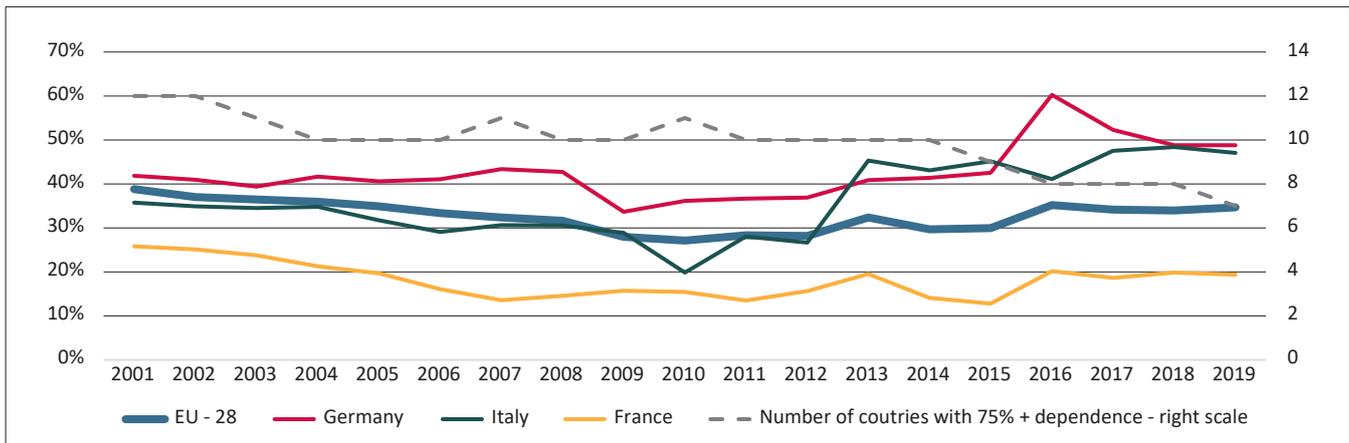
⁷ Finland's Neste was one of the first major buyers of Russian crude to announce that it has "mostly replaced Russian crude oil with other crudes". Nevertheless, this statement failed to disclose that in reality only spot purchases (typically representing only a small fraction of a refinery's crude purchases) have been replaced, while Neste still has long-term contracts lasting until the end of the year. Neste, "Neste has mostly replaced Russian crude oil with other crudes," official company press release, March 1, 2022. This information was disclosed more than two weeks later: Reuters, "Neste still has contracts for Russian oil lasting until year-end – executive," March 17, 2022.

⁸ In early 2020, Rosneft increased its share in the Bayeroil refinery from 25% to 28.57%. In November 2021 Rosneft increased its share in the PCK (Schwedt) refinery from 54.17% to 91.67%. With its 24% stake in the Miro refinery, these deals made Rosneft the second biggest refiner in Germany by refining capacity, coming second to Shell.

⁹ Lukoil has full ownership of the Burgas refinery in Bulgaria, the Priolo refinery in Italy, and the Ploiesti refinery in Romania, as well as a 45% share in the Vlissingen refinery in the Netherlands.

¹⁰ A particular case in point is Shell, whose purchase of a cargo of Russian crude from Trafigura in early March received wide media coverage, leading to an official apology from the CEO Ben van Beurden a few days later and a commitment to stop all spot purchases.

Figure 5. Share of Russian Natural Gas in Total Gas Imports in Selected European Countries



Source: CSD calculations based on Eurostat data.

nies have limited only spot purchases, while the majority of trade is linked to existing long-term contracts and remains intact.¹¹

Meanwhile, the continued talk about oil import sanctions has so far only served to support the rise in global crude and oil product prices. This benefits the buyers of Russian crude, as they make considerable margins from refining the relatively cheaper Russian crude and selling to an overheated products market. It also benefits the Kremlin, as it continues to sell its crude and products at high prices and refills its foreign currency reserves. The profitable business of buying Russian crude puts **European refiners and oil traders in a dependency of choice** vis-à-vis Russia. Counting on their voluntary rejection of doing business in Russia would be wishful thinking.

