The Economic Club of New York

Dr. Daniel Yergin
Vice Chairman, IHS Markit

Energy Markets During the COVID-19 Crisis

Video Conference
April 29, 2020

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Introduction

President Barbara Van Allen

Good afternoon. This is Barbara Van Allen, President of The Economic Club of New York. Thank you for joining us and we will get started in exactly two minutes.

Chairman Marie-Josée Kravis: Good afternoon. I'm Marie-Josée Kravis, the Chair of The Economic Club of New York and a Senior Fellow at The Hudson Institute. And as the nation's, or one of the nation's leading nonpartisan forums for discussion on economic, social and political issues, The Economic Club of New York feels a special responsibility in this time of crisis, the coronavirus crisis and economic turmoil, to bring to you the day's most relevant information regarding not only the health crisis but also economic and political issues. So we extend a special welcome to members of The Economic Clubs of Chicago and Washington as well as those from the New York Women's Forum and British American Business who have also been invited to join the call today.

Before we begin, I really would like to thank our healthcare workers, our first-line workers, whether they be people working in grocery stores, in transportation, in a number of public positions that help make our lives safer and easier and thank them for their commitment and their devotion to the country and to making the lives of all of their co-citizens much safer. So I want to extend special thanks and remind these people that we have them in our thoughts and our prayers.

It's a pleasure for me to welcome today our guest, Dr. Daniel Yergin who is an author and Vice-Chairman of IHS Markit. Daniel is an authority on energy, international politics, and economics and a Pulitzer Prize winner. Daniel is the author of the bestseller, *The Quest: Energy, Security, and the Remaking of the Modern World* and *The Prize: The Epic Quest for Oil Money and Power*, which was awarded the Pulitzer Prize and became a number one New York Times bestseller. This upcoming September, Daniel will be releasing his new book, *The Map: Energy, Climate, and the Clash of Nations.* I should say it's available for pre-order on Amazon.

Daniel has served on the Secretary of Energy Advisory Board under four presidents, and he's on the Board of Directors of the Council on Foreign Relations and a trustee of the Brookings Institution. Among his awards, the Prime Minister of India presented Daniel with a Lifetime Achievement Award and the U.S. Department of Energy awarded him the first James Schlesinger Medal for Energy Security.

So the format today will be a conversation which I'm fortunate to be moderating, and I will try to integrate as many questions as possible that were submitted to the Club from members in advance. The video conference will end promptly at 4:45 and I want to remind everyone that this conversation is on the record and we do have media on the line.

Conversation with Dr. Daniel Yergin

CHAIRMAN MARIE-JOSÉE KRAVIS: So, Daniel, welcome, and thank you for taking the time to be with us. I'm sure there are many demands of your time in these tumultuous energy markets. I'd say almost a carnage in oil prices. But today we had somewhat of a bounce, almost 25%, against the news of a slowing demand for inventories and, of course, also the good news surrounding Gilead and the drug remdesivir. But the American Petroleum Institute said that U.S. inventories were about 10 million barrels against an expectation of 12 million and that seemed to inspire or at least reassure markets. But I don't think the markets are anywhere close to balance.

And I wonder if you might tell us how you react to these swings and we can get into more detail and I hope we will be able to break those issues between financial factors and the actual physical supply and demand factors. So give us a general view as to how you see these swings. Is this a first for you? I mean you've lived through quite tumultuous energy markets and energy shocks and OPEC crises and wars in the Middle East, but how do you see this particular situation?

DR. DANIEL YERGIN: Well, Marie-Josée, first let me thank you and the Club for the invitation to be part of this discussion, and hello to everybody from the Economic Club and the other ones that have joined. It's always said that the oil business is a cyclical business but I think nobody ever saw a cycle like this. A few days ago I was talking to the CEO of one of the international companies and he said we had worse cases – this worst case and that worst case in our scenarios – but nothing comes close to this.

