

## Bernstein's 38<sup>th</sup> Annual Strategic Decisions Conference

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## CAUTIONARY STATEMENTS RELEVANT TO FORWARD-LOOKING INFORMATION FOR THE PURPOSE OF "SAFE HARBOR" PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

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Terms such as "resources" may be used in this presentation to describe certain aspects of Chevron's portfolio and oil and gas properties beyond the proved reserves. For definitions of, and further information regarding, this and other terms, see the "Glossary of Energy and Financial Terms" on pages 24 through 25 of Chevron's 2021 Supplement to the Annual Report available at chevron.com.



## Chevron

## June 1, 2022 9:00 AM ET

This transcript has been edited by Chevron Corporation. It is generally consistent with the original fireside chat transcript. For a replay of the Bernstein's 38<sup>th</sup> Annual Strategic Decisions fireside chat, please listen to the webcast presentation posted on chevron.com under the headings "Investors," "Events & Presentations."

Bob Brackett:

Good morning, Bob Brackett here – Bernstein's E&P analyst along with the Global Metals and Mining analyst. Welcome to the second session of the 38<sup>th</sup> Annual Strategic Decisions Conference.

For those of you that it's the first session, I'll remind you that we do not expect a fire drill. So, if the alarms ring, take it seriously. The primary exit is straight out the back door to your right. You'll go back to the main lobby where the escalators were. If they've stopped, treat them as stairs, but descend to the bottom floor out onto Sixth Avenue and wait for instructions. If that path is blocked, you'll go directly back out through the coffee area and back to the right.

With that, I will describe once again the logistics. I promise I'll shorten this as the conference goes on. This is a fireside chat between myself and Mike Wirth. We'll start in a minute. Ultimately it is your conversation. You have QR codes, either on a piece of paper that we can circulate to you, or QR codes that will appear on the walls around you. You can open that app that's called Pigeonhole, and that'll let you both submit questions, but also vote up questions and so we can hear your voice. After Mike has said a few words, we'll adjourn to the two chairs to my left, and we'll begin the chat. I'll start it very much as a pyramid sort of conversation, big macro questions and then we'll kind of proceed lower and lower into more detailed questions. But again, it's your conversation. With that, it's my pleasure to welcome Mike Wirth, the Chair and CEO of Chevron to the podium where he'll speak for a few minutes.

Mike Wirth:

All right, Bob. Thank you, and it's good to see everybody, especially in person today.

I was just talking to Bob and I didn't realize he had a PhD in Planetary Physics. He's the first person that will interview me who has that background.

So, let me just take you quickly to the eye test and remind you that this presentation contains estimates, projections, and other forward looking statements. And if you'll please take a moment to read that in detail, I'd appreciate it.

For those of you that haven't followed Chevron closely, our strategy is straightforward — to deliver higher returns and lower carbon. Two things that this industry desperately needs to do. And the overarching goal is to sustain strong financial performance in a lower carbon future.

We're investing in advantaged assets while maintaining a very strong balance sheet and rewarding our shareholders through a growing dividend and steady buybacks of shares.

Underpinning this as a commitment to both capital and cost efficiency, which is fundamental in a commodity business. And we can grow our business with less capital today than any time during my career. With a focused portfolio and continued self-help, we expect to drive our unit costs even lower, leading to higher returns and cash flow.



On lower carbon, we intend to remain among the most carbon-efficient producers and also to grow new energy products in lower carbon forms that target the hardest-to-abate sectors of the economy. Light-duty vehicle transport, which gets a lot of attention, is the easiest part of the energy system to decarbonize. We're working on the things that are much more difficult than that.

The last few years in our industry have been volatile and unpredictable like they have been for so many others, but we've delivered strong results. What I've got up here are first quarter results and just a couple of highlights. Book returns in the mid-teens in the first quarter of this year, four times better than the same period a year ago. We raised our Permian production growth outlook to 15% this year, so the narrative you hear that the industry is not growing production is not true. We are growing production and our industry is growing production. We're maintaining our capex guidance for the year and a net debt ratio that ended the first quarter below 11%. We increased our annual buyback range to \$5 to \$10 billion. We are buying back at the top of that range right now at a \$10 billion annual rate. And we advance several of our lower carbon initiatives, including launching a joint venture with Bunge on the feedstock side of renewable fuels, and we remain on track to close our acquisition of Renewable Energy Group very shortly, probably later this month.

