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THE COMPLEXITY OF GAS PROCUREMENT IN THE EU CAUSED BY THE WAR IN UKRAINE

Abstract

The war in Ukraine affected the global world in many segments, including production, trade, energy supply, and inflation worldwide. And while the economy of Germany and other EU member states are facing numerous challenges in terms of sanctions, among all EU members this crisis will perhaps create the biggest alliance and consensus in terms of preventing the gas import dependence from Russia. With the strengthening of economic relations among the EU members, it is necessary to expect that in the political sense, an even more significant gap will be created between the East and the West.

This paper analyzes the available data on the impact of the war in Ukraine on the reliability of gas supply to the EU. Based on comparable secondary data and historical facts, this paper focuses on the previous and current issues of gas procurement and distribution within the EU, but also on the challenges of the future supply of EU member states with this energy.

The war in Ukraine has produced a domino effect on global and regional gas trade and the economy. Many causal reactions are already having wide-ranging consequences for the European economy. The gas prices increase, transport costs increase, prices of food and many other goods had been increased, as well as EU economic sanctions against Russia that have already affected the gas trade structure and energy balances of EU members, today have a huge impact on global and regional infrastructure investments. Current anticipations are that the Ukraine war will cause Europe's greatest gas crisis and long-term decisions non-seen since the Cold War.

Key words: *gas procurement, gas import, gas export, gas import dependence*

JEL classification: *D30, F50, Q49*

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СЛОЖЕНОСТ НАБАВКЕ ГАСА У ЕУ ИЗАЗВАНА РАТОМ У УКРАЈИНИ

Абстракт

Рат у Украјини утицао је на глобални свет у многим сегментима, укључујући производњу, снабдевање енергентима и храном, тргодину и општи раст цена широм света. До се економије Немачке и осталих чланица ЕУ суочавају са бројним изазовима на пољу увођења санкција Русији, ова криза ће можда међу свим чланицама ЕУ створити највећи савез и консензус по питању смањења ризика увозне зависности од увоза гаса од Русије. Са јачањем економских односа између чланица ЕУ, логично је зачекивати да ће у политичком смислу бити створен још значајнији јаз између Истока и Запада.

У овом раду анализирају се доступни подаци о утицају рата у Украјини на поузданост снабдевања гасом за маља ЕУ. Заснован на упоредивим секундарним подацима и историјским чињеницама, овај рад се фокусира на претходна и тренутна питања набавке и дистрибуције гаса унутар ЕУ, али и на изазове будућег снабдевања ЕУ чланица овим енергентом.

Рат у Украјини је произвео домино ефекат на глобалну и регионалну трговину гасом и економију уопште. Многе узрочне реакције већ имају широке последице по европску економију. Поскупљење цене гаса, повећање трошкова транспорта, поскупљење хране и других добара, као и економске санкције ЕУ према Русији, који су већ утицали на структуру трговине гасом и енергетске билансе чланица ЕУ, данас имају огроман утицај на светске и регионалне инфраструктурне инвестиције. Тренутна предвиђања су да ће рат у Украјини изазвати највећу европску гасну кризу и дугорочне одлуке које се несу виделе још од доба Хладног рата.

Кључне речи: *Набавка гаса, увоз гаса, извоз гаса, зависност од увоза гаса*

Introduction

Ukraine has a border with 4 European Union (abbreviated EU) member states Poland, Romania, Hungary, and Slovakia as well as with Belarus and the Republic of Moldova. Ukraine, with its population of about 44 million people, is of great importance for the European Union as a transit country for Russian gas but also as an emerging market. This means that “insufficiently” integrated Ukraine is a political and economic slack for Europe.

The focus of this paper is related to the impact of the war in Ukraine on the gas procurement and distribution in Europe and energy supply challenges considering the war in Ukraine started on 24th of February 2022 it is also important to mention that the Ukrainian-Russian conflict started in 2014. In order to understand the wider context of the international energy trade relations affected by this conflict, it is necessary to include certain relations from 2014 to 2022. It is also important to mention that the objectivity of this paper is in the question of the mark since there is not enough available data from parties involved in the conflict and synchronized and live tracking of data related to gas export and import. Until

the completion of this paper, there were still no officially available data on the quantities of exported or imported gas that were presented in the official annual reports, but certain insights were detected and used in this paper.