So this is, you know, in 1986 demand collapsed. Prices went down in 1998. But both times whenever there was a price collapse, demand came back. And, as you say, we have seen these wild fluctuations in the last few days, but they're wild fluctuations at very low prices. And I think that still the key issue that's there is storage which used to be this sort of boring logistical tool and now it's the prized commodity because of the, you know, this month we think demand is down 30 million barrels a day. And if you keep producing and people aren't using it, you have to put it into storage.

CHAIRMAN MARIE-JOSÉE KRAVIS: But I'm just wondering if there seemed to be some very slight elements of optimism with regard to maybe demand increasing slightly given maybe the reopening of certain economies around the world, the reopening of certain states in the U.S.? And do you have a feeling, do you have a sense that maybe this collapse of demand is reaching its peak as more countries start to ease up restrictions and lockdowns?

DR. DANIEL YERGIN: Well, we're, I mean at this point – and numbers change – we think this is the worst month for demand, down 30 million barrels a day. We're thinking over the quarter it will average out to 22, 23 million barrels a day, which does reflect some recovery. We survey every week 15,000 gasoline stations. Gasoline demand is down 46% in the U.S. Jet fuel is down 70%.

So, you know, this has never happened before. But I still think that the next few weeks will be very tumultuous because we have to first – that OPEC, non-OPEC deal just only begins on May 1 officially. Secondly, we are starting to see shutdowns in the United States where people are saying I'm not going to sell oil at a loss or I can't get it to market. And third would be, you know, start to see some demand coming back again of people using more energy.

We've seen in China that, you know, demand is coming back. So I think as we open up, demand will go up. But I think we're still in, maybe not be in this price range, but will be in a low-price range. And I think, emphasize that the storage issues, I think, are going to create a lot of volatility because we may see, you know, on the futures market, it jumps to $15, but people are selling oil in the Permian for $5 because they can't get it to market.

CHAIRMAN MARIE-JOSÉE KRAVIS: Well, let's talk about storage because of course it was just about a couple of weeks ago that we saw oil go below zero as the May contract approached expiry. We saw that the big issue – we always talk about Cushing, Oklahoma – but the big issue in storage, whether it be Cushing, Oklahoma or pipelines or tankers and so on, that you had to pay people to take your oil.

DR. DANIEL YERGIN: Yes, well, I think that for the people, the poor people who held that futures contract, they never expected, apparently a lot of them were retail Chinese investors. And simply, I mean there is storage available, but it's been contracted so somebody owns it already. And I think that was the true desperation because the WTI contract actually requires you to agree that you will take physical delivery of the oil. If you have no place to put it, you have to pay somebody to take it away, who can use it. And, you know, we're seeing in Canada, people are in some cases paying to take the oil away, and this is a complete reversion where the seller is paying money to the buyer.

CHAIRMAN MARIE-JOSÉE KRAVIS: But we talk a lot about storage and about this whole issue of the expiry of the May contract, but even before that, U.S. producers had been selling oil at single digit levels for some time and especially the heavier, less popular grades. Some of them were selling below zero before this whole issue with the futures contract and the Cushing storage.

DR. DANIEL YERGIN: Right. And I think in the last, kind of towards the end of last week, I think some of the major buyers of Permian oil have told people that they're not buying anymore because they don't have room. So it's not like one night you just run out of, or one day you run out of storage. This has been building up. We saw in the middle of March that storage was going to be the key point and it looked – just doing the numbers – it would be late April or early May, and we're there. That's why all these tankers are off the coast of Texas, off the coast of Long Beach, Los Angeles. Because people aren't using the oil, the refineries aren't using the oil.

CHAIRMAN MARIE-JOSÉE KRAVIS: But in a scenario where – you mentioned the airlines for example – in a scenario where the economy begins to reopen or even reopens more fully, we won't be opening at capacity. I was listening, for example, yesterday to the CEO of Southwest Airlines and he was explaining that the configuration of the planes will be different. For example, it could be that they have no one in the middle seats or that they seat people every second row. And so therefore you'll see all of these industries operating at less than full capacity. So that doesn't augur very well for a sharp increase in demand.