Higher returns, lower carbon. That is our mission. We've led the industry in doing both and we intend to continue to do so going forward.

We've also had a very clear and consistent financial framework across many decades. These priorities have not changed. They're up there in the order in which we have defined them and continue to guide our business consistent with those. Maintaining and growing the dividend – we've grown our dividend for 35 consecutive years. Funding the capital program – we're much more capital efficient than we were not too many years ago. If you go back a decade, we were spending \$40 billion a year. This year, our capital budget is \$15 billion and we're growing today. We were not growing a decade ago. Our balance sheet, I mentioned, [net debt ratio] is less than 20%. We were at 11% at the end of the first quarter, and in this price environment that continues to strengthen. And then returning surplus cash – we've repurchased shares 15 of the last 19 years. \$50 billion overall in shares we've repurchased at a cost that has just about matched the average price had we been in the market every single day through that period of time. So, we've not only repurchased shares when times are good, and the equity price reflects that.

We also have been very consistent in demonstrating that in a cyclical business, we are prepared for the downside. When we went through 2020 and oil prices went negative, we didn't panic. There was never a question as to whether our dividend would be cut. In fact, we grew our dividend during the pandemic. We've grown our dividend 20% between 2020 and today – that stands out unique amongst our peers. In a downside price scenario, the \$50 oil price, which seems hard to imagine today when it's more than twice that, we continue to have the capacity to increase the dividend and buy back shares for five years at a \$50 [Brent] price. And this is a chart that we shared at our Investor Day in March at an upside case of \$75 [Brent], which doesn't feel like upside versus today. We've got the capacity to buy back more than 20% of our outstanding shares over just five years. So we've got a very strong balance sheet, very strong cash flow, and the ability to continue to return cash to shareholders in any environment.

Our final slide here – I think we offer a very differentiated value proposition versus others in our sector. We're more efficient, we generate more cash, and we are driving toward a lower carbon system. The actions we've taken over the past few years make us a stronger company than we've ever been, and they position us to continue to generate strong returns and cash in a lower carbon future.



We laid out these slides at our Investor Day in March, and I won't go through them in the interest of time, but I remain confident in our ability to deliver, and in fact to deliver more than is reflected there on that chart.

So with that, I am finished and I'm not sure what will happen to the slides, but I'm going to sit down here.

**Bob Brackett:** 

Those slides will disappear. The QR code will reappear when I snap my fingers slowly, and we'll begin the Q&A.

And I've got to start with the upside / downside case of \$50 and \$75. I'll hypothesize that we've anchored too much on perhaps that range, but tell me, where are we in the cycle? Are we early super cycle, late cycle, clearly \$50 to \$75 is too narrow and too low a range, but where are we?

Mike Wirth:

I've worked in this business for 40 years and the way you survive and thrive is not to believe that good times will last forever. It's to be prepared to ride out the bottom of the cycle, which we've done very effectively. A lot of great companies no longer exist, storied names in our industry, that weren't prepared in order to do that. So that's why we have what you might view as a conservative upside and downside case.

We're clearly in a very strong portion of the cycle now. I think most people would recognize the drivers. The demand has come roaring back as economies have reopened post-COVID. We still have an up leg in demand, I think, as China begins to relax some of the restraints we've seen in China here in recent times, and people are beginning to use planes to travel again. And you look at what's going on with the airlines and you look up bookings right now for air travel, so demand is very strong. Supply is constrained in the world. Supply contracted during the pandemic. And then there are a host of constraints on the supply system today, which I'm sure we'll get further into. And so, we see this very strong surge in prices, we see a strong surge in refining margins — not a common thing to see both of those strengthen at the same time. And so, we're in a pretty strong upcycle right now.

It's hard to predict exactly where prices will go. Certainly, in the near term, there's a lot of upward pressure on the market. Longer term, economies struggle with sustained high energy prices. It's tough.

