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Europe and the Russian Energy Weapon

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BRENT OIL	85.09 $/BL	GASOLINE	8.00 ₺/LT
USD/TRY	9.75	DIESEL	8.27 ₺/LT
EUR/TRY	11.34	FUEL OIL	7.34

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Energy Policy Research Center

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Europe and the Russian Energy Weapon

Kristína Žaková

In the face of Europe's gas crisis, the question of whether Russia is utilizing its "energy weapon" has appeared again. Critics argue that Russia has been purposefully undersupplying the European gas market to generate a crisis that would push Germany to a quicker certification of the recently completed Nord Stream 2 pipeline. We could thus also ask, does Europe face a security risk stemming from Russian gas imports?

One might point out that the ongoing liberalization of the European gas market together with the supply diversification is significantly limiting politically motivated "deployment" of the Russian energy weapon. Given the progressive globalization of the natural gas market as well, one of the main interests of Russia is probably to maintain its position as a (relatively) reliable gas supplier. This year's launch of the TAP pipeline bringing Azeri gas to Europe and the inauguration of a new Croatian LNG terminal, the planned expansion of the Polish Świnoujście LNG terminal, or the forthcoming completion of the Poland-Slovakia interconnector – all of these projects might further contribute to the reducing of Russia's motivation and ability to effectively politicize its natural gas exports. We might, however, expect Gazprom to pursue various economically motivated efforts to ensure its competitiveness among pipeline gas and LNG suppliers, especially U.S. LNG suppliers.

One should also consider the fact that even though Gazprom is the biggest natural gas supplier of the EU, accounting for over 40 % of its gas imports, it is not only Europe that seems to be, to a certain extent, dependent on Russian pipeline gas. As Mitrova (2014) points out, exports of this commodity account for a considerable share of Russia's exports, having a significant growth potential in the event of expected oil exports decline. Given that despite Gazprom's efforts to diversify its supply markets, the company expects its western exports by the end of 2030 to still account for 70 % of its total exports, Russia seemingly is and for the near future will continue to be dependent on Europe as a natural gas consumer as well. The European gas market might simply be too important for Russia to deliberately jeopardize its strong but challenged market position by the politically motivated deployment of the "gas weapon."

Yet how to make sense of the current situation mentioned above? Is Russia pressuring Germany over the controversial

gas pipeline, possibly trying to subvert its certification process, by restricting its gas exports to Europe?

Concerns seem to be partly related to the end of summer's slow-down of Russian pipeline gas supplies to Europe, where at the westernmost part of the Yamal pipeline, gas flows dropped to 20 mcm/d in mid-August – down from 49 mcm/d in late-July and from its typical 81 mcm/d rate. However, EU's Energy Commissioner Simson and some of the top European clients such as Eni, Uniper, OMV, and RWE have confirmed that Russia is meeting its contracted commitments.

But Gazprom is not providing additional supply. It is unclear whether European consumers with LTCs have or have not asked for more gas. Regarding the spot market, Gazprom "has only booked about a third of transit capacity offered for October via the Yamal-Europe pipeline and no extra transit capacity via Ukraine." To what extent it is a result of production limitations and growing domestic needs or an attempt to exacerbate the European gas crisis and pressure Germany into the Nord Stream 2 certification remains unclear. We should note, though, that Gazprom isn't commercially obligated "to supply Europe's spot market."

When it comes to the gas-crisis-manufacturing accusation, one can hardly deny the role of other than Russian influences that might have contributed to the current situation as well, including little wind power generation, cold end of the past winter, high LNG demand in Asia, or economic rebound after the pandemic restrictions have eased. We shall see whether there has been a "deliberate market manipulation" and "violation of EU competition rules" once the European Commission responds to the letter of ca. 40 MEPs calling for the investigation of Gazprom's role in the European gas crisis. What this ambiguity shows us, however, is that even though we have assumed a relatively low probability of Russia deliberately jeopardizing its competitiveness within the European gas market by using its gas exports as a political weapon, there might still be a certain maneuvering space for the supplier to potentially cause a turmoil while not crossing critical thresholds. It is up to Europe to effectively progress with its decarbonization as well as liberalization and diversification activities and to ensure the adaptation as well as enforcement of its energy legislation in order to avoid being maneuvered.

World Outlook in Energy and Economy

A. Erinç Yeldan

Two important reports on the world economy were published one after the other. First, the International Energy Agency shared the World Energy Outlook 2021 Report and then the IMF World Economic Outlook Report. Both reports examine the transformations in the energy markets and economic balances in the global economy, especially in the process of overcoming the crisis caused by the covid pandemic.