DR. DANIEL YERGIN: That's right. I don't see it as a sharp increase in demand. I mean I think as a society, we're going to have to assimilate what social distancing means. I mean it's not the topic today but it's also about the configuration of offices. What about the open plan offices? But I think for transportation, and so I think there'll be a preference, if people have a choice between flying or driving, at least for several months people will opt for driving. It also raises the question about ride-hailing services. Will people rather...but then is your alternative mass transit? So there are going to be a lot of lasting questions at least until people feel really confident and that day comes when there's a vaccine or immunity. That will affect demand.

CHAIRMAN MARIE-JOSÉE KRAVIS: So you think that will put a damper on ride hailing or ride sharing or, you know, the Ubers, Lyfts, blah, blahs of the world where people don't feel as safe in that environment?

DR. DANIEL YERGIN: Well, I think people will just be more cautious. They're hearing the messages and so forth. And, you know, it's not our expertise for today, but it's really what we're hearing from the specialists as to how long this takes and the lasting effects of social distancing. But I think one thing is that when people can start driving again, they'll be really happy to start driving again and that will show up at the gasoline stations.

CHAIRMAN MARIE-JOSÉE KRAVIS: Yes, freedom and independence. Let's look at the other side of the equation which is supply. And, of course, there have been discussions of production cuts. But it seems that those promised production cuts are rather slow and insufficient. Would you agree?

DR. DANIEL YERGIN: Well, they would have been sufficient, you know, if we were still in Phase 1. Phase 1 was when China shut down. But right at the time that the agreement among producers broke down is when we moved into Phase 2 which is North America and Europe shutting down. So those cuts don't do them by themselves.

One of the things that was part of the negotiation with the U.S., it never happened before in negotiating oil cutbacks on a global basis, was the Saudis, the Russians, the others said, well, why doesn't the U.S. order cutbacks too? And it took some understanding of the federal system, that the president doesn't have the authority to do that.

What's going to bring down, and this is part of the balancing picture, is two things are going to happen in the United States. One is production is going to go down because people are not investing, particularly shale, you have to keep investing. The recount is half of what it was, you know, a couple of months ago. And then secondly, people are shutting in production. So those will also, if you say balancing the markets, what's happening in the United States, not because it's been ordered from the top, but that's going to be part of the balancing.

So if you add that up, if the cuts are maintained, you start to see demand come back, you know, I think later in May maybe you start to see more of a balance in the market. But it'll balanced against that storage issue which is going to be very dominant for the next few weeks. And we're going to end up still with large inventories. So one thing that maybe people didn't notice in the deal that was made, the OPEC non-OPEC deal, is it's supposed to last for two years. The cuts go down but it lasts for two years because they're going to have some, the inventories are going to be so high. They'll be maybe three times as high as the inventories during that price collapse period of 2014/2015.

CHAIRMAN MARIE-JOSÉE KRAVIS: So let's talk a little bit about the Saudi - Russia alliance, if I could call it. Let's go into maybe some of the geopolitics of it because they have similar but also very different interests and also very different needs. We were talking earlier about Russia, that in a way maybe in a better position in terms of their fiscal break-even because they budgeted based on a price of, what? $42? But let's talk about just that alliance. What's your view? What is going on?

DR. DANIEL YERGIN: Well, I think maybe, I don't know if alliance or entente is the word, we talked about a strategic relationship. I mean for years and years of course they were competitors. And one of the reasons that price collapsed back six years ago, in 2014, almost six years ago, was because the Russians said we're not going to be part of any cutbacks. They didn't want to do that.

In 2016, at the level of the Crown Prince and President Putin started a dialogue to say, well, this is pretty bad, we'd better get together. And that expanded with many MOUs, being Memorandums of Understanding, being signed saying this is a larger strategic agreement or relationship, maybe not alliance, relationship. But what then happened is that the Russians and the Saudis have different points of view. The Russians really saw this as a more temporary expedient. As you pointed out, Marie-Josée, their budget is $42, is what they needed. The Saudis wanted to see this as long term. Their budget is $65. They wanted the Russians to be part of it. So that set the stage for this breakdown and it was really quite acrimonious.