I don't think this persists for years, at least at the levels that we're likely to see this summer, but we are in a period of time where a lot of the underlying fundamentals on both the supply and the demand side have firmed. We're focused on the financial priorities I laid out to ride through the cycles. We don't predicate our plan on high prices. We prepare for low prices and then our shareholders benefit as we return cash when we've got excess cash during times when things are good.

Bob Brackett:

And arguably you can't do much on the demand side, but talk to the supply side. Where is the future of supply coming from? Your portfolio has shale, deepwater, long cycle OPEC+ onshore projects. What does that mix look like in five years?

Mike Wirth:

Well, for us, it looks like a growing unconventional business. We produced, it was on the slide, in the Permian basin almost 700,000 barrels a day in the first quarter of this year. Our total production is just a little bit over 3 million barrels a day. So, [the Permian is] closing in on a quarter of our production. If you go back five or seven years ago, it was barely 10% of our production. So our unconventional business is growing very strongly and it's got a lot of upside. We laid out in March an expectation that we'll hit a million barrels a day in the Permian by 2025. And later in this decade, we'll go north of a million barrels a day. So, a third of our production coming out of just that one basin.



We've got a big expansion project underway in Kazakhstan, and a project that currently produces, round numbers, 650,000 barrels of oil equivalent per day on a hundred percent basis – we're half of that project. We've got an expansion underway to take that to a million barrels a day of production. That'll come online in 2023 and 2024. We'll grow proportionally there.

We've got a string of projects underway in the deepwater Gulf of Mexico – Mad Dog 2 comes online this year, a water flood at another project next year, Anchor and Whale in 2024, and a project we just sanctioned called Ballymore in 2025, so we've got a series of deepwater Gulf of Mexico projects.

Then we've got a very strong unconventional position in Colorado, which I haven't talked about in the DJ basin. In Argentina, in the Vaca Muerta, which is continuing to grow.

We've got a number of different assets that will offer the opportunities for growth. We'll invest where it's economic and where we can drive higher returns, but we've got a very robust set of choices.

Bob Brackett: Just to pick on Ballymore for a second, you mentioned you just sanctioned it. It's a 2025,

even that's reasonably fast cycle.

Mike Wirth: It's very fast.

Bob Brackett: So talk about perhaps what's the response time to whether it's an onshore or OPEC+ or

deepwater that's measured in half decades?

Mike Wirth: Sure. Anything other than shale & tight, five years from discovery to production is very

fast. This happens to be a tieback, so we're not actually building new top side facilities in the deepwater, we're tying back to an existing floating platform. If you have to build new

top sides, you're closer to a decade in time and cycle from discovery to production.

Bob Brackett: We do have a couple questions around Tengizchevroil. Where do you see Kazakh oil output

in 2025? What percent will Tengiz and Korolev be?

Mike Wirth: Well Tengiz and Korolev will be a million barrels a day equivalent at that point. Kazakhstan's production – I should know that number and I don't have that on the top of

my head. It's going to grow from where we are today.

The big risk on this one, and this has been covered in the media recently, is Kazakhstan's the world's largest landlocked country. To get that production to market, you need to typically get it to a blue water port. Right now, there's a pipeline that runs through Kazakhstan and then through southern Russia to the Black Sea. It's Kazakh origin oil, which is very important under both U.S. and EU sanctions – that oil flows and should continue to flow. There have been some issues at the loading port that have constrained it. And longer term, anything that involves Russia carries a different level of concern today than it once did. Kazakhstan's got a long border with Russia and a long border with China, thousands of kilometers with each. It's a rough neighborhood, and they have to navigate

appropriately with their neighbors, and they know how to do that.

Bob Brackett: Since you mentioned, we did have a question on CPC, but you did mention Russia. Any

thoughts about the ability of Russia to get its barrels to market in the short run? And then

maybe how has Russia impacted long-run supply?

Mike Wirth: In the short run, we really have seen the Russian barrels largely continue to flow. They're

flowing to different customers and that's likely to continue. If these latest sanctions, which



have been described in principle but not in detail yet, come to pass, it'll get more difficult for Russian barrels to flow.

The insurance restrictions are likely to have a bigger impact than the destination restrictions in my opinion because the oil typically flows on ships that are chartered from ship owners who won't put their ship under a cargo without insurance. Most the insurers are European insurers and that could really constrain access to shipping tonnage. We're going to see over the balance of this year Russian production gradually ramp down as it gets harder to move it and tanks fill up in Russia.

