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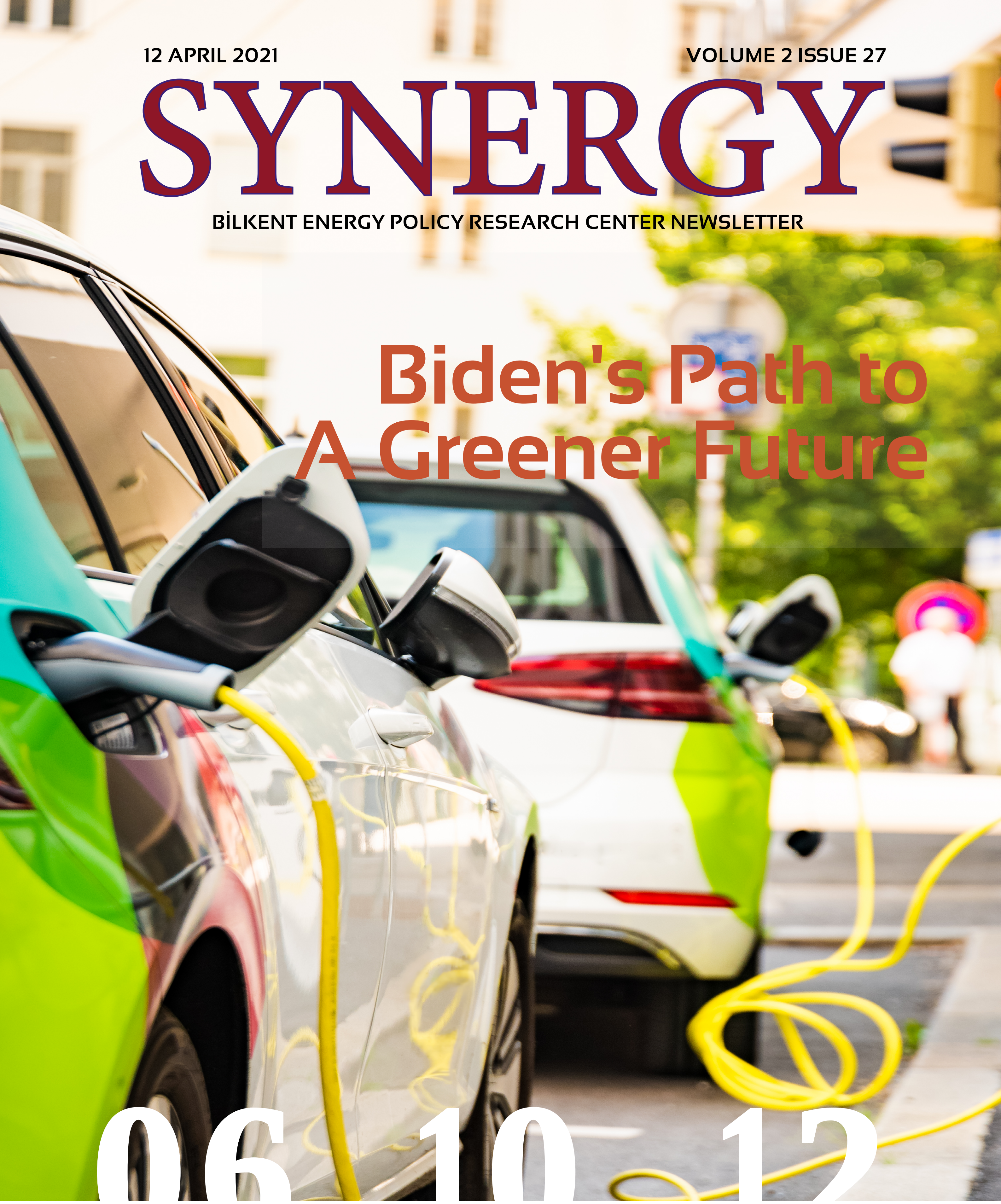

Biden's Path to A Greener Future

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BRENT OIL	63.14 $/BL	GASOLINE	7.15 ₺/LT
USD/TRY	8.16	DIESEL	6.51 ₺/LT
EUR/TRY	9.72	FUEL OIL	5.25

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Biden's Infrastructure Plan: Path to a Greener Future?