Although the common point of both reports is the "new normal" that will be shaped after the pandemic, the emphasis on combating the climate crisis has come to the fore. The upcoming 2021 United Nations Climate Change Conference, also known as COP26, and the designs of energy transitions based on consecutive *net-zero emissions targets* have featured prominently in both reports.

The climate crisis has now passed the stage of climate change and has turned into a real threat to life in our world. The threat is not only the rise of sea level, the reproduction of new covid-like bacteria and microbes, and the increase in labor losses due to heat stress, but also signals that life in our world will come to an end.

The International Energy Agency (IEA) has also devoted the main message of its report to this issue and presents the truth in its entirety: *"Although clean energy technologies are advancing strongly around the world, the progress achieved is still too slow to be able to zero global emissions in the first half of our century."* The designs and technology are ready, the political will is present, the hopes are alive... However, the necessary transformations in energy are progressing very slowly.

The IEA Energy Outlook discusses the near future of our world in four main scenarios. The first of these is the *Net Zero Emissions Target Pathway by 2050*. This trail depicts the design of the *net-zero emissions target*, which the EU countries are leading by 2050. In addition, the "*Announced Pledges Scenario* (APS)" monitors the climate policies that the parties have committed to making so far. In addition,

there is the "*Stated Policies Scenario* (STEPS)," which covers the actual policies and new announcements that countries have implemented in detail, sector by sector. Finally, there is the "*Sustainable Development Scenario* (SDS)," where a net-zero emission path is set up in a time horizon extending until 2070, within the United Nations' *Sustainability Goals* framework.

Please, do not have the impression that the scenarios described so far are just an academic word game. The criticism that the qualitative differences between them are relatively narrow is of course important, but the most important thing to note here is that IEA's hypothetical "*business as usual*", which is now often used as a reference path in such studies – that is, without any policy changes, the fact that a scenario in which things will continue as usual in the world economy was not addressed in the report. This is an important methodological position: the IEA clearly states that it is no longer possible to maintain the "behavior of the old normal"; therefore, it emphasizes that the continuation of our habits and traditional energy policies cannot be among the realistic scenarios.

Let's see the scenario evaluations of IEA: *Announced Commitments Scenario* - In the case of APS, a 40% reduction in global emissions is observed by 2050. Emissions are expected to decrease in all sectors. However, these positive developments are not enough to control global warming. According to the predictions, the increase in the surface temperature of our earth at the end of the century under the APS scenario exceeds 2.1°C (since the industrial revolution). A similar conclusion is also valid under the "*Declared Commitments Scenario* - STEPS": here too, although the transition to low-carbon technologies is foreseen in almost all energy sectors, the increase in global temperature cannot be prevented, and the increase in the temperature of the earth in 2100 is calculated as 2.6°C.

Among its scenario projections, the IEA assumes that investment and financing in low-carbon-renewable energy sources will need to be doubled over the next decade. This is a breakthrough that will undoubtedly require serious costs for

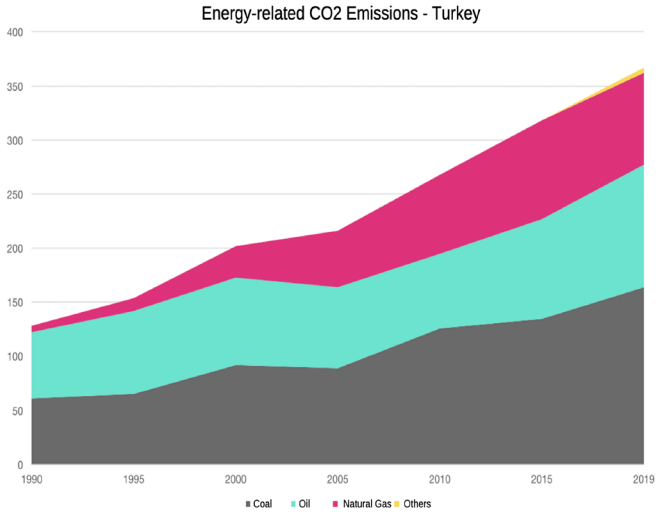
the covid crisis-weary world economy. On the employment side, *green jobs* are promising in all scenarios. In scenario analysis, the course of employment in the energy sector changes direction sharply. The projections are that the additional new employment to be created in renewable energy sources will counter the shrinking employment in the fossil fuel-based energy producer sub-sectors, and the net gain will be positive.