It seems a long time ago now that they declared, you know, an oil war, a price war, a battle for market share. They've come together now in saying, you know, brought together by President Trump, you know, many phone calls, because they couldn't sell oil. So they're kind of, they're back together, and I think self-interest brings them together. But they do have different interests.

CHAIRMAN MARIE-JOSÉE KRAVIS: But one of the reported reasons for this price war was trying to break the back of the U.S. shale industry and hence U.S. energy independence. Would you agree with that?

DR. DANIEL YERGIN: No. I think the great dynamic disruptor of the global oil market was U.S. shale. During the time that the Saudis and the Russians made their deal in 2016 and March of 2020, U.S. production went up 60%. The U.S. became the largest producer, way ahead of Russia, way ahead of Saudi Arabia. And one of the people very close to President Putin, Igor Sechin who is the CEO of Rosneft, was very explicit. Even a couple of weeks ago he gave an interview saying, you know, why should we give up oil market share to the United States?

And by the way, the Russians saw U.S. shale as an adjunct to American foreign policy enabling the U.S. to put sanctions on things like Nord Stream 2 or other sanctions. That was Putin's point of view. Others did not have that view and they thought that they needed to maintain it. The Saudis were mute on that subject. They said that they were aiming this at the Russians and they were going to take market away from the Russians. But it was very interesting when Vladimir Putin gave a television conference, or telephone conference, he actually kind of went out of his way to kind of blame the Saudis and saying the Saudis were trying to destroy U.S. shale. But there's no question that, you know, both of them to various degrees looked with askance at the growth in U.S. shale and really the world oil market today is not OPEC or non-OPEC, it's not the Saudi-Russian alliance or entente. It's the big three. It's the United States, Russia, and Saudi Arabia who in a very preponderant way really call the shots.

CHAIRMAN MARIE-JOSÉE KRAVIS: And what about the relationship with Saudi Arabia? I mean there are people who feel that the relationship between the U.S. and Saudi Arabia has become more fragile especially after the Khashoggi incident and that Congress has become less friendly to Saudi Arabia. And then that may also play a part in the Saudi position towards oil markets and market share.

DR. DANIEL YERGIN: I think that's quite true because, Marie-Josée, there were two letters that senators wrote in March, and these are senators, Republicans, from oil-producing states, basically saying to Saudi Arabia we thought we had a relationship, a strategic relationship. They were very explicit. We're the votes that are required for military relations between, and sales between the United States and Saudi Arabia and you – in the words of one of the senators – are waging economic warfare on us.

And I think that was quite an arresting statement and communication. There were other communications along those lines in other formats as well. And I think that was one of the reasons the Saudis wanted to come to the table and indeed said that they were going to convene a meeting to resolve this and they wanted to thank the President of the United States and "our friends" in the United States, and I think that was meant for the senators who had become distinctly unfriendly. So I think it did put additional stress on the relationship between, very definitely put, and that's not over. I mean there's Saudi oil in tankers coming to the United States so this is still going to be, you know, part of the overall scene, I think.

CHAIRMAN MARIE-JOSÉE KRAVIS: Let's go back to some of the internal tensions that this elicits in Saudi Arabia. It's true that it is one of the lowest cost producers in the world, but they have been selling, in fact to Northern Europe, at prices almost $9 below the daily Brent futures Salomon price which is about $11. They're also giving very large discounts in Asia. So that has to have serious implications for their domestic policy, which was based on much higher oil prices, much higher revenue. And we saw it when the IPO on Saudi Aramco occurred that their expectations were for much higher revenue. How do you think that's playing out domestically?

DR. DANIEL YERGIN: Well, I think there are different views as to what their budget deficit, you know, some say it's going to be $68 billion; others say it's going to be $125 billion. They are borrowing money, I think, on the premise that they found that they can borrow money. So that's part of the way they're addressing it. They're drawing down reserves and so forth.

