



# **2018 Security Analyst Meeting Edited Transcript**

Tuesday, March 6, 2018



## 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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*This transcript has been edited by Chevron Corporation. It is generally consistent with the original 2018 Security Analyst Meeting transcript. For a replay of the 2018 Security Analyst Meeting, please listen to the webcast presentation posted on chevron.com under the headings "Investors," "Events & Presentations."*

## **Transcript**

### **Frank Mount (General Manager, Investor Relations, Chevron Corporation):**

Good morning. I'm Frank Mount, General Manager of Investor Relations for Chevron. I'd like to welcome those of you in the room and those joining us by webcast to Chevron's 2018 Security Analyst Meeting.

Before we begin, a few important reminders. First, please take a moment to locate the nearest exit. In the event of an emergency, the hotel staff will provide further instructions. And please silence all cellphones and other devices.

Today's presentation will begin with a corporate overview by our Chairman and Chief Executive Officer, Mike Wirth, followed by a review of our upstream business by our Executive Vice President of Upstream, Jay Johnson.

We'll end the morning with a Q&A session, where Mike and Jay will be joined by Pat Yarrington, Vice President and Chief Financial Officer; and Pierre Breber, Executive Vice President of Downstream and Chemicals.

Before we begin, a reminder that today's presentation contains estimates, projections and other forward-looking statements. These statements are subject to certain risks, uncertainties and other factors that may cause actual results to differ materially. Please take a few moments to review the Safe Harbor statement that is available in your booklets and on our website.

Thanks for your attention. And I'd now like to introduce our Chairman and Chief Executive Officer, Mike Wirth.

### **Mike Wirth (Chairman of the Board and Chief Executive Officer, Chevron Corporation):**

Thanks, Frank. Good morning, and welcome, everyone, including those of you listening via webcast to Chevron's 2018 Security Analyst Meeting. This is the 14th consecutive year I have attended this session, and it's great to see so many familiar faces. I look forward to catching up with those of you that I know and in getting acquainted with those of you I haven't yet had the opportunity to meet.

I'm excited about where Chevron's going, and I'm honored to represent nearly 50,000 people at our company who are committed to driving superior results, winning in any environment and creating wealth for our shareholders.

I'd like to start with operational excellence, which is the foundation of everything we do. We're proud of our performance as we lead our integrated peers with the best days away from work and oil spill rates.

On process safety, we reduced loss of containment events by 28% since 2014, keeping oil and gas in the tanks, vessels and pipelines, where it belongs.

On energy efficiency, we've reduced the energy consumed in our operations by 7% since 2014 despite growing production during the same period by 6%.

Moving to the macro environment, I'd like to share a few thoughts on the world in which we live and the conditions we expect to find in our markets. Over the next 25 years, the global population is expected to grow from 7.5 billion people to roughly 9 billion. The world needs affordable, reliable and ever-cleaner energy to enable human progress for



everyone. The chart on the upper right reflects the IEA New Policies Scenario, which by most accounts is a conservative view of future energy demand.

Oil and gas demand is projected to grow by more than 25% and still constitute more than 50% of the world's energy needs in 2040. The chart on the lower right shows the need for more supply to meet that growing demand and also to offset production declines from existing fields.

Finally, we've seen technology unlock new asset classes, improve costs and recovery from existing ones and enable efficiency in everything we do. This has led to a flattening of the supply curve, which reinforces our industry's ability to meet future demand for many years to come.

Against that backdrop, I'd like to talk about how we intend to compete and win in any environment. I'll start with 3 compelling strengths. First, we have an advantaged portfolio with key long-lived, low-decline and highly competitive upstream positions and a high-return downstream and chemicals system.

Second, we're sustainable at lower prices and lower levels of expenditure. We grew production and reserves last year, and we have a large resource base to support value growth into the future. And third, we have a strong, differentiated balance sheet.

In the center panel are 5 things we'll do to capitalize on these strengths. Beginning in the center, we intend to continue to lower our cost structure, using technology to improve efficiency, because costs always matter. We expect to grow production and expand cash margins as new high-return projects come online.

We'll be disciplined and returns driven in our capital allocation, investing in only the very best projects. We plan to high-grade our portfolio, capturing value by selling assets that are worth more to others and acquiring resources where value opportunities exist for us. And we'll get more out of the assets we have by running more reliably, debottlenecking and investing in high-return brownfield projects and optimizing across the value chain.