In the main axis of the main policy recommendations that emerged from the scenario analyzes of the IEA, a major investment and innovation move towards renewable – low carbon – energy resources is required. Double the investments to be made in solar and wind farms in the *Announced Commitments scenario*, which shows the individual announced commitments of the countries (including the national contribution statements presented in Paris 2015); The flexible dissemination of electrification in all sectors, especially in the areas of transportation and heating/cooling of houses (even being designed as a single energy source) and rapid exit from coal are presented as indispensable prerequisites.

However, the economic costs of the *exit from the coal process* are high and require serious political will. According to the IEA declarations, there are currently 8,500 coal power plants with a capacity of 2,000 GW in the world, and they meet one-third of the world's electricity production. Coal power plants are responsible for one-fifth of global greenhouse gas emissions. Existing power plants have a longer period of time before their economic life expires. According to IEA reports, 79% of energy enterprises based on coal and gas fuels in developed / industrialized countries are in a position to maintain their technologically active lives until 2030. By 2040, this rate is still 43%. In developing countries, the technological competencies of these enterprises are 83% for 2030; For 2040, it is calculated as 61%. Therefore, governments need to take very serious steps towards decarbonization and show great determination in order to realize the commitments announced in the national contribution declarations presented in Paris 2015 and now in the net-zero emission designs.

However, even under all these conditions, there are more than 300 coal power plant investments that are planned to be built, and licenses have been issued in the world. In the Strategy Document of the Ministry of Energy, we read that the capacity of coal-based power plants in Turkey is planned to be increased by another 10 thousand megawatts in the coming period.

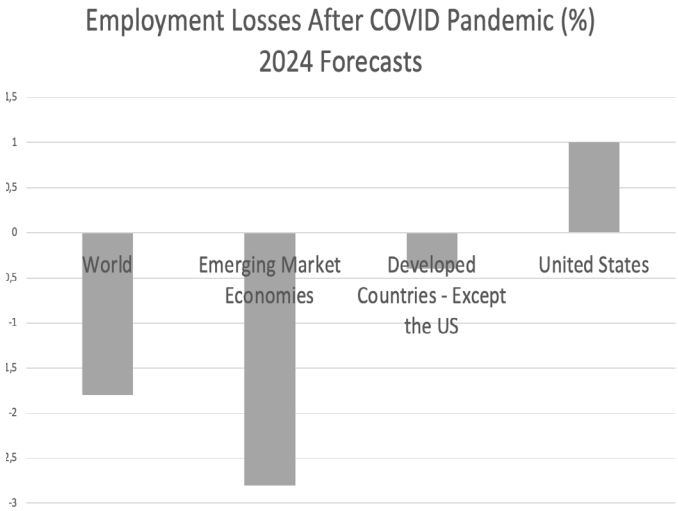
Greenhouse gas emissions from energy production based on the combustion of coal in Turkey are at the level of 164 million tons of CO2 equivalent in 2019. Compared to 61 million tons of emissions in 1990, this represents an increase of 168%. By comparison, the same figures for EU28 countries are a reduction from 1,768 mt of Coe in 1990 to 706 mt of emissions in 2019; For Poland, which can be shown as the closest coal country to us, we saw a decline from 291 million tons in 1990 to 170 million tons in 2019. In a conjuncture where coal-based emissions are in a serious reduction process in certain countries, the fact that Turkey has almost doubled its greenhouse gas emissions from coal discredits Turkey in the field of climate diplomacy and pushes it into loneliness.



Despite all this, there are also positive steps. For example, the G7 countries announced that they would no longer offer new support to coal power plants; China's announcement that it will not invest in new coal power plants abroad is an important step. More concrete and meaningful steps are also known: for example, according to the IEA's report titled "The Role of Low-Carbon Fuels in Energy Transformation," direct incentives given to coal producers in the world in 2020 amount to 18 billion dollars. Even their removal will now be an important signal in the coal industry, which has lost its cost advantage in electricity generation per

megawatt hour compared to wind and solar power plants.

On the other hand, while the IMF's World Economic Outlook report reduces the growth expected in the world economy by 0.1% on average; He predicted that the gap between developed and underdeveloped economies would deepen.



According to IMF projections, while the pre-covid production level is expected to be reached in 2022 in developed countries, it will extend to 2024 in underdeveloped economies; In employment, it was shared that by 2022, only two-thirds of the pre-covid level could be reached (excluding the US economy).