Longer term, and you just had Olivier [Le Peuch] in here in the last session, one of the realities is the Russian energy industry is large and well established, but it's also reliant on Western service providers, Western technology providers. And as you've seen the Baker Hughes', the Schlumberger's, the Halliburton's withdraw, it leaves a more limited set of alternatives for the Russian companies. You've seen obviously the big majors withdraw from their investment positions in a number of projects, a lot of LNG, but also some oil production. Reinvestment technology and human resource becomes a problem. As some of these fields are shut in for a period of time, it's not as simple as turning on a light switch to bring the production back. It actually requires significant investment and infrastructure and capability.

If you look at, just as a kind of a go by, Iran or Venezuela as they have been operating under Western sanctions for long periods of time, you see that weigh on their ability to produce. They generally can still get a lot more to market than you might think because there are creative ways that people get oil to markets, but the ability to actually maintain their facilities and invest in production maintenance, let alone growth, is constrained by these kinds of things. In the medium term, we're going to have to revisit our assumptions on how much oil and gas Russia will actually be able to produce into world markets. I don't think that will turn around quickly.

Bob Brackett:

I have to follow-up. You mentioned creative ways to get oil to market. There's always this trade-off between ultimate recovery factor and near-term deliverability. Does that imply that Venezuela or Iran have inhibited their long-term recovery factors?

Mike Wirth:

All of these things can be turned around with investment. Whether or not it's economic is a different question. I do think that there are challenges to the medium and longer-term production profiles in all three countries as a result of the constraints that have been imposed on them.

Bob Brackett:

While you were speaking earlier, you mentioned that we might not have seen the highest prices yet. The question I have in front of me: how confident are you about seeing higher prices and higher margins for this summer?

Then we're going to talk about refining for a while.

Mike Wirth:

Well, I'm pretty confident. It's hard to find anything that suggests prices or margins are headed lower over the next 90 days if we want to talk about the summer season. It's pretty easy to find a lot of factors that suggest an upward press on those, whether you're talking on the demand side or on the supply side, and whether you're talking to oil or you're talking about refined products. All the factors are tending to push upward right now. The mitigating factor is going to be demand. It's really the one thing that could turn that is a reduction in demand, but the demand drivers right now tend to still be relatively strong.

Bob Brackett:

You've mentioned 90 days, and then you've also just mentioned Russia starts deciding to decline. We lose the benefit of the SPR in the fourth quarter. That picture for the rest of the year could potentially be strong as well.



Mike Wirth:

Yeah, it's a very different commodity market than we faced 12 months ago, let alone 24 months ago. This is a longer cycle industry – the ability to mobilize the resources and respond to large changes in demand or large changes in supply [takes time]. A hundred million barrels a day is a lot of production. It tends to move in very small increments. In normal times, 1%, 1.5% growth. A recession may take 1% off of demand for a short period of time. To see a large chunk of production come off or the strong surge in demand that we're seeing right now, the system's not set up for that and doesn't respond to that quickly. You tend to have a longer response time.

**Bob Brackett:** 

As an upstream guy I'm rarely jealous of refining, but I find myself almost jealous of refining. We have a question at what level of refining margins would you expect to see new capacity added to the Gulf, if ever?

Mike Wirth:

There hasn't been a refinery built in this country since the 1970s. I don't believe there will be a new petroleum refinery ever built in this country again.

Capacity is added by debottlenecking existing units, by investing in existing refineries. What we've seen over the last two years are shutdowns. We've seen refineries closed. We've seen units come down. We've seen refineries being repurposed to become biorefineries.

We live in a world where the stated policy of the U.S. government is to reduce demand for the products that refiners produce whether you look at the CAFE standards for fuel efficiency in vehicles, the Renewable Fuel Standard or the California Low Carbon Fuel Standard to substitute biofuels, EV tax subsidies, or internal combustion engine phase out policies. We're a California based company. We deal with a lot of this stuff in California. At every level of system, the policy of our government is to reduce demand. It's very hard in a business where investments have a pay-out period of a decade or more and the stated policy of the government for a long time has been to reduce demand for your products. How do you go to your Board, how do you go to your shareholders and say, we're going to spend billions of dollars on new capacity in a market where the policy is taking you in the other direction? What you got is you got high prices and you got a system that can only deliver what it's delivering.