Europe’s reliance on Russian natural gas imports is even more extensive than that for crude oil. Russian gas accounts for around 40% of total natural gas imports in Europe. Crucially, with declining domestic natural gas production, the **share of Russian gas in total imports has been increasing in recent years**, up by 8 percentage points between 2010 and 2019. The biggest importers of Russian natural gas by volume, Italy and Germany, have been the key drivers behind the growing dependence. For Germany, the share of Russian gas has increased to 50% of total gas imports by 2019, compared to 34% in 2009. The number of countries, that rely on Russian gas for over 75% of their imports and hence are the most vulnerable, has meanwhile declined only marginally despite much trumpeted diversification and security of supply projects.

¹¹ The average price of Urals in February was 20% higher than the average over October 2021-January 2022. Despite the enormous pressure from limited spot buying, Urals has remained close to February levels on average over the first half of March. The 20% increase comes down to about \$15 per barrel, which can mostly be ascribed to a geopolitical risk premium.

Seven countries¹² fell into this category in 2019, representing 24% of European gas imports (40bcm).¹³

In addition, Russian energy companies locked their European counterparts into **long-term supply, exploration, production, and infrastructure deals**, consolidating Russia’s decade-long presence in the European energy markets. The neglect of energy security and the many foregone opportunities to achieve strategic diversification of gas supplies, the premature closing of German nuclear power plants, the failure of the Nabucco gas pipeline and the blocking of shale gas exploration in Europe are some examples of such short sightedness.

Due to the relatively smaller role of natural gas in Russia’s import revenues compared to crude oil, **the Kremlin could potentially ban the exports of natural gas to Europe as a form of retaliation** to a potential EU oil embargo. Europe does not have sufficient alternative supply sources to fully offset a complete halt of Russian imports. Even at the record levels of early 2022, LNG imports would be able to cover only half of the shortfall. A significant increase in LNG imports is out of reach, as infrastructure bottlenecks prevent a maximum utilisation of LNG regasification facilities in Spain, where most of the spare capacity remains. As a compound risk factor, gas storage has been strategically emptied to unusually low levels ahead of the Russian invasion. Gazprom’s ownership of about a third of the storage capacity in Germany, the Netherlands, and Austria has played a key role in enabling **Russia’s strategy to make Europe vulnerable to potential energy supply disruptions** ahead of the invasion in Ukraine.

Similar to the oil sector, the companies importing Russian gas, mainly though long-term contracts, are cur-

¹² Bulgaria (79%), Czech Republic (100%), Estonia (99%), Latvia (100%), Hungary (95%), Slovakia (100%), Finland (97%)

¹³ CSD calculations based on Eurostat data.

rently benefitting from selling relatively cheaper Russian gas at much higher market prices. For these companies, cutting off gas imports from Russia would lead to lengthy and costly legal battles with Gazprom and a loss of their bilateral business ties. Without sanctions from the EU, these companies are unlikely to take meaningful action to undermine their own financial interest of maintaining close ties with Russia. Not surprisingly, these companies are the main voices against EU sanctions on Russian gas.

What's Next?

The Russian aggression in Europe and the critical dependence on Russian oil and gas imports have clearly demonstrated the need for a new European energy and climate security strategy. The International Energy Agency and the European Commission have both put forward proposals for improving Europe's energy security. The IEA's [10-point plan](#) and the EC's [REPowerEU](#) emphasize the need to maximise non-Russian gas imports, as well as the increase in renewable energy, electrification, energy efficiency, and innovation.¹⁴ However, both plans fail to formulate a more comprehensive energy and climate security strategy that clearly defines (i) emergency/short term measures that aim to alleviate Europe's critical vulnerabilities before the next heating season; (ii) medium-term measures that further reduce Europe's fossil fuel dependence and improve Europe's resilience to foreign political and economic influence; and (iii) long-term measures that strengthen Europe's energy and climate security through full decarbonisation of the economy and an alignment of Transatlantic energy security policy. Clearly synchronising energy security priorities with decarbonisation is a crucial first step to ensure the long-term consistency of measures and investments.