I think it does really, you know, put a lot of pressure on plans for Vision 2030 and other things, including, one of the big elements of Vision 2030 was tourism in Saudi Arabia and that means people have to get on airplanes and travel. I think they're in a better position obviously in countries like Iraq that depend upon oil for 90% of their revenues and don't have a sovereign wealth fund, or Nigeria or Angola. So I think some of the other countries are going to be, you know, civil servants will continue to be paid in Saudi Arabia. They're not being paid in Iraq. And so I think, I think there's going to be a lot of instability that results from this in other countries, particularly if it goes on for a longer period of time.

CHAIRMAN MARIE-JOSÉE KRAVIS: Now we know that historically, especially in that region, failed states have often become also havens for terrorism or at least foul play and very much political instability that has repercussions outside of those countries. What countries do you think could fall into that category? We talk about Nigeria. We talk about Angola, Iraq. Is there a risk that they become failed states?

DR. DANIEL YERGIN: Well, I think Iraq has a very difficult time and, of course, ISIS is not finished. Now we don't know how the coronavirus is affecting them and other parts of the population, but, you know, Iraq needs money to pay its military forces. So I think, I think that's a significant worry. I think Nigeria, although it's a large economy and it's, what, roughly 200 million people, its budget is overly dependent upon oil. It's 70% of its budget. They need money to fight Boko Haram and there are lot of other tensions in the country too. So, you know, I don't know who to pronounce as a "failed state." That's a very strong term. But I think, I guess we'd call Yemen a failed state in its own way. But I think what you're pointing to, that there'll be a lot of things that come out of this that will raise insecurity issues.

CHAIRMAN MARIE-JOSÉE KRAVIS: We haven't talked about Iran.

DR. DANIEL YERGIN: Well, Iran has, remember Iran is out of the oil market for the most part in a sense. They don't have to worry about their oil revenues going down because they have already gone down.

CHAIRMAN MARIE-JOSÉE KRAVIS: Right. They've had the sanctions that have prevented them from developing...

DR. DANIEL YERGIN: So they have already been suffering through this and having economic problems. But, you know, there are Iranian experts who can address it more, but it does seem that the powers that be are still in power there and are pretty much unchallenged. And it is a more diversified economy. We don't think of it this way, but Iran is the sixth or seventh largest automobile manufacturer in the world.

CHAIRMAN MARIE-JOSÉE KRAVIS: At the beginning of this crisis, there was much more focus on Iran and the impact of the coronavirus in Iran. We were getting a lot more data and information about the coronavirus. It seemed at the time mostly China, Italy and Iran. What are you hearing about the sanitary crisis and the health crisis in Iran?

DR. DANIEL YERGIN: I don't have a view on that more than others would have except that, you know, a lot of senior people there became ill. I don't know if we have any sense of whether they've bent the curve or not so I can't answer that except that it's added to their problems.

CHAIRMAN MARIE-JOSÉE KRAVIS: So a little closer to home...

DR. DANIEL YERGIN: I might add that some of the Middle East countries on the other side of the Gulf believe that it was, the virus was transmitted to them on people coming from Iran.

CHAIRMAN MARIE-JOSÉE KRAVIS: And in Iran, there were suggestions that it had come to them by China because they have closer trade links and exchanges with China. But I guess it's too early to tell. Like everything else, we're very impatient for the data, but the quality of the data are questionable at this time. I was thinking closer to home, Venezuela, also you could argue is not a big producer, but...

DR. DANIEL YERGIN: Yes, it is. I think that is a failed state. The power of oppression and control, you know, most everything else, the economy has completely collapsed. There are many refugees roughly from Venezuela as there are from Syria. You know there's medicines, everything you can't get, food is a huge problem. Venezuela, which was one of the patriarchs, one of the founders of OPEC, is kind of a negligible force in the world oil market. Before these recent shutdowns in North Dakota, it was only producing half as much oil as the state of North Dakota. But there, the powers that be backed up by the Cubans and the control of the army and so forth, it remains in control although it really almost doesn't have a functioning economy anymore.

CHAIRMAN MARIE-JOSÉE KRAVIS: And has their energy infrastructure been more or less degraded or almost devastated to a point where even if there were regime change or quick change in policy, that it would take very much time for them to ramp up their production?