I grew up in the downstream. I've been used to low margins for a long time. I'm on the other side of the coin from you. It's really unusual to see this kind of strength in refined product margins.

Bob Brackett:

To some degree there's spare capacity on the upstream, there's short-cycle shale on the upstream. Is there a short-cycle investment to fix cracking margins?

Mike Wirth:

They're smart chemical engineers for their whole careers have been finding ways to creep capacity in existing refineries by a percent here, a percent there. Larger increments take time. They take capital. And in the timeframe you're talking about, it's impractical.

Refineries can optimize from gasoline to jet to diesel. You can switch your yield a little bit. You can blend differently. Russia is a big supplier of diesel fuel to Europe. There's diesel leaving the U.S., going to Europe right now because the prices are better in Europe. And so U.S. refiners are exporting diesel to Europe, that tightens up the U.S. market. It moves molecules that would go into gasoline or jet fuel into the diesel pool, which tightens up the gasoline or the jet market, and so all these things connect. And right now, again, the constraints on product supply, whether it's Russia, the Chinese aren't exporting product right now, and you've had the refinery closures that I mentioned, product supply in the world is constrained at a time when product demand is growing.



Bob Brackett:

What are your thoughts on the chances of physical shortages or rationing, or even to your point, the possibility of a political response around refined product exports, crude exports?

Mike Wirth:

Well, it's gone from being on the table to categorically off the table to back on the table as I listen to representatives of the administration. Restricting exports would be, in my opinion, an unwise move, but I think it's something that you can't rule out. The administration has said they won't rule out.

I think somewhere in the world it's quite likely over the next few months you're going to start to see product shortage materialize. I don't know where. I think Europe is the obvious place where you would say it's most likely, but these markets all interconnect. If we have a bad hurricane season in the U.S., and it only takes one, if you look back to Katrina, Rita and others at a time when these markets already have seen very low inventories, even a normal storm season, but a bad storm season or a bad storm, and you could see shortages as a result of something like that as well.

Bob Brackett:

And at what sustainable, whatever that Brent price, would you revisit your capex plans on the upstream or the downstream?

Mike Wirth:

So when you say sustainable, we don't change our capital budgets based on the price of the day. We set our plans – we're a long-term business and we have a long-term view on supply, demand, technology, and markets. Implicit in there a long-term change in price would suggest a long-term change in the view of the fundamentals. And if we became convinced that there were a structural shift that was sustainable into the long-term, that's the kind of thing that would cause us to reassess.

We're in the middle of a very dynamic situation with a lot of new variables in play. It's very difficult when oil prices went negative and when they were in the teens in 2020, we didn't change our long-term view of supply and demand and say this is a forever thing. We're not at a point where what we're seeing today has convinced us to change our long-term view on supply, demand, economic growth, fuel efficiency, and the economy, etc., all of which are the factors that go into our long-term assessment of the fundamentals.

Bob Brackett:

If you need a structural shift, you've been in the industry 40 years, for much of that time, the theme of peak oil, peak oil supply, drove the capital. Not necessarily Chevron's, but lots of folks capital allocation. Let me do the project, I might miss on time, I might miss on budget, I might miss on volume, but price will bail me out because someday we're going to run out.

The world has now moved to one of peak oil demand being more probable than peak oil supply and that suddenly creates this pressure, I've got to get my return before that day, whatever that day is. So a structural shift almost has to be a view that peak oil supply is more likely than peak oil demand and that seems hard to imagine in today's world. So it sort of suggests that the capital allocation strategy is going to be with us for 5, 10, 15 years.

Mike Wirth:

That's why I said we haven't changed our capital allocation strategy. We never really bought into peak oil supply, and our view is that peak demand is really kind of a gradual plateauing of demand. Probably our view is out a little bit longer than some other views that I read, but the world's going to be using our products for many decades to come. There's seven and a half billion people on the planet today, there's going to be more than nine billion on the planet by 2040 with rising standard of living. Our products go into much more than transportation fuels, which is where most people presume they go, but they're fundamental to the quality of life in so many different ways that are very difficult to substitute.