The International Trade Union Confederation (ITUC), in its Global Unions statement published before the IMF-World Bank joint meetings, emphasized that "an active public investment policy is necessary to compensate for job losses and regain pre-covid growth rates. However, the warnings that the international financial network should not deviate from *austerity* policies on the grounds that the increase in public borrowing would suppress global financial markets was also reflected in the *Fiscal Monitor* report of the IMF.

As a matter of fact, despite all the negative scenarios in the WEO, the traditional stance against active fiscal policy continues. So much so, for example, that ActionAid-PSI-EI emphasized that this chronic reflex of expansionary fiscal policies has now turned into a race to the bottom – the emerging "market" economies are observing each other and are forced to accept the cutting of public expenditures as an indisputable necessity.

A more egalitarian and more effective exit from the crisis based on both the green transformation in energy and the covid pandemic is to go beyond the traditional memorizations.

Google's Ban on Climate Change

Başak Bozoğlu

Google has come to the fore with a new decision. Advertisements we watch consciously or unconsciously greatly impact our behavior and thought systems in every aspect of our lives. The company earn billions of dollars from its advertising content following hot agendas all over the world. Recently, Google has updated its advertising policies regarding climate change contents.

During the COVID-19 pandemic, many anti-vaccine content that lacks scientific knowledge also produced by different organizations through Google Ad system. Spreading false information through a company that has $146.92 billion ad revenue on a health issue that affects the whole world was seen as a major threat. People criticized Google for the spread of false information that can create harmful social impact. In return, Google decided to monitor the advertisements that promote anti-vaccine campaigns which does not based on scientific facts. After the COVID-19 situation, Google now decided to apply the same procedure on climate change issues. The Google Ads team wrote that "in recent years, we've heard directly from a growing number of our advertising and publisher partners who have expressed concerns about ads that run alongside or promote inaccurate claims about climate change." The main purpose is to share and disseminate accurate information, not subjective and unscientific information about climate change.

According to updating, Google advertisers, publishers, YouTube creators will prohibit ads and content that are not based on scientific facts about climate-related topics and climate change actions. With the new policy, Google aims to prevent the monetization through scientifically inaccurate climate change contents that may hinder people's awareness. Google's subsidiary organization YouTube, also will be involved in such a climate change ban for the first time. According to Statista, last year, YouTube's global advertising revenues increased to $19.77 billion from $15.15 billion. Formerly, YouTube banned and limited social tragic events, firearms, tobacco, sexual content, and misinformation that claims COVID vaccines that will kill people, prevent women and men's fertility, and implement microchips on the human body. Lastly, adding false anti-climate change content to the list is an essential step for sharing correct information. Social media companies, Instagram, Facebook, and Twitter, also join this policy to ban ads on their platforms. According to Avaaz report named "Why is YouTube Broadcasting Climate Misinformation to Millions", which published in 2020, inappropriate and inaccurate climate videos received more than 21 million views with frequent ads on YouTube. Therefore, the policies that ban access and eliminate these view numbers to these contents can be effective in preventing disinformation about climate.

In fact, Google is the largest digital ads seller, and misinformation is one of the most challenging areas to follow and control. Therefore, questions arose as to how

Google would control all climate change misinformation. In the ads and monetization policies on climate change announcement, they claimed that "we will use a combination of automated tools and human review to enforce this policy against violating publisher content, Google-served ads, and YouTube videos that are monetizing via YouTube's Partner Program." However, YouTube, generally known for its algorithmic decision-making system, does not work with high accuracy. It is already a question of whether Google can control YouTube and its content. According to the "YouTube Regrets" report of the Mozilla Foundation that is published in July 2021, 12,2% of the reported videos contain misinformation and 40% of these videos are accessed through recommendation system. Hence, there is still room for improvement for the companies.

The only step Google has taken is not only about ads, but also Google has been working on sustainability since its establishment in 1998. In 2007, Google achieved become the first significant company to reach carbon neutral, and they have matched 100% of the electricity in their operations with renewable energy. As a major energy consuming company, Google's actions on climate change create significant impact even alone. Renewable energy, and recycling are critical sources for the buildings, transportation, and gigantic data centers Google and its subsidiaries use. year Google shares its environmental report and shares charts, progress, and plans both insight and rest of the world. For instance, Google is

*designing efficient data centers to create more energy efficiency, and emission reduction
*providing their centers to carbon-free energy, which was matched 100% of electricity consumption provided with renewable energy since 2019
*creating sustainable workplaces from saving water to food waste prevented
*building better devices and services with recycled or renewable materials.

Although many parties debate the goodwill of companies like Google and YouTube, it is indisputably one of the largest companies in the world. Worldwide more than 3 billion people use Google every day. Thus, every step taken by a company with such an enormous impact on climate change has the power to have a positive effect on the world and people. Preventing advertisements containing false information on climate-related is one of them.