DR. DANIEL YERGIN: Time and money. It's just, first of all, a lot of the most competent people have left the country from the industry. They've gone to Calgary. They've gone to ___. Secondly, just the deterioration of the equipment and the inability to get services and support. And thirdly, people are desperate. People have been stealing equipment and things that they can just sell so they can get some money to buy food. So the notion that there would be a quick recovery in Venezuela, I think, it's just not in the cards. It would take time. It would take money. And I think one of the things, Marie-Josée, because of the amount of oil that's available in the world, because of the focus on the U.S. by many companies, I think that there's less, there would be less sense among companies, oh we've got to get to Venezuela because it has a lot of oil. They'll say, well, we have a lot of oil elsewhere too.

CHAIRMAN MARIE-JOSÉE KRAVIS: Right. They don't have the same comparative advantage they once had.

DR. DANIEL YERGIN: Right. Not the sense of urgency.

CHAIRMAN MARIE-JOSÉE KRAVIS: Right. You mentioned, in passing you mentioned Canada a couple of times and then, of course, we have, the U.S. has its neighbor to the south, Mexico, both two oil producers. They're certainly suffering from this decline in prices, suffering in very different ways. How do you see either one of them reacting?

DR. DANIEL YERGIN: Canada has had the issue that it needs more access to markets. It needs pipelines. And, as you know, Marie-Josée, the province of Alberta just before this thing really turned bad with Covid, stepped in and said, well, we're going to own a significant part of Keystone pipeline and help get it built. So the problem with Canada is access to markets. Canada does supply 50%, you know, we do import oil, it supplies 50%, and this kind of discrimination against Canada continues to be very perplexing. We know why it happens but it's still perplexing. And so the Canadian industry is under a lot of pressure. We talked before. They're not selling oil or having to pay people to take it away or at very low prices. So it's an industry under pressure.

Mexico, it's the whole country. I mean people feel that the Mexican government has been slow to recognize and prepare for the Covid crisis or have the resilience. And President Lopez Obrador wants to go back to the 1970s or even the 1930s and sort of make Pemex the center of everything. He never liked the notion of opening up to bring in investment, to bring in technology, to bring in different perspectives, to bring in greater efficiency. And so he, I think, Mexico is in a decline situation and it's been very discouraging for new investment to come in since he's become president.

CHAIRMAN MARIE-JOSÉE KRAVIS: And he seems to be putting more emphasis on austerity rather than on stimulus.

DR. DANIEL YERGIN: Yes, it is interesting, a combination of austerity and, you know, kind of 1970s style nationalism, a mixture.

CHAIRMAN MARIE-JOSÉE KRAVIS: So, one of the questions that keeps coming up if you look at all these moving parts and the fact that, in fact, the U.S. outlook on the importance of oil in world markets was radically changed and shaped by the emergence of shale as you mentioned so the U.S. became a different kind of player in oil markets. With shale now a little bit more fragile, with that industry cutting back, do you think it changes the United States' strategic or geopolitical direction?

DR. DANIEL YERGIN: Well, I mean if you look at the numbers, it suggests that, you know, we were just about close to being a net exporter and in some months we were. And people wouldn't know it, between exporting light oil because it didn't fit our refineries and products, the U.S. was exporting 8 million barrels a day, a lot of oil. So this was a big business. And we just calculated that, you know, until this happened, the trade deficit had been reduced by over $300 billion by what had happened with the development of shale in the United States. And also a very big factor actually in the economy, not just for the oil states but for the industrial Midwest states. But it's not going to play that kind of role.

I think the U.S. will continue to be a major producer. We might go down to, and again you can change these numbers, but it looks to us around 10 million barrels a day, which if the other countries are at 8.5, ironically, we'd still be the number one producer. We could decline in another year from now. So I think this continues to be a big industry. The access to capital would be an important question because I think the shale industry was in the process of needing to develop a new social contract with investors and that got disrupted by that and so that needs to happen too. So the access to capital would be an important determinant for the scale at which the shale industry operates in the future.

CHAIRMAN MARIE-JOSÉE KRAVIS: Can you elaborate on that new social contract with investors, how you would formulate it or what you think is...