Emergency Measures

First and foremost, the EU should cut the flow of funds to the Kremlin by introducing an oil embargo within a month. A combination of alternative crude oil supplies and the release of the mandatory 90-day strategic inventories would avoid fuel shortages. On the EU and national level, there is an urgent need for a targeted information campaign to prevent panic buying by end-users and to clearly explain that existing inventories are enough to cover 3 months of normal consumption in the event of

a complete cut of all oil supplies. In addition, to block Russian influence networks in Europe, EU member-states should cancel all large-scale Russia-led energy projects such as nuclear power plants and natural gas infrastructure as soon as possible – following the example of Nord Stream 2.

Europe needs to also introduce emergency measures to withstand a Russian gas supply cut. EU and national governments should ensure domestic consumption needs will be met and vulnerable consumers protected, including by:

- Ensuring all EU Member States implement gas solidarity agreements with a focus on optimizing West-to-East gas flows;
- Implement a common EU gas purchasing mechanism to secure gas stocks and achieve economies of scale in mobilising alternative gas supplies;
- All EU Member States should define a priority list of vulnerable consumers;
- Roll out demand response tenders to urgently reduce natural gas demand and prevent large business losses;
- To protect vulnerable consumers, the EU needs to develop an emergency spending package based on the national Emission Trading Scheme (ETS) revenues and the shifting of resources in national recovery and resilience plans;
- Temporary cuts of excise and VAT duties on natural gas as additional support measures for vulnerable consumers;
- Temporarily takeover Gazprom-owned natural gas storage facilities across Europe to prevent Russian market manipulation.

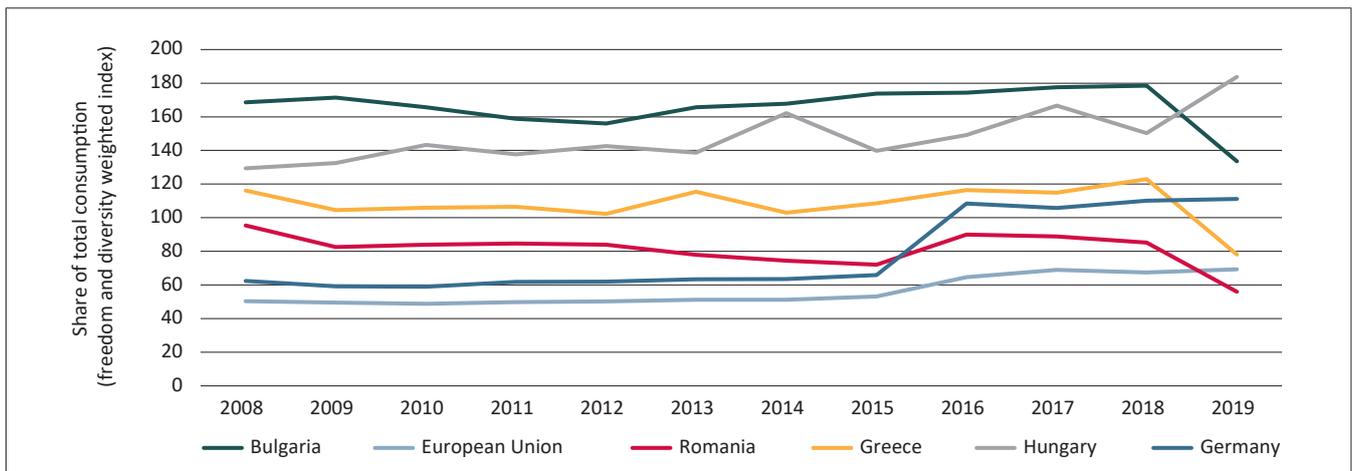
Medium-Term Measures

In the medium term, the EU should implement an ambitious **gas supply diversification** strategy hand in hand with a **phase-out of long-term contracts** with Russia. EU member-states should temporarily raise domestic gas production in key fields such as Groningen, accelerate strategic interconnectors, new LNG regasification terminals in Germany, Italy and Greece, and gas storage facility projects, as well as remove take-or-pay clauses on existing long-term contracts with Gazprom.