In November 2013 the Ukrainian government decided not to sign a planned Association Agreement with the European Union. This action of the Ukrainian political leadership led to civil demonstrations in the capital Kyiv, lately called “Euromaidan” demonstrations. The demonstrations turned violent, brought early elections and a new government was elected by the Ukrainian parliament. In the same year appeared conflicts in the Crimea peninsula in Ukraine and the Donetsk and Luhansk regions of eastern Ukraine usually called Donbas. A majority of the Russian population take over authority and declare the independence of Crimea. The Crimean “autonomous” assembly held a referendum on union with Russia and since the majority voted for it, subsequently Russia completed the annexation of the peninsula. However, the Donbas region in the following years continues to be the battlefield.

Thereafter, in June 2014 Ukrainian government signed the Association Agreement with the EU. In January 2016 Deep and Comprehensive Free Trade Area agreements (DCFTA) between the EU and the six Eastern Partnership countries (abbreviated EPC - Ukraine, Armenia, Azerbaijan, Georgia, the Republic of Moldova, and Belarus) get into force. In September 2017 the Association Agreement entered into force and since then EU become the main trade partner for Ukraine and the volume of trade exchange increased from year to year. At that time the EU takes Ukraine as a leading partner in the Eastern Partnership countries region and promotes this example to other Eastern partners in their European integration. On the other side, Ukraine took this role to strengthen its political standing as a regional leader and set goals to develop democracy and maintain political stability to achieve integration into the EU.

Literature review

Some authors provided interesting and different theories, hypotheses, and ideas about how armed conflicts and wars affect trade between parties involved or in a regional or global context. The war in Ukraine definitely has a huge global impact since both Ukraine and Russia are huge global actors in the exports of crops, steel, and energy.

Both liberal and realist authors who elaborated different theories of interdependence and conflict mainly agree that trade and other economic exchange will be significantly affected in case of armed conflict between two or more parties involved. According to Barbieri and Levy (1999), “...societies engaged in any form of conflict or war usually cease or reduce any kind of trade”. From the side of liberal theories, they stated that they “generally assume that political leaders are deterred from engaging in conflict when they anticipate that conflict will disrupt or eliminate trade or adversely affect the terms of trade, so the hypothesis that trade deters war rests on the assumption that war impedes trade.” From the other side, realist theories according to the same authors “suggest that the concern over relative gains will lead at least one of the belligerents to terminate trade in order to prevent its adversary from using the gains from trade to increase its relative military power”.

Based on postulates provided by Barbieri and Levy, 10 years later, authors Glick and Taylor (2010) stated something that is absolutely correlated to the facts present in the particular case of Ukraine, “Conventional wisdom in economic history suggests that conflict

between countries can be enormously disruptive of economic activity, especially international trade.” Among other statements, authors asserted that wars have large and persistent impacts on trade, inflation, national incomes, and global economic welfare. The same authors also completed an exercise that provided indications that “costs associated with lost trade might be at least as large as the conventionally measured direct costs of war, such as lost human capital, work estimates the economic costs of war arising from the destruction of trade”. Completed econometric exercise and analysis shown revealed that these costs are highly persistent and quantitatively large.

On the other side authors Anderson and Carter (2001) explained that the hypothesis “trade promotes peace” rests on three premises: “(1) Societies achieve salient gains from their trading relationships; (2) serious conflict among societies disrupts trade; premises 1 and 2 enter the calculus of political decision-makers.” Taking into account the hypothesis “trade promotes peace” and considering the fact that Ukraine changed its trade direction from East to West could be also some of the causes for the current state. Sounds ironic, but according to this, history really can be repeatable, more than twice.

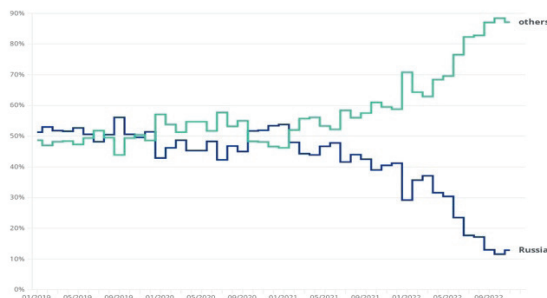
Hence, Djukic (2014) investigated the issue concerning the Russian impact on EU via gas infrastructure. He explained very clearly why the EU economy depends on Russian gas, and why Russia uses the gas pipelines and gas to impact the EU policy, trade, economy, and security. Namely, the EU uses the privileged gas prices in gas procurement from Russia, reliable placement through gas pipelines, and the gas placement is most affordable with a low level of risk concerning gas placement reliability. On the other hand, Djukic justifies the Russian usage of gas and gas infrastructure to impact the EU policy in different areas. According to Djukic, NATO’s extension to the East had an impact on Russian security, and besides this NATO stakeholders also uses the European countries to dominate the region on the basis of mercantilist concepts. These long-term processes had an impact on Russian attitudes against Ukraine’s position in EU and NATO associations.

