

# SYNERGY

Bilkent Energy Policy Research Center Newsletter



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## Energy Demand After Covid19

The effects of Covid19 are not over, and it may be deemed too early to talk about energy demand effects. Energy demand projections before the virus have become obsolete. We have to build new models reflecting the new dynamics of the post covid19 world. But what are these dynamics?

During our podcasts with Cüneyt Kazokoglu from FGE, we discussed how airline traffic was affected after 9/11. There are also studies on SARS disease's impact. These are two folds. After 9/11, fear factor dominated, and air travel never reached the same volume for several years. In the case of SARS, the return of air travel has become much more quick and persistent. We have to judge the fear factor and regional effects.

The fear factor from a terrorist attack fundamentally changed consumer behavior and airline operation. The terror events after 9/11 and the hunt for Bin Laden took some time to settle. SARS disease, however, can be identified and eradicated in a matter of months. We should think whether the fear factor will force another change in consumer behavior.

The second important thing we discussed was the passenger car miles. During the previous pandemics, there was a visible increase in car usage as well as purchases. People may not prefer public transport due to their concerns about hygiene. Buying a car might become a priority. Car sharing may lose its popularity. The sharing economy may face a real challenge. The disruptive – startup ideas before and after the covid19 period may look very different.

According to some statistics, commuting to the work consumes eight mb/d of world oil demand of 100 mb/d. Currently, this demand drop is visible. The gasoline demand has fallen flat around the world, and diesel is still resistant. The results are evident in crack spreads. Jet and gasoline have become much cheaper. This may



be the end of diesel as Cüneyt puts it "as a passenger car engine." Industrial wise, the diesel engine is still competitive.

When it comes to electricity demand, the house becomes the center of life again. In most of the developed and developing worlds, most of the time spent was outside the home, excluding sleep. Now, people may develop more attachment to their homes and spent more time improving living conditions than going outside for a change. For the developing world, this may increase air condition sales and demand.

A more digital world may increase the share of ICT (Information and Communication technologies) share in electricity consumption. Now the world sees a drop in electricity demand. But if we have had the data for ICT consumption, we may see a bigger share of ICT. From video conferencing to online lectures, the demand has shifted from classrooms, meeting halls to fiber optics, and radio waves. This may improve economies of scale for some businesses, and some of this behaviour will stick with us.

Natural gas demand is probably the luckiest. Prices are very low, and the coal mining sector has been affected. But there are limits to natural gas demand in a crumbling global economy. When market share is in danger, the players try to bite each other's shares. So with natural gas, the main question is about its impact on the competition between LNG and pipeline.

Smart and autonomous technologies may become a

more integral part of our life, but contrary to the narrative, they may not bring much more efficiency. As Nature Energy's latest March issue discusses, people may use these technologies to maximize their comfort. For example, a family may be shutting down its gas boiler as they sleep and starting it early in the morning after they wake up. Digital technologies may help them to start the boiler 1 hour before they wake up.

One of my favorite trends is how people became more interested in home cooking. The videos, recipes are widespread. The real question here is whether this will stick with them. Due to hygiene awareness, this trend may stay with us. The services sector and transportation will be negatively affected, but household energy consumption will grow. Competition wise, more competitive retail tariffs may become a new trend.

What to expect then? Jet demand may not come back to certain regions because of fear factors. Gasoline demand will dip in the short term but recover not very quickly but will be very strong in the medium term. Electricity demand will drop 10-15% for some time and then recover back to where it loses its momentum. Intra natural gas market wars will be much more important than intra fuel competition at least for some time. The sharing economy may not be as popular as before, but flexible working with flexible social security structures may be with us for some time to come.

Bariş Sanlı

## Reasons Behind the Mexican Strategy on the OPEC Meeting

With the efforts of Donald Trump and Saudi Arabia, the OPEC+ countries managed to set up a meeting to end the Oil Price war that has been affecting the energy market since the beginning of March. On Sunday, the party decided to come to an agreement.

OPEC+ said it would cut 9.7 million barrels a day in oil production in May and June, equivalent to almost 10 percent of global supply, and continue with lower reductions until April 2022, to stabilize global crude markets.

During the negotiations, the most shocking moment was the rejection of the production cut by Mexico. The Mexicans did not agree to cut 400,000 b/d, which was their share according to the deal.

In the end, with the effort of the American president, Donald Trump, the Mexican government agreed to cut 100,000 b/d, and the United States decided to cover the rest of the Mexican supply cut.

The motivation behind the Mexican policy was very interesting. According to the article by Javier Blas and Amy Stillman, throughout the years, the Mexican oil company signed deals with the investment banks and oil companies in the U.S. to ensure itself against lower oil prices.