So what will investors get when we do all this? You get superior shareholder returns. You get cash flow growth that is stronger than our peers. And you'll get cash flow and earnings that we believe will enable a growing dividend.

I'd like to tell you a little bit more about each element of this winning formula, beginning with our portfolio. We have a highly profitable downstream and chemicals business. It provides strong returns and cash flow and complements our upstream by running equity feedstocks and providing processing and commercial expertise.

Our fuels business is focused into integrated value chains, anchored by complex refineries with efficiencies of scale and selling where our brands and market share are strong.

In petrochemicals, advantages come from low-cost feedstock, world-scale facilities and superior technologies, attributes that define our portfolio. We're a leading developer and marketer of lubricants and additives.

In all downstream segments, we intend to use technology to develop new products to meet customer needs. And we'll stay focused on the fundamentals, running reliably, lowering costs and capturing margin across the value chain to continue to drive high returns.

Now let's move to our upstream portfolio. We're diverse in asset class, geography and asset maturity. For example, we have a young LNG position in Australia, early-in-life unconventional assets in the Permian, a more developed



conventional oil and gas business in Kazakhstan and Deepwater Gulf of Mexico and a mature heavy oil asset in California with a lot of resource still remaining.

Our portfolio is sustainable and long-lived with a number of large assets with flat or low-decline production profiles. Operating costs are low. Cash margins are high and growing. Risk is decreasing, as our capital spending becomes more weighted towards smaller, shorter-cycle investments in areas with relatively less geopolitical risk. And we have opportunities to further high-grade the portfolio, cycling cash back into the most attractive opportunities.

Moving to the sustainability of our resource base. The chart on the left shows our reserves to production ratio is both sufficient and stable. It's not too high, too low or too volatile. A stable ratio is indicative of a portfolio that's resilient through the price cycle and can be developed through a ratable capital program. The chart on the right shows more than 40 years of 2P resource, deep and differentiated when compared to most of our competitors. Our shale and tight portfolio is a key contributor here.

Jay will revise our guidance on Permian acreage, resources and production in a few minutes. Spoiler alert: it's a good story, a very good story.

We can maintain and grow production, replace reserves, increase resources and reliably deliver cash flow from this position of strength. We don't have resource anxiety. We don't need to chase lower-return investments. We don't need to bid up the price in costly lease sales.

Our advantaged and sustainable portfolio is underpinned by a strong balance sheet, which is a differentiator, and we intend to keep it that way. This chart shows the relative debt ratios and credit ratings of major and independent oil and gas companies. As you can see, all independents and most majors have much higher debt loads and significantly less borrowing capacity. So, companies with weaker balance sheets or with less sustainable resource positions are forced to make debt reduction or resource acquisition a higher priority, restricting cash flow available for shareholder distributions. We're not one of those companies.

Now let's turn to our capital program. The chart on the left shows our 2018 budget represents the fourth consecutive year of lower capital and exploratory spending. This comes both from finishing projects under construction and continuing to realize further efficiency gains and cost reductions on projects in flight.

Cash C&E for this year is budgeted at less than \$13 billion, and we've narrowed our guidance range for organic capital spend to \$18 billion to \$20 billion through the end of the decade. We'll be disciplined with capital, not only absolute levels but allocation as well. This is one of the most important things we do.

The chart on the right provides a further breakdown of projected 2018 spend. The key takeaway is this: approximately 75% of our spending is expected to generate cash within 24 months. Our high-return investment opportunities in the base business and the Permian set a high bar, and challenge other opportunities, to continue to improve in order to better compete for funding.

The next slide shows the progress we've made on operating costs. As I said earlier, costs always matter. On the left, we've achieved more than a 40% reduction in upstream production cost per barrel since 2014. We expect to continue this downward trend.

On the right, company-wide operating and administrative expenses have come down more than 20%, or approximately \$6.5 billion, from 2014, leading our peers. We expect to continue to lower costs by improving work processes, negotiating better rates from contractors and vendors and becoming more efficient in all that we do.



And technology offers opportunities for even more. I think we're just beginning to understand the potential leverage of new digital technologies across the breadth of our company. We have many examples of this. One of which is our progress in the Permian, which you'll see later today at the poster sessions.

Now let's talk about cash margins. The chart on the left shows how we expect our upstream cash margin to expand even at a flat \$60 Brent price. Normalized for price, we saw upstream operating cash margin grow by nearly \$4 per barrel between 2016 and 2017, and we expect further increases through the end of the decade.