Bob Brackett:

In terms of longer-term thoughts, you've made either JVs or acquisitions on the renewable side on the downstream. Talk to those. Those investments have been more biodiesel focused than ethanol focused, and is there something to read into that? I'll leave it there.

Mike Wirth:

Our lower carbon strategy has two big pieces.

One is to reduce the carbon intensity of our petroleum products, which we're doing. We've set targets, we've made a lot of progress, and a lot more we believe we can do there. We're a top quartile producer, so lowest carbon intensity. We're the best quartile carbon intensity on our traditional oil and gas products.

And then in the renewable space or the low carbon energy space, we're focused on renewable fuels, hydrogen, carbon capture and storage, and then offsets and some other emerging technologies. Wind and solar are not part of that. We use some wind and solar for our own operations in some parts of the world where it makes sense.

I mentioned that there are much more difficult sectors of the economy to decarbonize than light-duty vehicles. So if you talk about heavy-duty transportation, off-road transportation, marine, aviation, petrochemicals, fertilizer, steel, cement, I can go down all the different sectors of our economy that are heavily leveraged to our products. We're looking to help customers in those segments reduce their emissions.

Renewable fuels are the nearest term solution for on road transportation, in particular. And so we have gone bigger into renewable diesel, that's for heavy-duty transport. Diesel's the fuel that predominates, same thing in agriculture. And then, for industry, hydrogen and carbon capture and storage in some combination is likely the route to decarbonize power generation, steel manufacturing, cement manufacturing, etc.

Those all leverage strengths that we already have. They leverage value chains, technologies, operating capabilities, asset types that we are very familiar with. So that's why we've chosen to really focus on those categories. Renewable fuels are the nearest and most economic today, which is why you've seen us move in that, but we're laying a lot of pipe in the other sectors as well.

Bob Brackett:

Which is the most prone to disruption? So renewables you could sort of argue it's the fastest, it's somewhat capped by competition with food products, but where is the holy grail? I'm always looking for the next shale so that I can kind of learn from it.

Mike Wirth:

Yeah, so you're right. I think renewable fuels are near term, but there'll be some natural governors on how big that can be.

Carbon capture and storage is technically doable today. We're looking for ways to reduce particularly the capture costs. What our industry has done for 150 years is find molecules in the ground and move them through infrastructure to some end market. This is about taking molecules from above the ground and moving them back into a container in the ground where molecules were originally stored. So, we know how to do that. We operate the largest carbon capture and storage facility in the world right now. So that's doable. It's not very economic, so what you really need there is policy and continued technology evolution on carbon capture. So I'm not sure that's a black swan or a shale type breakthrough.

Hydrogen is the one. Green hydrogen, which is taking water molecules and breaking the H<sub>2</sub> and the O apart, is the one where if we saw a real technology breakthrough that lowered the cost and increased the availability. There's almost an infinite supply of raw material if you look at particularly the oceans for water to generate hydrogen. And hydrogen would be really essential to decarbonizing some of these most difficult parts of our economy. So



that's the area where if we saw a real technology breakthrough it could be a game changer. It's kind of like, remember cold fusion? This room's probably not old enough to remember cold fusion when that materialized I think at the University of Utah back maybe in the 1990s, it was going to change everything. Then of course, it turned out to be somebody in the lab who got a little carried away. So those are the kinds of breakthroughs we need to continue to look for. We're working on them, we're working with a lot of other people to try to come up with them.

**Bob Brackett:** 

Well, if it's hydrogen, the two big levers to pull are cheap electricity because electrolysis solves all problems. And the other is improved catalysts. And I guess that's where you are?

Mike Wirth:

We've got a lot of experience in catalysis and there's a lot of people working on cheap electricity. I'm not sure we add much value to cheap electricity, but we'll certainly be ready to take advantage of it.

**Bob Brackett:** 

We do have some questions. What will it take (\$200 crude?) for the U.S. government to ease Chevron's restrictions in Venezuela, if ever?