Up to now, the Mexicans received \$5.1 billion in 2009, \$6.4 billion in 2015, and \$2.7 billion in 2016 during the financial crisis, political instabilities, or other price wars that caused oil prices to decrease more than expected levels.



To secure these earnings from oil, the Mexican oil hedge fund also paid \$1 billion annually to the investment banks. This year with the beginning of the oil price war, the prices declined rapidly, and the Mexican state oil company received the first payment from the investment banks last month.

According to the agreement, the Mexican oil hedge fund protects the oil price at an average of \$49 per barrel for 234,000 barrels a day in 2020. It means that regardless of the oil price, the Mexicans become able to sell 234,000 barrels a day at \$49 for Mexican oil export basket per barrel that is equal to \$60-\$65 per barrel for Brent Crude.

The Bloomberg calculations suggest that the hedge will pay close to \$6 billion for this year if the Brent Oil prices remain around \$20 per barrel. Therefore, agreeing on a supply cut meant losing this opportunity besides the share loss on the market.

Before the OPEC+ meeting, the Mexican company Pemex was still investing in new drilling new wells. They aimed to double drilling to 423 wells this year and

accelerate the development of 15 recent discoveries that happened last year.

According to the Bloomberg data, the investment in exploration rose 11% to \$11.1 billion compared to 2019. This policy was another reason for the Mexican government not to comply with OPEC+'s first deal.

Finally, when we look at Pemex's financial conditions, the situation is highly concerning. In 2019, the company ended the year with \$105.2 billion in debt. It is facing declining rates from the credit rating agencies and corruption news continuing to come. The analysts are claiming that 75% of the oil fields are generating loss under these prices. Despite the government effort, the problems remain far away from resolving.

Overall, the Mexican government relies on the oil hedge fund that would help to stabilize its fiscal budget for the end of this year. At the same time, they are trying to keep the oil company operational and protect their shares in the market by avoiding forced production cuts.

Gökberk Bilgin

BRENT OIL

30.88 \$/BL

GASOLINE

5.24 ₺/LT

USD/TRY

6.77

DIESEL

5.37 ₺/LT

EUR/TRY

7.40

FUEL OIL

2.55 ₺



## Trade, Corn and Oil

The globalized international trade flows that ranged from essential commodities such as wheat and grains over to highly complex petroleum products has had its fair share of hurt from the COVID-19 crisis. The abrupt slowdown in the economy combined with quarantine measures at the customs has created a backlog in the trade flows. Besides, the panic among the citizens concerning food shortages in the initial days had no backing. Still, the prolonged nature of the pandemic has forced extensive shutdowns globally, and it is potentially leading to interruptions in the supply chains. Based on that, some of the largest agricultural exporters in the world have been announcing domestic preventative measures for ensuring their food security by applying export quotas or, in some extreme cases, bans on exports of key agricultural commodities. So, who has so far announced the restrictive measures?

While the list is non-exhaustive, it shows the direction of the current picture from a general perspective and highlights a new reality for post-pandemic times. Food security. Having uninterrupted, reliable, and affordable access to staple food is equally, if not more, important than having energy security. While no real challenges have so far been announced globally in these terms, the possibility of it has risen, and certain measures will likely be taken in the future. The United States' response to the colonial government's threats concerning reliable food supplies in the mid-to-late 1700s can be investigated as a starting point. Benjamin Franklin's, one of the founding fathers, a famous letter titled "Homespun": Second Reply to "Vindex Patriae" that roughly outlined the future agricultural policy of the U.S. in the face of colonial

 Energy Policy Research Center		The Measures
Russia		Limit on grain exports to 7 Mio tonnes from April through June
Ukraine		Ban on buckwheat exports until July 1/Limiting wheat exports to 20.2 Mio tonnes in 19/20 season
Kazakhstan		Initial ban on flour/wheat exports/Currently quotas on the exports (200,000 tonnes of wheat and 70,000 tonnes of flour in April)
Vietnam		Ban on rice exports
Cambodia		Ban on some rice exports
India		Traders stopped exporting due to supply chain interruptions
Egypt		Stopping export of legumes for three months

food restrictions showed just how domestic policy might be implemented during times of social distress. While the culinary customs from the European society at the time looked down on the corn, it was widely available in the U.S.. Despite the social perception of it, policymakers implemented a nation-wide strategy of planting the widely available commodity. Numerous other staples were also mentioned throughout the letter such as the use of lamb, which was dropped in the U.S. from the regular diets of the citizens. Still, the main point of the letter was that when confronted with such matters, policymaking will make use of what domestic resources are available to come up with preventative measures even if it means changing the status quo in social and economic terms.