Selin Kumbaracı

US President Joe Biden recently announced a sizable infrastructure plan—totaling $2 trillion—designed to bring about the wholesale transformation of US infrastructure so that it supports the clean energy transition Biden is pushing for.

It is worth noting that the American Jobs Plan, as the infrastructure package is called, is not exclusively related to climate—which would have a harder time getting through the Senate. Nonetheless, the plan seeks to extend a level of government assistance towards climate change mitigation that has previously not been seen in the United States, with the plan having provisions to combat climate change interwoven into many different issues.

Some of the more explicit measures can be divided broadly into two groups, with the first including the support granted to renewable energy and the improvement of the electric grid and the second pertaining to the backing of electric vehicles and the necessary charging infrastructure.

With regards to the first focus area, the significance of improving and modernizing the electric grid so as to make it more resilient and reliable has particularly been emphasized in light of the blackouts that hit Texas.

This area can also be further detailed as one which includes the building of new transmission lines, which would take on an incredibly important role in terms of disbursing wind and solar power throughout the United States so as to replace the electricity that originates from coal and natural gas.

These transmission lines are crucial for reaching Biden's target, as expressed in the proposed 'clean energy standard' mandate, wherein utilities will be producing power with net-zero greenhouse gas emissions in less than 15 years, by the year 2035. This is not the only arena in which they are critical—extra lines would also enable power sharing by various different regions in a crisis (like those caused by extreme weather events).

Given that cars and electric power plants constitute the two largest greenhouse gas sources of the United States, the reasoning behind the second specific focus area is quite clear.

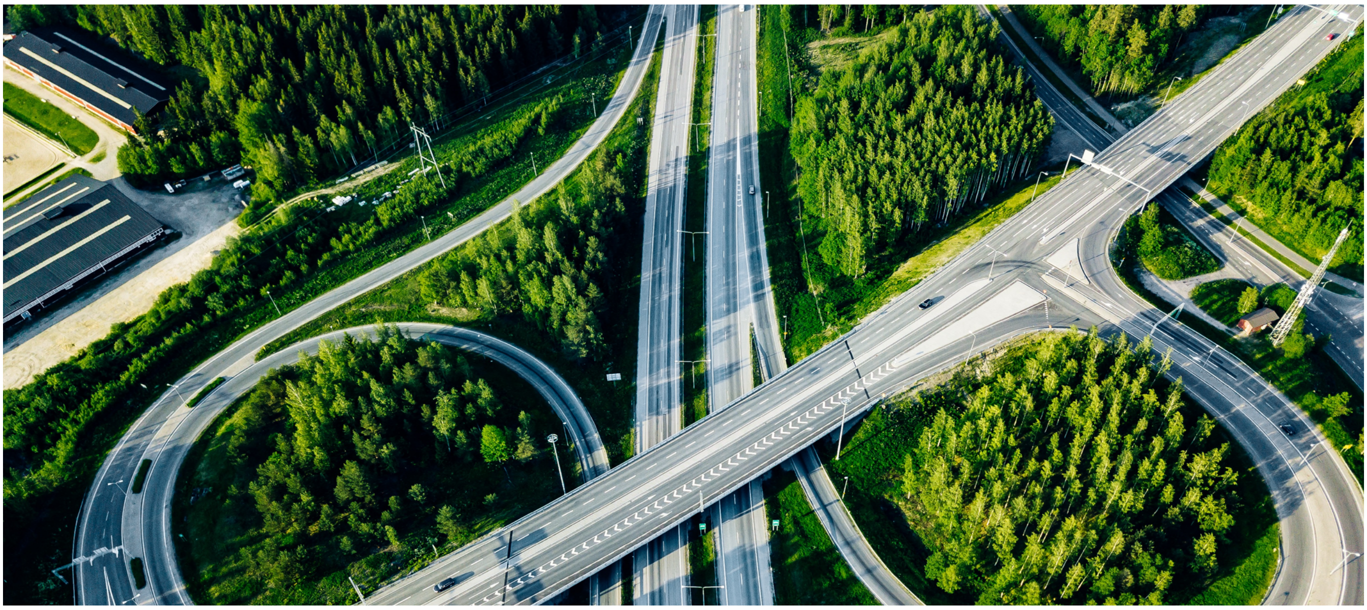
The expenditure on the production and purchase of electric vehicles that is proposed also pertains to the provision of incentives to companies producing batteries for electric vehicles domestically, in the US (as opposed to in China).
A related goal is that of decreasing the cost of purchasing an electric vehicle in addition to increasing charging stations for such vehicles to promote their uptake. However, it is argued by experts that the planned number of charging stations—approximately half a million—is not nearly enough to carry electric vehicles into the mainstream arena.