Besides all this, the general infrastructure that supports the gas distribution from Russia to the EU is located in Ukraine. To respond to this strategic disadvantage, Russia decided to extend the gas pipeline infrastructures in the North and East of Europe. Tensions between Russia and the West had increased, and EU plans concerned with long-term gas procurement were affected. This had an impact on trade with gas i.e. gas structure misbalance between Russia and EU members.

Gas trade misbalance

The cause of this trade misbalance and increases in prices is the energy dependence of the EU on Russia. Many members of the EU are very dependent on Russian gas. In 2021, the EU imported 83% of its natural gas. In January 2021, 53.8% of the gas was from Russia and 46.2% from other countries. From February 2021 the percentage of imports of gas is in constant decline and in November 2022 was only 12.9% according to European Commission, (data provided in Figure 1 below).

Figure 1. The European Union's diversification away from Russian gas



Source: European Commission 2022

The most of gas in the EU is used for electricity and heating 31.4%, households 24%, industry 22.6%, and others, (according to www.consilium.europa.eu). In the last years was noticeable many disagreements among EU member states concerning issues in different spheres. Russian attack on Ukraine achieved the near-impossible, uniting European countries in condemning such action. However, after 6 blocks of sanctions, further sanctions related to the imports of oil and gas from Russia again provides many disagreements among some EU member states. Many effects of the war in Ukraine, as well as economists' estimations, predict a rapidly worsening outlook for the world economy. Already raised prices of food, energy, fuel, fertilizer, and other commodities are followed by heightened financial volatility, sustainable development divestment, complex global supply chain reconfigurations, and mounting trade costs.

As it is described in the Introduction part Ukraine – Russia and EU – Ukraine relations significantly evolved since 2014. Geopolitical movements, the changed direction in trade from East to West, and the internal condition in Ukraine as a divided society are some of the reasons which triggered the global sphere of influence.

In this regard, the war in Ukraine produced a domino effect on within EU and global trade, as well as on the entire global economy. Many cause-and-effect reactions already have wide-ranging repercussions for the European and global economies. The price of gas and other energy items, food, and many other commodities, as well as the EU's economic sanctions that hit trade and investment already, have a huge impact on the global market in many sectors.

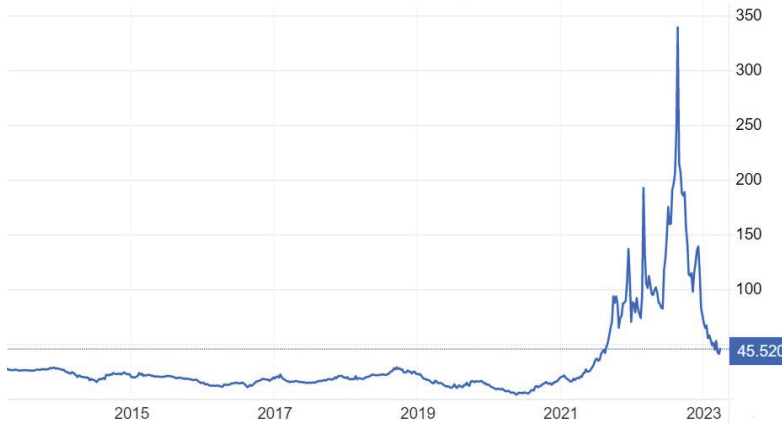
The weight of the issue in terms of gas procurement - the causes of current circumstances

During 2020 and 2021 the Covid-19 pandemic caused a long list of problems for all countries, especially to EU. Due to the Covid-19 pandemic, many measures have been applied, such as vaccinations, limited mobility, and lock down during specific periods. As the EU is defined as an area where people, capital, and merchandise can be moved without limitations, boundaries, and additional costs, this pandemic had a huge effect on EU functionality and budget.