DR. DANIEL YERGIN: Well, I think you could put it in kind of simple terms. It was no longer growth at any cost, it was growth at what cost, and the basic question was investors wanted a return on their investment. They wanted money back. And so that meant companies, we could see over the last year or so, year and a half, we're in the process of maybe having dividends, slowing the growth at which they invested in and so forth, and planning one way or the other to get that money back to investors. By the way, raise their stock price, controlling their costs and so forth. So that was the kind of glide path that they were on, but it's obviously been disrupted by what's happened now.

CHAIRMAN MARIE-JOSÉE KRAVIS: And do you expect there's going to be consolidation in that industry?

DR. DANIEL YERGIN: I would think inevitably it will be that there will be companies that just simply, you know, dozens and dozens that will not make it, and that there will be a process of consolidation and a kind of change in the cost structure for companies.

CHAIRMAN MARIE-JOSÉE KRAVIS: And what about environmental considerations? I mean I notice that your new book talks about energy but it also talks about climate. And when we talk about shale, there's been quite a bit of environmental pushback, pushback by environmentalists. What about that part of the social contract?

DR. DANIEL YERGIN: Well, you know, I struggle to understand when people say they want to ban fracking or they want not only ban fracking but they also want to ban exports and imports of oil. What do we do with 276 million cars? What do we do with 11 million people who directly and indirectly are in this industry? What do we do with industries that depend upon it? So, you know, I sometimes wonder when they say ban fracking, do they want, is the aim they want us to import more oil from other parts of the world? To me, the sentence is never finished. And what, you know, obviously energy transition will unfold over time but meanwhile there are 276 million cars in this country.

And, by the way, I would just note that if you go into a hospital emergency room all of those PPE sets, all the masks, what are they made out of? They're made out of petrochemicals. The devices that put stents into people's hearts are made out of petrochemicals. So I think, you know, and even quite striking that, you know, there was this big hostility to plastic bags, but now, you know, there's a preference for plastic bags because cloth bags are a health problem. So I think there's a wider dimension here that just goes beyond the slogans that needs to be thought about and looked at in terms of our economy.

CHAIRMAN MARIE-JOSÉE KRAVIS: But I'm sure you heard a number of environmentalists during this shutdown or lockdown, you know, talking so much about the clear blue skies and the fact that there's, you know, pollution has dropped by significant amounts in China and everywhere we look we have purer air and so on. It's come at a very high cost both in health but certainly in economic terms, in economic health and also in terms of individuals losing their jobs and so on. But it has become this theme of this whole discussion of the lockdown and it's not going to go away.

DR. DANIEL YERGIN: Marie-Josée, I mean that is true. But I just, what do people want? Do they want to maintain the lockdown? Do they not want people to be able to drive?

CHAIRMAN MARIE-JOSÉE KRAVIS: That's a good question.

DR. DANIEL YERGIN: So I think it's a practical question. Yes, China's clearer skies. But it's also, I was very interested in the new Chinese five-year plan. They're talking about using more coal than they had previously.

CHAIRMAN MARIE-JOSÉE KRAVIS: Yes.

DR. DANIEL YERGIN: So, you know, clearly there's an energy transition to lower carbon and everybody wants clean air. It is quite striking. It's striking. But we've also – in this country unlike other countries – done, you know, if you compare this to 1970 in terms of smog, we have much, much cleaner air – obviously this is pristine clear, but, as you say, this is not a cost that people want to pay.

CHAIRMAN MARIE-JOSÉE KRAVIS: So where do you think we go from here in terms of U.S. energy policy? The president has talked about helping oil companies. He's talked about helping the shale industry. Do you think he takes that much further? Do you think there's political support for that?