THE US PRESIDENT DOES NOT LOOK SET TO BACK DOWN IN ORDER TO APPEASE REPUBLICAN DEMANDS. AS WHITE HOUSE NATIONAL CLIMATE ADVISOR, GINA MCCARTHY HAS EXPRESSED, "WE DON'T WANT TO JUST MANAGE TO THE FUTURE, WE WANT TO WIN IT."

In addition to these two points of focus, though, there are much more subtle developments as well. These include the way in which roads, bridges, and airports are being planned to have their resilience against extreme weather events (spurred on by climate change) strengthened, the weatherization of buildings in order to increase their energy efficiency, and the directing of funds toward research and development in clean technology.

The plan earmarks over $350 billion for measures directly related to clean energy, like the $100 billion for the electric grid and clean energy, $46 billion for clean energy manufacturing, and $35 billion for climate technology. On top of this, there is also an estimated $400 billion that will contribute to this infrastructural transformation by enlarging tax credits for generating as well as storing clean energy.

These proposed tax credits are especially being received warmly by industry stakeholders. This is due to how the credits significantly boost predictability by giving a 10-year



extension to the production and investment credits claimed by those generating renewable energy. This is in contrast to how, in the past, Congress had to decide to repeatedly prolong the tax credit scheme afforded to solar and wind power, with these extensions taking place either at the last minute or even after the credits had already expired.

This boost in predictability imparts upon investors the necessary confidence, in the long term, to be able to divert a higher amount of private capital into the sector. As put by Paul Bledsoe, former climate adviser to the Clinton administration, and currently at the Progressive Policy Institute, "This now puts the entire clean energy transition into hyperdrive (...) The thing it does, I think for the first time truly ever, is provide utter certainty for business investment in clean energy."

The chief executive of the American Council on Renewable Energy, Gregory Wetstone, on a similar note, argues, "Predictability is going to make it a lot easier to get the investment we're going to need to secure the growth necessary to be in the ballpark of addressing climate change."

This infrastructure plan, as can be predicted, is not set to be accepted with bipartisan support. It is instead being criticized as insufficiently ambitious by more progressive Democrats and as overly spendthrift by many Republicans. Most of the backing the package is receiving appears to be from those who posit that it is a good start—despite not being the final result.

Indeed, more climate commitments are expected from the Biden administration in April, which some are calling "Earth Month." This month, in addition to the proposed infrastructure plan, the White House will also be holding a climate summit (virtually) with a large number of heads of state and government, as well as announcing an update to the US national pledge under the Paris Agreement as to how much of a carbon emission reduction it is targeting.

At the moment, however, it might be wiser to focus on what is most likely to constitute the most significant obstacle for the climate action Biden is envisioning—namely, Congress. This is especially the case in terms of the approval that the administration needs from Congress to raise the corporate tax rate, which will contribute toward actually paying the $2 trillion attached to the ambitious infrastructure plan.

Whether or not the slim Democratic majority that is present in Congress will be enough to get Biden's plan approved remains to be seen, but the US President does not look set to back down in order to appease Republican demands. As White House National Climate Advisor, Gina McCarthy has expressed, "We don't want to just manage to the future, we want to win it."