Despite the Covid-19 consequences on the economy of the EU, all members of the EU have faced war in Ukraine issues. The worst immediate impact of the Ukrainian war on the European economy represents the energy supply triggered by the increase in gas and oil prices, due to Europe's dependence on Russian sources. Besides the currently immeasurable impact on the manufacturing sector, most will suffer poorer households, who spend a larger share of their income on energy bills. The same situation is related to the global sphere in countries that import a high share of different commodities from parties involved in the conflict but is also triggered by the increasing cost of transportation which directly affects many countries in the world. Due to numerous reactions of many countries, the impact of the crisis will have an influence on investors' sentiments why many projects which supposed to address unemployment and other needs of developing nations will be on hold.

According to the available data (McElhatton, 2022), by analyzing gas prices on the Dutch TTF stock exchange, in Figure 2 we can see that already in June 2021, the price of gas began to rise above the decade maximum, which did not exceed more than 30 euros/MWh. The maximum price in 2021 was 100.48 euros/MWh. After the Russian attack on Ukraine, in March 2022 the price of gas was 125.78 euros/MWh, to reach the historical maximum in November 2022 with 345.00 euros/MWh. After this maximum, it is in a drastic decline, and after a slight increase in November and December 2022 to 147 euros/MWh, it continued to fall further so the price of gas is currently 45.52 euros/MWh. The table below shows the gas price trend over the last 4 years with a visualization of the impact of the Covid-19 crisis and the most significant events related to the war in Ukraine (GIS, 2022).

Figure 2. Natural gas EU Dutch TTF (EUR/MWh), period 2013-2023



Source: www.gisreportsonline.com, retrieved April 2023

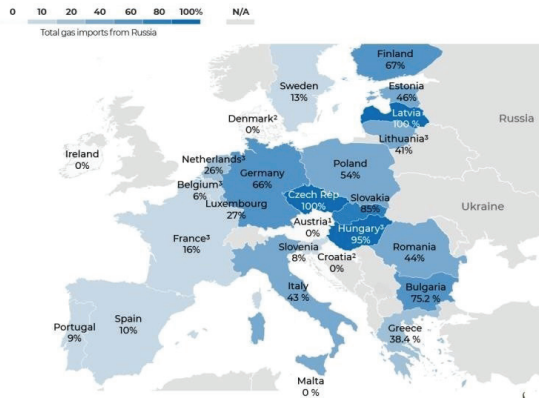
Concerning the gas price level on the global gas market, the structure of procurement of gas in the EU in the period January- November 2022 sums up to be 25.7% (Liquefied Natural Gas, hereinafter abbr. LNG, from USA, Nigeria, and Qatar), Norway 24.9%, Russia 24.6%, Algeria 11.6%, and other sources. The structure of procurement of gas in the EU is subject to changes, and the direction of structure changes does not go in the favor of Russia, (GIS, 2023).

Generally, from the corner of fuel dependency on Russia, several European countries

are highly dependent on the imports of fuel from Russia, in the first place oil and gas. In 2021 EU imported 83% of its natural gas consumption and more than 40% of its imported gas came from Russia as well as 27% of Russia's oil (European Commission, 2022). Developing situation in Ukraine and a complete cut from Russian gas quickly and rapidly led to higher energy prices. This scenario ripple through the economy from higher heating and fuel bills to costlier transport and power for businesses. According to IEA from April 2022, crude oil prices have increased by around 60% while gas prices are doubled. The most dependent EU countries are Slovakia, Lithuania, and Finland with 63% of imports of fuels, Bulgaria with 59%, Poland with 50%, Hungary with 41%, Estonia with 38%, Romania with 37%, the Czech Republic with 36%, Latvia 26%, Greece 24%, Italy 22%, France 12%, etc., (IEA, 2022). According to Carnegie Europe, Germany pays Russia 217 million euros every day out of the EU's total of 800 million euros for the energy supply, mostly on gas and oil.

Besides the EU's dependence on oil, the most sensitive problem is the EU's dependence on gas. According to updated OPEC annual reports and using the data from Eurostat in 2021, the picture below illustrates EU member states and the percentage of their dependency on Russia's natural gas, (Eurostat, 2022).

Figure 3. Proportions of gas imports by European Union countries from Russia in January 2022



Source: Eurostat 2022

The total cost of the EU's imports of gas in 2019 was 60 billion euros, while in 2021 was 170 billion euros. An estimation predicts that a 50% cost increase for new shipments and assuming a halving of the Russian gas supply could provide a cost of 370 billion euros for the European Union. From Figure 3 above we can notice that highly dependent countries on Russian natural gas are the Czech Republic and Latvia with 100%, Hungary with 95%, Slovakia with 85%, Bulgaria with 75.2%, Finland with 67% and the European largest economy Germany with 66%, (Eurostat, 2022).