DR. DANIEL YERGIN: Well, I think, you know, I think they tried to, we could have spent $3 billion and bought oil and put it in a strategic reserve, which the government probably would have doubled and gotten a 2X on it if it had done that. But they couldn't get, you know, the House didn't want to do that. So I think it's divided on this. And the answer to your question, a lot of the answer will depend on what happens in November. I think what's not kind of clearly recognized is just what a big economic sector this has become in the United States. It's very different when we're at 5 million barrels a day and going down and got up to 13 million barrels a day. We won't be there. So I think the job considerations will be an important thing, but I think, you know, a lot depends on politics. But I think the general trend is towards, you know, towards lower carbon, towards, a much-used phrase, the energy transition. A lot of the question is, is the timing around it.

CHAIRMAN MARIE-JOSÉE KRAVIS: And how long do you think the transition has to be? I mean it's not for tomorrow. That's for sure.

DR. DANIEL YERGIN: Yes, not tomorrow. I think it's, you know, I had to think about this really hard for this book, the new map, and looking at climate and just looking at the numbers, what's involved. So I think it's something that happens over time. I think carbon capture and the role of plants, of trees and so forth, has to become a bigger role in the whole thinking about how we eventuate this to make it happen. And, you know, in the U.S. the average car remains on the road for 12 years so you can't, you know, there's no magic wand to suddenly take them off the road and replace them with something else. So that's why it unfolds over time.

CHAIRMAN MARIE-JOSÉE KRAVIS: But many countries have tried incentives to modernize, you know, to get people to change their cars and to modernize the car fleets and so on. Do you think Americans would buy into something like that?

DR. DANIEL YERGIN: I think it's probably; I think it would be a more contentious issue that cars are more important. What Europe, you know, you see the European auto makers are tooling up to do a lot more EVs because the E.U. has put very tough carbon emissions – well, they put them on in 2015, but in 2020 and 2021, unless they push them out because of this crisis in employment, it means the car makers have to start shifting what the new cars are selling in order to avoid heavy fines.

I suspect that given what's happened and also the financial burden that governments are under, that some of this will get pushed out because there will be a focus on, you know, on jobs and getting businesses back. So we'll have to see what the lasting economic consequences and the midterm economic consequences of this, you know, this tragic situation that the world is living through right now is in economic terms.

CHAIRMAN MARIE-JOSÉE KRAVIS: So maybe we'll end where we started. We started about, we started talking about the tumult and the volatility and even the carnage in oil markets. Is that something we're going to see again in the months ahead do you think? Are we in for a roller coaster ride?

DR. DANIEL YERGIN: Well, I think that, you know, you began by pointing out that prices were up a little bit. It got up as high as $15 which, you know, if you'd said that two months ago, it would have sounded crazy. But I think the month of May is going to be particularly difficult. And then I think as we get into June and so forth, it will start to be more in balance.

I think that the question is, and these are the questions now where you have to have the doctors on to address it, what do we expect in September and October? Will we have renewed, you know, shutdowns? Or are we going to learn to live with them and go beyond, you know, if we do have the virus come back in the autumn? So I think a lot of these questions are uncertain.

But I think if we've learned to manage it, then I think that as we get into June, we get a recovery, but there's still going to be the big inventories that have to be worked off. So, you know, I mean we definitely have an average price this year that's higher than, by certainly almost double this current price and a higher price, somewhat higher in 2021. But I think 2022 is when you would start to see the effects come back, the fact of reduced investment and so forth and as the inventories come down. So, you know, there's never been a cycle like this one for sure. It's basically a government-induced cycle, but it is a cycle, and there will be recovery.

CHAIRMAN MARIE-JOSÉE KRAVIS: Well, you mentioned 2022. I hope we'll have you back at the Economic Club before then, but certainly we'll keep that at least as a time frame to watch. And thank you, Dan, for doing this and for taking the time because, as I said earlier, I know that you're much in demand these days. So thank you for making the time for us.

DR. DANIEL YERGIN: Thank you very much. Bye bye.

CHAIRMAN MARIE-JOSÉE KRAVIS: Bye bye. And thank you everyone for being with us and continue to be safe and vigilant and careful and social distancing, washing your hands, wearing masks. And we hope to see you on May 4^{th} when we will have Larry Summers and Glenn Hubbard talk to us again about the economy. And please stay in touch with us via our website as we continue to update our speaker's program. So thank you very much and be safe.