Oil Pipeline Through African National Parks

Mihael Gubas

Despite numerous global political warnings and market analyzes that investments in fossil fuels are increasingly portrayed as extremely risky projects (due to expected changes in laws around the world that should start charging a carbon tax), excavation of Africa's largest crude oil pipeline was due to begin last month, from Uganda to Tanzania. The start of work has reportedly been delayed by a month due to the recent death of Tanzania's president, which was key to the project, but in fact, public pressure is so strong that investors have bought time to consider withdrawing from the project.

The East African Crude Oil Pipeline (EACOP) is planned as a 1,443-kilometer pipeline to transport oil from the Albert (Mobutu Sese Seko) field, the seventh-largest lake in Africa, and the second largest lake in Uganda, across the area of national parks to the coastal city of Tango, the second largest port in Tanzania. Part of the oil will supply local fuel needs, and part would be exported to the international market. Without the latter, it doesn't go well, and the shares in the ownership of the pipeline testify to the distribution of cakes. As much as 45 percent of the ownership of the pipeline is owned by French oil giant Total, another 35 percent is owned by China National Offshore Oil Corporation, for a total of 80 percent ownership of the project, while the remaining 20 percent is shared between Uganda National Pipeline Company which owns 15 percent ownership, and ultimately, Tanzania Petroleum Development Corporation has a 5 percent ownership stake. But international influence does not end there. With the pipeline being financed by debt worth $ 2.5 billion, Uganda and Tanzania are counting on Standard Bank loans from South Africa and Total on deposits from Japan's Sumitomo Mitsui Banking Corporation.

Although this pipeline has been planned for 15 years, it was signed only in October 2020, and due to increasing public pressure, it is currently hanging in the balance, as it seems that South African Standard Bank is about to withdraw the negative publicity of the project increasingly promising taxes and fees for further climate pollution. The pressure on European companies operating outside the home continent is growing at home as well, as the European Union plans various forms of carbon finance penalties and levies. Although this has been talked about for some time, the matter is becoming serious enough that investors in global projects are also wondering about the future value of the investment. If the negative contribution to the climate is converted into financial penalties, then potential investments in oil get a negative sign in the spreadsheets.

Meanwhile, the people are doing their part, protecting the public interest. Nearly a million people have signed a petition to shut down the East African pipeline, and activists are "furiously"

lobbying international banks not to approve loans for the project. Activists point out that Ugandan residents are up to one hundred percent dependent on nature and the relationship with it because nature dictates their social and environmental structure, so the passage of the pipeline through national parks terribly angers locals. Any environmental pollution has an immeasurably high cost to the lives of the population. The final decision on whether the project goes further will reportedly be made by the end of March.

It is estimated that 1.7 billion barrels of renewable oil were discovered in the basin of Lake Albert, on the border between Uganda and the Democratic Republic of Congo. According to current plans, oil extraction should take place in two fields managed by Total and the Chinese state oil company CNOOC, in partnership, writes Climate Change News. The East African Crude Oil Pipeline (EACOP) is expected to transport 216,000 barrels of heavy crude oil daily from Uganda's oil fields to Tanga's port of Tanzania through "environmentally sensitive areas." If it is ever completed, it will be the longest heated oil pipeline in the world. Due to the low sulfur content, the oil will be heated above 50 ° C. Heat stations and a high-voltage power supply line is planned along the pipeline, which will be buried for safety reasons. Plans for a refinery are also underway. When it burns, the oil transported by pipeline will emit 33 million tons of CO_2 a year, according to NGO estimates. That's more than the greenhouse gas emissions that Uganda and Tanzania currently produce together.