Regarding absolute values, the table below presents data on imports of gas by European countries from 2013 to 2021 in millions of cubic meters. In the observed period, the largest consumer of Russian gas was Germany (row 1), then Italy (row 2), and France (row 3). A significant drop in volume in the last 2 years is caused by the Covid-19 pandemic why many economies were forced to reduce production, (Eurostat, 2022). This image increases the image of EU gas dependence on Russia in terms of quantity.

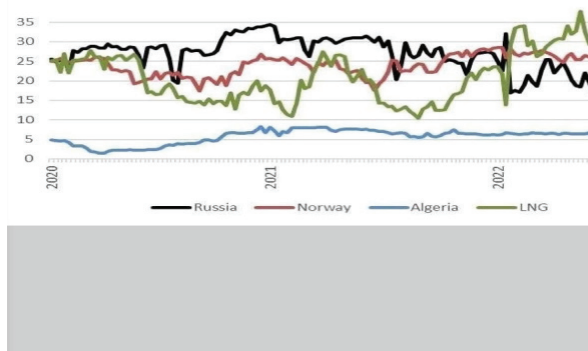
Table 1. Hugest amounts of gas imported by EU members from Russia

Countries	2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany	97,777	89,896	102,517	97,379	118,694	88,347	94,786	80,439	84,808
Italy	61,966	55,757	61,266	65,284	69,650	67,872	71,065	66,392	72,995
France	48,205	42,731	42,356	44,399	46,485	47,070	53,220	45,301	45,349
Spain	35,489	36,384	32,391	32,405	34,626	34,817	37,209	32,485	36,968
Poland	12,485	11,819	12,121	14,679	15,727	15,766	17,451	17,416	18,502
Hungary	8,176	8,942	6,790	7,552	9,845	7,740	11,669	7,936	7,479
Austria	6,421	7,709	6,072	7,498	8,464	7,831	11,377	6,462	4,754
Slovakia	5,269	4,757	4,407	4,378	5,248	4,396	6,707	4,301	5,131
Greece	3,864	2,931	3,162	4,067	4,975	4,902	5,221	5,902	6,426
Finland	3,488	3,063	2,713	2,496	2,322	2,641	2,594	2,568	2,571
Sweden	1,085	891	812	917	1,067	1,139	1,088	1,446	1,224

Source: Eurostat, 2022

Hence, Figure 4 visualized the share of natural gas imports from Russia in 2020 (Mark, 2022). The picture is also illustrated gas pipelines from Russia to Europe and Turkey.

Figure 4. The European share of natural gas imports coming from Russia, January 2022



Source: Mark, 2022, (adapted by authors)

European countries, especially EU members, received relatively cheaper Russian gas through several gas pipelines from Russia. The gas pipeline lines from Russia to the member countries of the EU went from north to south through the Baltic Sea, via pipelines *North Stream 1* and *North Stream 2* with a total capacity of 110 billion cubic meters per annum (hereinafter abbr. *bcmpa*). Also, through Belarus to Poland and Germany (*Yamal 33 bcmpa*), then through Ukraine (*Brotherhood* and *Soyouz 40 bcmpa*), via the Caspian Sea to Romania, Bulgaria, and Greece, and through Turkey (*Turkish Stream 16 bcmpa*). Business relations in the supply chain were at a high level, as evidenced by the joint partnerships of Russia and Germany in the construction of the Nord Stream 1 and 2 gas pipelines, (Pisani-Ferry, 2022).