Energy Independence: Assuring the Future of Ukraine

Erkin Sancarbaba

After 30 years of its independence, Ukraine has a crucial economic and geopolitical role in the region. It is the second-largest country in Europe with 603.549 km^2 acreage. Located as the neighbor of the European Union and Russia, Ukraine has a strategic significance that puts the country forward. On the other hand, the country's turbulent political history keeps the instability risks alive. Alongside the structural problems, which chronically exist in most of the post-Soviet countries, such as corruption and heavy going bureaucracy, the country as well struggles against separatist terrorist organizations for years in its Eastern part. In addition to all these, one of the most challenging issues that the country faces is assuring its energy independence. It is a much more knotted matter than war in the Donbas region or country's campaign for enhancing its cultural representation.

Ukraine's over-reliance on Russia for the energy transport revenues and also for the coal and uranium for its domestic energy demand endangers the country's economic and political independence. Moreover, Russia's efforts for differentiating energy transmission lines within the scope of the projects such as Nord Stream 2, TurkStream, Blue Stream, and Yamal-Europe Gas Pipeline are considered by some experts as the weaponization of energy against not only the European Union but also Ukraine. The uncertainty that the aforementioned state of affairs creates, already evolved into a threat to Ukraine's energy future and extensive national interests.

Ukraine has a dependency on imports in energy provision that for around 33% of its natural gas, 50% of its coal, and 83% of its oil consumption. Thanks to nuclear energy production (83 Terawatt hours), the country has a high domestic production that provides approximately %65 of the country's total energy demand. This makes Ukraine the world's seventh-highest nuclear energy producer. These numbers are quite impressive when the condition of the country's aging Soviet-era nuclear reactors is not taken into account. It is foreseeable that the earlier-mentioned self-sufficiency rate might go into a downtrend in the near future. Additively, armed clashes and the instability in the Donbas region bring the extraction and the transportation of the coal to a standstill as well as the electricity generation from co-generation plants. As a result, the country imports nearly 13.8 Mtoe of coal annually. The two aforesaid sources, which are the backbones of Ukraine's energy provision, are highly reliant on Russia. Over 55% of the country's enriched uranium and 64% of its coal provided from Russian sources.

Despite the tensions between the two countries, Ukraine, still has a vital role in transmitting Russian gas to European markets. Although Ukraine ceases importing natural gas from Russia, its dependence on Gazprom for transit fees of natural gas still exists. Ukraine receives 3 billion dollars per annum, which is nearly 2.5% of the country's GDP, as a result of its position as Russia's main natural gas transmission route to Europe.

However, it can be a delusion to assume that the Russian

government's approach to Ukraine as a long-term trade partner in the energy sector. Russia's undergoing strategy to bypass Ukraine on energy transmission becomes definite with the construction of the projects like Nord Stream 2 and TurkStream. These two projects have the potential to almost deprive Ukraine of the transit fees of 90 billion cubic meters of gas per year. Furthermore, by eliminating Ukraine from its natural gas transportation route, Russia will no longer have to abstain from the use of force more intensely in the possible conflict scenarios because of the absence of economic reasons. This situation jeopardizes the economic and physical security of Ukraine besides the regional stability.

When it comes to petroleum, Ukraine's deep dependence on external resources attracts attention. In 2020, Belarus and Russia supplied 65% of diesel, 40% of petroleum, and 49% of liquefied petroleum gas consumed in the country. Twenty years ago, with its six big oil refineries, Ukraine was a self-sufficient country in petroleum products. Today, only one of them is still active. Through modernizing the refineries that halt production, it is possible to reduce foreign-source dependency.

In addition to all these, there are up and coming developments, such as the decision of the Ukrainian government to synchronize the Ukrainian energy system with the ENTSO-E network, which allows electrical current to flow easily between European countries. The full integration will be established in 2023. It is significant cooperation between Ukraine and Europe which has the potential to diminish the energy security risk of Ukraine.

In conclusion, Ukraine is coming up against a colossal challenge that is about preserving the country's economic and physical security. While celebrating the 30th year of political independence, the Kyiv government must ensure that the energy independence of the country is following it. By means of modernizing the energy infrastructure and reactivating production facilities, Ukraine may reduce its reliance on external sources and achieve energy self-sufficiency. Finally, with an effective foreign policy that focuses on maintaining the country's position as a natural gas transmitter, Ukraine can overcome the sovereignty risk.

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