In addition to the horrific greenhouse gas emissions at the excavation site, the pipeline threatens a 2,000-square-kilometer protected area of Murchison Falls National Park in Uganda, where protected wildlife habitats crucial to the conservation of elephants, lions, and chimpanzees are located. As many as ten oil wells are planned in that national park. Although this information will sound extremely strange to most, the French Total sends a statement explaining that they "voluntarily limit their activities in the park to only 1 percent of its area, despite permits covering 10 percent of the protected area. However, this is no longer enough for the public, so given the climate consequences facing countries on the global periphery, informed residents are finally overwhelmed. No wonder then that the petition was signed by more than a million people. However, the devastation of protected nature by pipeline does not stop at one national park, but the plan is for it to pass under the Nile River and reach the area of the Bugoma forest reserve, then the Lake Victoria basin on which 40

million people depend (for water and food) and international environmental significance. In order for the pipeline to be realized, it is also necessary to relocate 723 households to which a new house or financial compensation is planned. However, five years after the beginning of preparations for the construction of the pipeline, households whose plots have already been registered have not received any compensation; land use is prohibited while waiting for the start of the project. As people in the area depend on the crops they grow for their diet, frustration grows. Even the promises of new jobs that the pipeline would bring do not bring comfort to local authorities who say they doubt the realization of it, as the local population does not have the qualifications needed to work in the oil industry.

At the beginning of the month, 263 environmental organizations joined the current descriptive situation and sent an appeal to the addresses of 25 banks not to finance the pipeline. The open letter notes that the project is "incompatible" with the goals of the Paris Climate Agreement and "obviously irresponsible" at a time of increasing climate impacts. Several banks have already distanced themselves from the project. Barclays and Credit Suisse do not support EACOP, while the African Development Bank says the pipeline is not part of its lending program and is committed to renewable energy. But South Africa's Standard Bank - which lends to Uganda and Tanzania - says it is waiting for a comprehensive social and environmental assessment before making a decision. Their withdrawal could deal a final blow to the suspension of the project. But equally important is the withdrawal of European credit institutions, which are finding various ways to participate at least indirectly in the distribution of this cake, so the British are building an international airport in the area of the pipeline. Activists point out that the participation of any European institutions in the construction of the pipeline would expose Europe's double standards: a clean environment at home, investment in pollution in Africa. Doubts about this project have intensified in the last year due to global oil price movements and a significant drop in demand caused by quarantines around the world. Whether the project goes further or not will ultimately likely depend on the decisions of the Ugandan and Tanzanian governments, and their views will be greatly influenced by the possibility of winning the next election, especially in Tanzania, given the recent death of the president. Public consensus against the pipeline has never been more important, but also, media freedom and the state of civil society in Tanzania is far from what such a consensus can produce.

Not a Comfortable 2021 So Far

Barış Sanlı

Yesterday, Israel news sources claimed a cyberattack on Iran's Natanz nuclear facilities. Iran declared the event nuclear terrorism. Following the events, Houthis attacked Saudi oil facilities with limited damage. Oil prices barely moved positively because there are still cards in the deck.

During the Trump era, the US was against high prices and was also against low prices. Trump even pushed OPEC+ to reconcile after a spat between Muhammed bin Salman- MbS and Putin. The Biden era will be different. The first sign was the call between US Energy Secretary and Saudi Energy Minister. The emphasis was on the word "affordable." After the OPEC+ decision, the US and Iran indirect talks have restarted. It is most likely planned weeks in advance. But the phone call may also include bits of these upcoming talks. There are still signs of the US position softening on Iran and Venezuela. This will put a cap on the price hikes.

> DURING THE TRUMP ERA, THE US WAS AGAINST HIGH PRICES AND WAS ALSO AGAINST LOW PRICES. THE BIDEN ERA WILL BE DIFFERENT.

There are also invisible yet effective parameters such as the exact volume of Chinese crude oil stocks. OPEC+ is targeting OECD stocks to balance the market. But China is all about storing commodities this year. You name it, and it is in their shopping list: crude oil, copper, nickel, cobalt, wheat, barley, corn... This creates enormous stress on world food prices. But also creates suspicions on the level of crude oil stocks around the world.