Mike Wirth:

Yeah. I'm not sure the oil price is the catalyst for a change in Venezuela. The administration's looking for more supply anywhere they can find it right now. Maybe some would tell you anywhere but our own country. There's kind of overtures to the Saudis and Emiratis, negotiations on the Iran deal seem to be ongoing but not yielding anything yet, some trial balloons floated about Venezuela.

These are politically complicated issues, each one of them. I think incremental oil supply is a motivator for them, but I'm not sure it's the determinate of action. The political situation, Venezuela has been challenging for a couple of decades now. We're on the ground there. We're providing input to the government. We're not lobbying for sanctions to be lifted. We just provide advice when they ask us questions on the impact of things they're thinking about. I think it's some prospect of political change or a political deal with the current administration of Venezuela that could lead to some changes there. It's much more about that than it is necessarily just the price of oil.

Bob Brackett:

You mentioned it, so I'll step in. How educated do you think policy makers are around energy policy, and what is the right path for a constructive dialogue around energy policy?

Mike Wirth:

So look, even for people that work in the energy system all the time, it's a big, complex system, and so it's not easy to understand. People who work in lots of other areas of the economy aren't as knowledgeable about energy and they tend sometimes to want to find simplistic answers to complex questions. So, I think there's room. I spend a lot of time trying to work with policy makers to help them understand how the system works.

The U.S. is somewhat unique in the world in that most countries are either big producers of energy and it matters to their economy because they export it, or they're big consumers of energy. So, if you're Russia or Saudi Arabia, you produce a lot and you sell it into world markets. If you're Germany or Japan, you've got a big industrial economy that's heavily dependent upon energy. They tend to have more well-formed and consistent approaches to energy policy because it's so central to their economies. The U.S. has been a bit spoiled by having an enormous industrial economy as a big consumer of energy, and also being an enormous producer of energy, and markets have kind of always just worked things out. And so, we've had an absence of policy or we've had policies that tend to move around more than be durable.

There's really three things that I think need to be embedded in good energy policy. One is affordable supply. We're seeing today, even in a developed country like the U.S., high energy prices hurt. The second is reliable supply. We're seeing in Germany and in Europe



more broadly today that they are so dependent upon unique sources of supply that it's very difficult for them to do what they might otherwise want to do. And so, energy security and national security are intertwined, and you have to remember that policy has to reflect that. And then the third thing is the environment. Everybody wants to see less environmental impact from energy production. So economic prosperity, energy security, environmental protection need to be balanced. I'm looking at your logo here with the three vectors. And, if you over index on just one of those, you can get a policy that creates unintended consequences. So if all you focus on is affordability, the environment is going to suffer. If all you focus on is the environment, your reliability may suffer. And so, you have to have a conversation about a balanced policy that reflects the realities on all three of those dimensions. And there are trade-offs. If you get so committed to just one of those three pillars, I think the policy becomes unsustainable in the long term. Those are the kinds of conversations that we need to have. How do you balance those three together as opposed to just focus on one?

Bob Brackett:

Around domestic supply, I see a question that's been voted up several times. For how many years can you realistically sustain 700,000 barrels of oil equivalent per day in the Permian without more M&A?

Mike Wirth:

Decades. We have billions of barrels of resource in place in the Permian. Production recovery rates right now are high single digits, so we're leaving 90% of the molecules behind. If we did that, it'd be the first time in the history of the industry that we left that much behind when we know where it is. So, a lot of work underway right now on technology to improve recovery rates.

So, I'll give you an example, and it's not to say this is predictive of the future. We've been producing in the San Joaquin Valley of California very heavy oil for more than a hundred years. Initial recovery there was in the single digits. We're up to 65% recovery today. Smart engineers, scientists, technologists find ways to solve problems, and so the problem of taking recovery in the unconventionals from 9% or 10% to 15%, that gives you a 50% increase in your recovery. People are working on those challenges right now.

We've got a large, large position, low royalty or no royalty on it at all, or most of it, because we've held it for so long and we own a lot of it in fee. We own over two million acres there or have over two million acres, some of it under lease. So, we can sustain. This is not something that's going to tip over this decade for sure. Next decade, not going to tip over. It's a long, long runway.

**Bob Brackett:** 

Today has to be 90% of the capex, 90% of the opex is going just to primary recovery of shale. You kind of mentioned secondary and tertiary someday. What fraction of research goes into those topics and what's the rollout of that?