In addition to cutting the dependence on Russia, the EU should **reduce the overall role that natural gas plays in Europe's energy mix** by replacing it with locally-sourced renewable energy. This would not only limit the exposure to Russian imports and geopolitical risks more generally, but also to the inherent volatility of fossil fuel prices. Natural gas has proven to be a key driver behind skyrocketing electricity prices. Forward markets are pricing in continued supply scarcity through to at least 2023. Me-

¹⁴ The two plans diverge in their estimate of the potential impact of similar measures, however. In particular, the REPowerEU expectation for 50 bcm of LNG replacement for Russian gas by the end of 2022 diverges sharply from the IEA's more realistic estimate of 20 bcm, which factors in the global LNG supply-demand balance. The assessment of pipeline gas diversification potential also seems overestimated by the EC, with 10bcm in REPowerEU, while the IEA sees only 2.5 bcm.

Figure 6. Index of the Security of Natural Gas Imports for Selected Countries and the EU



Source: CSD calculations based on Eurostat data on imports by origin country and consumption.

dium-term measures to phase out natural gas from the European energy mix include:

- Replacing natural gas in heating with heat pump roll-out strategies and electrification;
- Reducing overall gas demand with an accelerated energy efficiency investment strategy, focusing specifically on energy poor households;
- Accelerating offshore wind and power storage projects to replace natural gas power plant use for covering peak power demand;
- Avoiding a natural gas lock-in by abolishing any new EU-financed natural gas transmission and gas-fired power plant projects;
- Ensuring that only green hydrogen projects will be supported.

There is an urgent need for screening and halting all Russian strategic investments in Europe linked to Russian state-owned companies and oligarchic networks close to the Kremlin.

The EU needs to accelerate the roll-out of the newly designed Anti-Money Laundering Authority (AMLA), which should prioritize the stopping of Russian illicit financial flows, closing glaring governance gaps in Europe that have allowed Russian companies to evade sanctions before and tracking and seizing the assets of Russian oligarchs. AMLA should coordinate its actions closely with U.S. FinCEN and the financial intelligence institutions in the different EU member-states.

Long-Term Measures

In the long run, a full fossil fuel phase-out is the most sustainable way to improve energy and climate security.

Decarbonizing energy markets will also deliver a blow to the Kremlin’s ambition to increase its economic and political influence in Europe.

An accelerated decarbonisation strategy requires:

- Deep electrification based on cutting-edge renewable energy technologies such as offshore wind, green hydrogen and synthetic fuels in industry and low-carbon transport infrastructure. A strong focus on market-oriented R&D and innovation must become the primary driver of the transition;
- Designing robust EU and national energy transition and energy poverty reduction strategies;
- Deep renovation programs to reduce energy consumption faster than the current 2030 targets;
- Improved integration and liberalization of natural gas and power markets in Europe as a crucial step to removing bottlenecks that cause regional price divergence and stir up energy nationalism;
- Upgrading power transmission lines and smart grids to increase supply reliability and facilitate the integration of a larger share of renewable energy in the system.

Finally, improving energy governance is critical to achieving common European goals. Bridging the policy ambition gap between the development and the implementation of a new energy and climate strategy calls for the introduction of an evidence-based policy instruments to monitor member-states’ progress, options and possible actions. Based on an objective, comparative assessment, the EU would be able to further and deepen coordination of national policies across sectors and policy areas on the back of a long-term political, financial and social commitment.