So far, Chinese Premier Li Keqing has listened to the entrepreneurs and has given the signal that China will further strengthen its control over raw materials. Chinese growth is not a green take-off but energy-intensive and gradual. Coal, raw materials, and other agricultural products and their security are even more essential now than before. When you consider the Chinese diplomatic spat with other countries, very few countries remained spared from Chinese criticisms.

If you are one of these "in net-zero, we believe" kind of person, the net and zero part of this belief system is highly eroded by finance communities' abracadabra accounting practices. "Avoided emissions" became a life jacket for most industries, and lots of them claiming their net-zero achievements. However, things are getting messier in detail. This is a major problem, which may end up with all companies being net-zero and increasing emissions.

One fundamental problem is the split between the communities. There are a group of people trying to save the world, and there is an increasing number of people trying to survive. The decrease in middle-income groups is a wake-up call for everyone, especially degrowthism. The rise in food prices is worrisome. On the one hand, you have fewer jobs, more poverty. On the other hand, you have booming food inflation and tax regimes.

China and the US are expected to continue their growth trajectory. At the same time, Europe may be a laggard. Germany may end up closing for another number of weeks. The vaccination speed is one parameter, but the population's minimum share to be vaccinated is another important point.

I MAY CALL 75 $/BARREL AS THE JULY-AUGUST PRICE FOR OIL, BUT THE BIDEN ADMINISTRATION MAY OPEN IRAN AND VENEZUELA'S GATES AND LET IT STAY BELOW 45-55$/BARREL.

In this digital age, measles has been resurrected due to conspiracy theories spread over the digital platforms. More parents refrain from vaccinating their toddlers. When it comes to covid19, the success of US vaccination may need more time and people. If an important share of adults rejects inoculations, herd immunity may never happen. In addition to that, Ugur Sahin, founder of BioNTech, believes there may be third doses and more doses for every 12-18 months. This thing will not disappear anytime soon.

So the reference scenario becomes the Covid19 to last until 2022-2023. The regular outbreaks may prolong energy demand stagnation in emerging countries. Probably we will have five months of higher activity and five months of covid related restricted activity periods. Inflation is not a good thing for the already punched-down middle class. US looks like trying to balance OPEC+ decisions with more oil supply coming out of sanctions. The lower oil prices are already affecting Middle Eastern countries.

The picture does not look bright. But the digital transformation that has been accelerated in the past couple of months may further speed up. Post Ramadan period in the Middle East has to be watched carefully. Drone-based attacks on Saudi Arabia will probably evolve into the next stage. I may call 75 $/barrel as the July-August price for oil, but the Biden administration may open Iran and Venezuela's gates and let it stay below 45-55$/barrel. I bet on neither. However, one question remains open. They were the faithful consumers of energy products and the source of demand growth. Who will save the middle class from the extended crisis?

Keeping Germans Down: Nord Stream II

Onurcan Mısır

The construction of Nord Stream II, a pipeline project aimed to transport Russian gas directly to Germany through the Baltic Sea, is currently the most significant test and hurdle that the Biden administration has to face. Making robust statements against Russia since they took office, the Biden administration seems poised to take potent actions in Ukraine and Eastern Europe. However, these actions become more fragile when Germany and the EU are added to the equilibrium. When the risk of alienating vital allies arises, it becomes clear that everything need not be solved through coercion, but more calculated methods are necessary.

First of all, one has to look at the necessities that enabled this project. Russia currently supplies almost 40 percent of Europe's gas needs. In total, nearly 200 billion cubic meters of LNG are now imported from the country annually. The US is opposed to the construction of Nord Stream II mainly due to concerns regarding the ene1rgy security of Europe and the current situation of Ukraine, which is very fragile under oppression from both sides. When completed, Nord Stream 2 is expected to transport about a quarter of Russian gas exports. It is expected to change the routes by which gas enters European markets: Less gas will be imported through pipelines that cross Ukraine. Cutoffs in transportation resulting from Russian-Ukrainian disputes in the 2000s forced the European Union to interconnect the gas market inside the union and construct better infrastructure for their pipeline network. These disruptions also encouraged Germany and other European states to support the construction of new pipelines bypassing Ukraine, such as Nord Stream and Turk Stream, thereby minimizing the risk to supplies from Russian-Ukrainian conflicts. In a similar effort, Germany took the chance to build a direct pipeline in the Baltic Sea with Russian cooperation, thereby circumventing Ukraine, Poland, and the Baltic States. Such an effort will definitely lower Germany's energy costs and deny those countries the transshipment fees that have long been a fundamental part of their incomes.