Mike Wirth:

We've got field pilots going out this year on different technologies that have proven themselves at a lab scale, at a bench scale, and are ready to go out into field pilots. And so, there's a lot of R&D that goes into this.

And it's actually interesting. In the early days, we go back a decade, there was a lot of belief that the E&P companies were going to be the best at shale, right? Small, fast, nimble, and it turned out less acreage kind of sub-optimized the long-term sometimes for initial production numbers. It's a little bit of a tortoise and a hare thing. We've been kind of methodically aggregating and consolidating our land position, focusing on how do we deliver strong returns out of it, not flashy IP [initial production] numbers, and how do you ultimately optimize long-term recoveries and apply a lot of the technology. We're finding really interesting things using AI and correlating variables that our smartest geophysicists and petroleum engineers never would've believed were predictive of recovery. So we're



using information technologies, physical technologies, and a lot of smart people working on how do we improve this further.

Bob Brackett:

Can you imagine a time where you would transact acreage that was basically drilled up for primary, but you had a toolkit that could go and get the last 90% of the oil in place?

Mike Wirth:

I mean, in theory, I guess you could. The reality is when you find these technologies, other people follow pretty quickly too. And so, that would kind of presume a unique and kind of enduring technical tool that nobody else had discovered. History says that probably doesn't happen, but we're working on a lot of things. I'll say that.

**Bob Brackett:** 

Question. We've heard higher highs and higher lows all over this year. If U.S. demand remains flat near 20 million barrels a day, why can't \$30+ per barrel be the new normal for U.S. refining margins?

Mike Wirth:

You know, it's a good question. I actually think with some of the rationalization we've seen in the refining system, which came faster than it has in years gone by, we're going to see tighter refining markets in the U.S. going forward. Some of the capacity has been taken out in bigger chunks. I don't want to predict a number, but I think the outlook for U.S. refining margins is strengthening.

**Bob Brackett:** 

And how does Chevron approach backfilling its projects beyond the medium-term compared to peers?

Mike Wirth:

I guess implicit in that would be resource acquisition. We pick up resource by either exploring and finding it where it hasn't been found before, buying discovered resource that hasn't been developed, or buying companies. Those are the three big areas that we bring opportunities into our portfolio. We've had success in all three, most recently with the acquisition of Noble Energy. But if you go back to Unocal, Texaco, Gulf, there's a long history of M&A that we've succeeded with. We've got a very robust exploration program and over time have had big discoveries and exploration. And we're willing to go out and buy discovered resource if and when it's economic.

We've got a lot of resource right now and so we don't have to do that. I'd say right now we're focused much more on exploration simply because it's the lowest cost way to acquire resource, and our needs for resource replacement are not this decade, they're decades out. And so, the more certain the opportunity, the higher the price you pay for it. And so, we're out in the longer cycle, less certain, but ultimately much more economic part of those three options right now.

**Bob Brackett:** 

So, we've sort of hit our time. As a closing thought, can you talk about the value proposition for owning Chevron stock maybe compared to peers or compared to alternatives?

Mike Wirth:

We have never forgotten who owns our stock. It's people that depend on the dividend. We don't have growth investors. They've been in the tech sector. They've been in all these other sectors, right? We've got dividend investors. We've got value investors. We've got investors, not traders, and we will reward investors.

Our dividend has been yielding a multiple on top of the S&P yield. We're still yielding 3% on our dividend. It was higher back when the stock price was lower, but like I say, we've increased the dividend pay-out 35 years in a row. We absolutely know that people depend on that dividend. It was never at risk during the downturn.

We're going to run our business conservatively. We're going to buy back shares with the excess cash, and we're going to run the company to reward our shareholders. And so, I think we've stood tall amongst the industry who have seen a lot of change, right? And I



don't have to go through it, you understand the different companies and the things they've gone through or are going through right now. We've been very consistent in delivering to shareholders through a period of time when everybody else has had to restructure their plans, their strategies, and their proposition to investors, and you can sleep well at night with your money invested in our company.

Bob Brackett: Fantastic. Thank you for your time. Thank you for your words, Mike, and thank you to the

audience for attending.

Mike Wirth: Thank you.