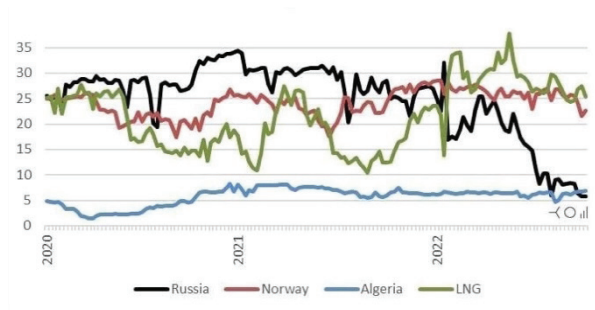
The North Stream 1 project was started in 1997, and due to numerous changes in ownership and administrative barriers, gas delivery began in September 2011. The North

Stream 2 project started in 2011 and was completed in 2021, but it never became operational due to political reasons and Germany's decision not to issue the necessary operating permit due to Russian influence on the events in Ukraine. Project North Stream was supported by Russia and EU countries, in the first place Germany and Holland. Despite all efforts by both parties, the North Stream 2 has been accomplished, and activated, but not for long. In September 2022, both gas pipelines were sabotaged by an unknown party, (Planete Energies, 2023). In addition to the environmental damage caused by the release of a huge amount of methane into the atmosphere, the entire supply of gas to the North Stream 2 Pipeline A was interrupted. Pipeline B of the North Stream was not damaged in this sabotage, but although Russia offered to continuously distribute through this pipeline, Germany refused. There are 3 versions of potential perpetrators of these sabotages. Some authors blame the US, some Ukrainian tycoons, and some Russia.

In addition to the challenges with gas procurement, the EU faced a significant increase in gas prices, due to unavailable gas pipelines and sanctions decreased options to import from Russia, the lack of terminals for processing liquefied natural gas into a gaseous state in order to distribute it to final users, the increased cost of transport and other commodities, and due these reasons with general inflation. However, Europe was forced to look for alternatives and find a way to switch from Russian natural gas to liquefied natural gas.

Due to reduced gas purchases i.e. procurements from Russia, the deficit had to be compensated in some way. Considering the limited capacities of gas pipelines from Africa and the Middle East, the only possibility turned out as a quick feasible solution is the procurement of liquefied natural gas. To illustrate this deficit, in the table below, you can see how in 2022 the import of gas from Russia drastically decreased, while on the other hand, the supply of LNG increased linearly, which makes interesting insight.

Figure 5. European Union natural gas import sources



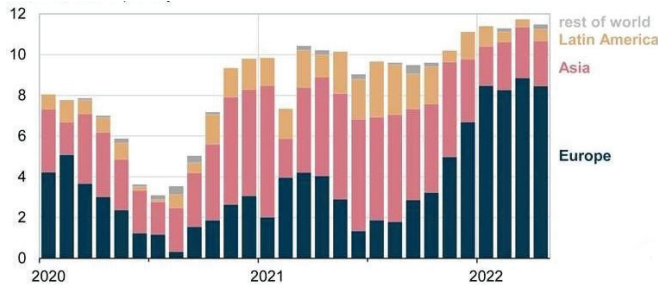
Source: McElhatton, 2022

Procurement of large amounts of LNG to prepare Europe for winter 2022 has encountered many challenges. According to KPLER (provider of intelligence solutions for commodity markets), the European Union imported 94.73 million tons (hereinafter abbr. *mt*) of LNG in 2022, which is an increase of 65.41% to in 2021 (57.27 *mt*). The largest exporter of LNG to the EU in 2022 is the US with 41% or 38.86 *mt*. This percentage is not represented in Figure 5, while Russian, Norwegian, and Algerian percentages did. In second place with 15.96% is Russia with 15.12 *mt*, imported almost entirely from independent producer Novatek, while in third place is Norway with 13.45 *mt* or a share of almost 14.20%. The third

place also takes Qatar with the same percentage as Norway. Liquid natural gas in the amount of 19.72 mt came from the African continent, which represents a share of almost 20.82%, while 80% of this LNG was distributed by Nigeria, Algeria, and Egypt, (Source Kpler, 2023).

As we may notice, the import of LNG by the EU from the US is not represented in Figure 5. To make the image clear we use an additional figure (Figure 6) of US export by destinations in different regions. The US gas export proportion in the EU gas total imports has increased in the last few years. To illustrate this, in the table below, according to data from the US Energy Information Administration, we can see how LNG US exports to Europe have increased significantly since December 2021. According to available data, the US exported 23.59 mt more to the EU compared to 2021, and this represents an increase of 154.49%, (EIA, 2023). At the same time, since June 2021, LNG deliveries from the United States have exceeded gas deliveries from the Russian company Gazprom. Gas balances are changing significantly, there is a transition to LNG, the appropriate infrastructure is being built for this, and logistics are being optimized.