Under these circumstances, it is clear that neither Germany nor Russia would be willing to give up on the project, and a potential US sanction on its most prominent ally in Europe would be understood as an insult. In the end, how would the US react if European Union decided to put sanctions on a US project? The EU made it clear that it stands with Germany, and any sanction on European firms would be seen as disrespectful. Hence, the sanction would probably do more harm than good, and one should seek more effective ways to maintain energy security in Europe if this is the primary concern.

Firstly, the US must understand that the Nord Stream II project was initiated with Germany's legitimate concerns. Since the instability in Ukraine is damaging to the European energy security, one has to look for ways to make Ukraine more peaceful for multilateral economic relations. The US has to understand its mistakes in Ukraine. As John Mearsheimer has argued, it should work with Russia to make Ukraine an independently stable country between Russia and Europe. If it acts as an "Economic Buffer Zone" with an independent military force, Ukraine has the tremendous potential to foster economic ties between Russia and Europe. Since the Nord Stream II is almost 95% completed, the US should recognize its being and rather than trying to stop it with an inconclusive effort, should accept that its contribution to Europe as a fact now. For further energy security, it may help end the conflict in Ukraine and support other energy relations with countries neighboring Europe. More pipelines, more facilities, and more partners to reach a competitive gas market seem to be the only way out of current energy security crises. Europe would be satisfied with more options, countries that have the potential to act as an energy trade hub would be satisfied with transportation and market fees. Even Russia, which is the major LNG monopoly in the Eurasian region would be satisfied, for it would reach more customers. Ukraine as an economic buffer zone, and Turkey as the holder of two important straits can help achieve such a win-win result for both the suppliers and consumers of gas.

HASTINGS ISMAY, 1ST SECRETARY-GENERAL OF NATO, ONCE SAID THAT THE ALLIANCE'S PURPOSE WAS "TO KEEP THE RUSSIANS OUT, THE AMERICANS IN, AND THE GERMANS DOWN."

Hastings Ismay, 1st Secretary-General of NATO, once said that the alliance's purpose was "to keep the Russians out, the Americans in, and the Germans down." The Biden administration is clearly striving to do so. However, their actions to establish a liberal regime in Ukraine and the discussion of economic sanctions against the biggest NATO country in Europe do nothing to achieve this aim. Instead, it provokes the Russians, alienates the Germans, and has the potential to leave the Americans out of the equilibrium altogether.

Uranium Mining in the African Continent

Fatih D. Oral

Last month, French nuclear group Orano's Compagnie minière d'Akokan (COMINAK) uranium mine in Niger closed due to the depletion of the reserves, as the mine's board of directors announced. It was one of the biggest uranium mines in the world, and the mine carried out the last blast on March 25 and ceased production on March 31. Today, uranium has been a significant raw material, especially for nuclear energy production. While Kazakhstan, Australia, and Canada have 50% of uranium reserves in the world, resources in the African continent constitute approximately 20% of the total reserves. Uranium deposits in South Africa, Niger, Namibia, Botswana, and Tanzania have been used actively. The first uranium exploration activities on the continent took place in 1945 by the United Kingdom, and the production started in 1952. After this important discovery of the United Kingdom, France began uranium production activities in Gabon and Niger.

Uranium is the most important fuel used in nuclear power, and it is a low-carbon technology to generate electricity. According to the data of the International Energy Agency, the world will increase its energy consumption by 18% until 2030, and the energy consumption will increase by 39% in 2050. Then, the produced nuclear energy using uranium will have a significant role in meeting this growing demand. Moreover, the usage amount and variety of uranium have been increasing. Therefore, uranium has been used as nuclear power plant fuel and powering nuclear submarines and nuclear weapons by military, armor coating of military equipment, ship and aircraft construction, production reactors, and plutonium and hydrogen bomb construction. Especially since it is used in atomic production, great importance is attached to ensuring its security, and international restrictions are applied to its production and usage.