How does this reflect on our current day crisis? Perhaps, one of the few good areas the oil price crisis will positively impact will be the domain of agriculture. With the WTO already lined up for troublesome times in the post-pandemic world, the incentives that can be provided by the governments through wide import restrictions and subsidization programs will likely flourish, defying the concept of free international trade. The

correlation between crude oil and agricultural production has been a long-studied concept. With the industrialized agricultural production growing at exponential rates to feed the world's growing population, farmers have started using more and more complex and capable machinery that require substantial amounts of energy inputs, namely diesel and/or gasoline. Adding to these direct costs, the existence of indirect costs, such as pesticides and fertilizers that are manufactured through using petroleum products, present another attributing factor linking oil prices to that of agricultural production. In the U.S., nearly 10% of staple food commodity production costs were associated with energy inputs. As the price of crude oil increases, so does the production cost of food commodities. In the current low-price environment, the countries that were previously in uncompetitive spots and overwhelmed by cheap imports could follow new policies of extending their domestic production. Following the terms of the international trade theory, however, all of this would have to start under the trade protection of domestic governments through import restrictions as infant industries are relatively disadvantaged when it comes to competing with the global





giants of the industry.

To start-up the global economy in the post-pandemic world developed and developing nations could follow four scenarios, with each having two pathways respectively regarding domestic agricultural production. Developed nations could encourage conventional farming and soilless farming. The conventional method would imply increased employment opportunities in rural regions at relatively lower CapEx costs. Still, it would not adhere to the sustainability principles the world wants to achieve in the next decades due to pesticide pollution, diminishing productivity of the soil, and the deforestation effects of large-scale industrialized farming. Another option would be to encourage and possibly incentivize soilless farming. An endeavor that is usually quite costly, but with the implied productivity returns and the technological advancement opportunities it brings in the domain of agriculture, with adequate funding, it might be a more viable

choice in the long run. The developing nations face a different reality in this scenario. The costly nature of the soilless farming would be hard to implement in these nations due to credit constraints, and from the viewpoint of closing the poverty gap through employment opportunities for all, conventional farming, in the short-run, will constitute a more rational path of action.

On the other hand, the countries that do not have arable land but have the funding resources will have the sole option of pursuing soilless farming if achieving food security is their purpose. However, for countries in such regions with limited access to funding, the question remains for as to how it can be achieved, and the answer will probably be coming from the International Development Agencies and Institutions.

The Gulf nations at this point are in a quite advantaged position. While using their petroleum products for providing a

steady stream of resources for usage as inputs in the conventional farming commodities, they can invest some of the proceeds of their oil and oil product sales into the agricultural sector to benefit from increased profit returns of food commodities during times of a downturn in the oil prices. They would also be widely diversifying their economic structures away from oil & gas, all the while increasing their presence in the financial commodity markets.

How the future might play out will be a question of time and measure the strength of international organizations/institutions. But based on what has been developing, it can easily be inferred that structural changes will forego no sector and leveraging these times of changes in parallels with two different.

Still, essential industries might be a solid play for most of the nations.



## The Story Behind The Photo



Historical moment in Aramco Headquarter

As the oil markets are shocked by the decrease in demand due to COVID-19, it has been a busy agenda as April begins. The controversy between Russia and Saudi Arabia during the OPEC+ meetings increased concerns on oversupply. While the main discussion topic was who will make the first step back, Aramco made a historic moment.

As the picture illustrates, the national company of Saudi Arabia decreased its production to 12.2 million barrels per day from the approximate level of 9.5 million barrels per day.

This moment is captured just a few days after the statement by Aramco. The swing producer showed that it was not a bluff and loaded

15 of its oil tankers with 18.8 million barrels. Thirty days consumption could provide additional 600.000 barrels per day, which is more than Libya's production and maybe close to Venezuela's. This move is followed by Trump's call to Russia to open production adjustment discussions to the table.

In many ways, Saudi Arabia earned what they wanted in the first place; here is why.

1. Ongoing de-facto leadership of OPEC was denied by the participants of OPEC+ members and mainly Russia. The kingdom convinced the other members to cut the production.

2. By increasing the production to historical values

(12.3 million barrels per day), the production adjustment negotiation started from this level, even though the deal was to cut production from 11 million barrel per day, Saudi Arabia's final output will be very close to first agreement.

3. Proposed cuts will be higher, and other producers will provide most of them.

4. Even though Trump has the credits for gathering the members on the table again, it was Saudi Arabia's move put players on the table.

This heart massage will not save the oil prices from collapsing, but the producers had a moment of breathing and thought further.

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