Figure 6. US LNG exports by destination region for 2020-2022
(one bar represents one month)



Source: US Energy Information Agency, 2023

These changes caused additional changes in the gas and oil trade relationship between the EU and Russia, and farther between Russia and USA. After several blocks of sanctions were introduced to Russia, the Russian ruble began to lose its value, so it reached its peak in March 2022 when it lost its value toward the euro by about 25%. One of the main reasons was that the EU has frozen Russian assets in the EU in the amount of 21.5 billion euros while assets of the Central Bank of Russia are blocked in the EU and G7 countries worth over 300 billion euros. Currently decreased volume in gas and oil export also could be a factor of ruble values decreases. But, after the EU introduced a fourth package of sanctions toward Russia in response to the invasion of Ukraine in March 2022 Russian Government requested payment of gas and oil in rubles. With the reduced value of the ruble, Russian exports would bring in less income, which would have incalculable consequences in the case of an endangered economy with numerous sanctions and inflation. A larger ruble fund imposed in this way would enable Russia to control inflation, but also to challenge the dominance of the USA, i.e. dollars on global money markets. In this regard, it is interesting that world reserves in dollars in 1999 sum up to 71%, while today they are less than 59%. In 2013, Russia had 150 billion dollars in US dollar reserves, while in 2021, it had just under 4 billion in US dollars. Initiatives to reduce dependence on the dollar in recent periods have been noticeable around the world, mostly in Latin America and Asia.

According to media reports, Poland, Bulgaria, and Finland refused to pay in rubles, why deliveries were suspended in April and May. Besides these EU members and other countries, against the sanctions they applied over Russia, found the protocolled solution to procure the gas from Russia. Importers from other EU countries opened accounts in Gazprombank in accordance with the instructions, but although the payments were made in euros, they were converted to accounts receivable in rubles under more favorable conditions. Future payments between Russia and China will be made in rubles, and in yuan as well, (Kemp, 2021).

On the other side, at the same time, EU representatives became concerned with gas dependency from the US. In October 2022 French Finance Minister Bruno Le Maire criticized US relations in exporting LNG to Europe. He said that conflict in Ukraine should not result in American economic domination and a weakening of Europe's economy saying "We cannot accept that our American partner sells its LNG at four times the price at which it sells it to its own companies." (Politcopro, 2023).

Conclusion

After Syria and the migrant crisis, after the COVID-19 pandemic, the war in Ukraine strongly shook the foundations of the EU and the whole world as well. When EU countries were confronted with this war scenario, they were already exhausted by the economic, social, and political costs of the pandemic. A fragile EU has to cope with an increase in defense spending while reducing energy dependency and dealing with high inflation and the huge number of refugees from Ukraine.

Because of its dependence on Russian oil and natural gas, Europe appears to be the region most exposed to the consequences of this conflict. Replacing all Russian natural gas supply to Europe is impossible in the short to medium run. The EU with its member states' governments has shown they are prepared to accept a certain economic pain for their citizens and treasuries with imposed sanctions on Russia and with promised support to Ukraine and refugees. Hence, in 2021, the EU initiated new gas infrastructure projects. During 2022 several gas interconnectors are constructed: between Greece and Bulgaria, the Polish Slovak gas interconnector, the Baltic pipe, delivering gas from Norway, as well as a new floating LNG terminal in Eemshaven in the Netherlands. These new infrastructure projects are supposed to contribute to the security of the gas supply and replace Russian pipeline gas, especially in Central and Eastern Europe.

Not only the EU, but the whole world needs to act with urgency to support countries affected by the crisis. This crisis will leave deep and long-lasting scars, and therefore further medium and long-term policy proposals will be needed subsequently. Certainly, some decisions have to be reconsidered and applied as soon as possible, because of one fact. Exchanging huge amounts of gas imported from Russia can't be done, even in the long term. Changing the concept of energy basis and concept of production competition can be taken into consideration, but any concept change takes with itself a certain level of risk. Taking into consideration of gas and oil-based production relation among all EU members, this option brings additional risk, a risk of consensus of all EU members regarding the energy concept changes. Not only European unity but also the stability of some European governments will depend on the balance between sacrifices and costs. The longer the war in Ukraine drags on, the more fragile European unity will be. Differences over the banning of Russian energy

imports have been the first fracture line but there will be others. Europe is facing a rethink of its ideology, its priorities, and its policy framework. Jean Monnet famously wrote that “Europe will be forged in crises and will be the sum of the solutions adopted for those crises”. We now understand that his prediction should be read literally.

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