Today, Niger has two significant uranium mines providing about 6% of world mining output from Africa's highest-grade uranium ores. The uranium in Niger was discovered 65 years ago by the French Bureau de Recherches Geologiques et Minieres (BRGM). Then, the French Atomic Energy Commission (CEA) pioneered further uranium exploration and mining activities. Niger was leading uranium production in Africa until overtaken by Namibia. Imouren mine is the largest uranium reserve in Africa and the second-largest uranium reserve in the world. The SOMAIR and the closed COMINAK are other uranium mines in Niger. Those three mines are located in the Arlit and Akokan regions of the capital Niamey, 87% of the uranium mined in this area is owned by French nuclear power company Orano Group. Orano holds the operating rights for Uranium in Niger for 46 years. The uranium extracted from here meets approximately one-third of the France's electricity demand. Uranium mines in Niger supply required raw material for 59 nuclear energy plants of France.

Namibia has important uranium mines capable of providing 10% of world mining output. The country, which can produce

10% of the uranium mined in the world with its two facilities, ranks fourth in uranium production after Kazakhstan, Canada, and Australia. Uranium was first discovered in the Namib Desert 93 years ago by Captain G. Peter Louw in the Rössing Mountains vicinity. Although Captain G. Peter Louw tried promoting uranium prospecting in the Namib Desert, there was no prospecting activity until the 1950s. British multinational mining company Anglo America Corporation drilled and performed some underground exploration; however, they could not find stable uranium values and affluent economic prospects, and the search was abandoned.

In 1966 Anglo Australian Rio Tinto mining group obtained exploration rights, and the first commercial uranium mine began operating in 1976. In 2011, the Namibian government announced that its state-owned mining company, Epangelo, would have exclusive control over new strategic minerals developments, including uranium. This regulation cannot apply retrospectively or amount to the nationalization of existing mines or leases. As a consequence of this regulation, new exploration licenses are granted only to Epangelo Mining Ltd., and others interested need to negotiate farm-ins with it to become joint-venture partners. Nowadays, China and India have been looking to acquire uranium from Namibia. Chinese companies, namely Husab and Langer Heinrich, have taken major equity positions. In 2018, Rio Tinto announced the agreement which sells its majority share in Rössing Uranium Limited to China Uranium Corporation Limited (CNUC). The Husab Uranium Project, undertaken by the state company in the nuclear field of China, where uranium will be mined and processed as raw material, has reached full capacity. Besides, it is calculated that the reserve in the Husab Project can supply 40 years of fuel for a nuclear power plant with an electricity capacity of 20 thousand megawatts. Therefore, the country, which established one of the most extensive uranium facilities in the world, has a plan to increase its capacity by inviting foreign investors. Namibian government aims to become the second-biggest provider of uranium globally.

Although COMINAK uranium mine ceased mining activity with the closure, uranium mining is an important activity in the African continent, especially for Niger and Namibia. While French and Australian mining companies have already been active in Africa, China has been improving uranium mining activities. According to World Nuclear Association, Uranium demand is fundamentally driven by the number of operating reactors, which ultimately is driven by the demand for electricity. The purpose of nuclear energy in improving meet projected electricity demand would depend on state policy decisions affecting nuclear development and how effectively several factors such as the contemporary issues of the world, which are environmental considerations, disposal of waste, and economics. Sufficient nuclear fuel reserves exist to suffice energy markets at current and raised demand well into the future. Nevertheless, to reach their full potential, essential exploration, innovative techniques, and investment will be required to develop new mining projects and facilitate promising technologies promptly. Therefore, the role of the African continent in uranium mining will increase, and that would put forward a piece of significant evidence why Africa is observed as the continent of the future.

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