In a higher oil price environment, the picture looks even better. As the chart on the right shows, we have a higher liquids mix as a percent of our overall production and a good portion of our gas is sold on oil-indexed contracts, resulting in roughly 3/4 of our production being sold at oil-linked prices.

While we're not counting on it, we believe our oil price leverage is a real competitive advantage. Expanding margins and growing volumes is a powerful combination.

In 2017, we grew production by 5%, and as you can see here, our forecast for this year is to do it again. Growth should then continue into 2019, as we see the full year impact of Train 2 at Wheatstone, ramp ups at Big Foot, Hebron, Clair Ridge and Stampede and further increases from our shale & tight assets.

Heading into 2020 and beyond, we're well positioned to sustain this momentum. We're upping our guidance on base plus shale & tight production, which we expect to grow at 2% to 3% per year between now and 2022 at a capital spend of approximately \$9 billion to \$10 billion per year. That's a clear bridge from today to FGP/WPMP startup in 2022, which we expect to increase TCO's total capacity to around 1 million barrels per day.

Of course, the specific growth will also reflect the reality of things that are difficult to predict, uncertainties such as those noted on the slide. I want to be clear: our focus is on creating value, not simply on growing volume.

Production growth is an outcome of our investment and divestment decisions. I mentioned high-grading our asset base. We continue to review and evaluate our portfolio. You should expect us to be active in finding value-creating opportunities to both add and to monetize. As you can see from the Wood Mackenzie chart, with their labels on the axes, our portfolio is grounded in large core assets, where we can maximize value by running reliably, lowering costs and actively investing where we see good opportunities.

The chart also illustrates that we have assets deeper into their life cycle that have been positive value and cash generators in our portfolio, but at this point, may be worth more to others.

The criteria for divestments is straightforward. We'll sell assets that don't have a strategic fit or can't compete for capital, and where we can receive good value. We're providing a new guidance range of an additional \$5 billion to \$10 billion in such sales through the end of the decade.

Now I also want to address returns. The chart on the left summarizes the impact of actions we're taking to improve cash return on capital employed. The big levers are growing cash margins and production volumes, further lowering costs, selectively allocating capital by investing only in the best new projects and actively monetizing our portfolio.

As a result of these actions, all of which are in our control, we're targeting to improve cash returns about 3 percentage points by 2020. The chart on the right, drawn from several of your published forecasts, shows we lead expected growth in free cash flow, which brings us to the subject of cash generation.



Last year, at \$54 Brent, we generated sufficient cash flow to cover our dividend. This was an important step on our journey, but we intend to improve further.

Today, we're updating our cash flow sensitivity guidance from \$350 million to \$450 million per year for each dollar change in Brent. At \$60 prices, that represents \$2.7 billion more cash than last year. In 2018, we expect production and margin growth to increase cash flow by \$1 billion to \$2 billion and proceeds from asset sales to contribute \$1 billion to \$3 billion.

So, at \$60 per barrel, we expect to generate around \$14 billion of cash flow after C&E, well in excess of our current dividend, which takes me to shareholder distributions.

We've grown our dividend 7% per year over the last decade, ahead of the peer group average and the S&P 500. Every year, for 30 years, we have increased the annual dividend payout. The chart at the bottom shows we've also used excess cash to reduce shares outstanding, while a number of our peers have issued shares, diluting investor ownership.

As we move into a period of likely excess cash flow, assuming a \$60 oil price with a disciplined, short-cycle, more flexible and lower-risk capital program, we intend to increase the dividend at a very competitive rate. Which leads me to my final slide, where I'd like to reiterate our financial priorities.

These priorities are clear and they're consistent. Our #1 priority remains maintaining and growing the dividend. Our second priority remains reinvesting in the business. Our guidance range for capital spending has been narrowed. We're confident this level of spend will allow us to sustain and profitably grow our business.

Our third priority remains a strong balance sheet. We anticipate a debt ratio of around 20% through 2020, an appropriate leverage position given our short-cycle project queue, the benefit of low-cost debt financing and an appreciation that we operate in a volatile commodity business.

And our final priority remains the return of cash, surplus to the needs of the first 3 priorities, to shareholders. That said, with the plans I've outlined today, we expect to generate surplus cash. We'd like to see that develop to put us into a position to resume our repurchase program.

We review the share buyback decision regularly, and will update you as the year unfolds.

That concludes my prepared remarks. Now I'd like to turn the podium over to Jay Johnson. Jay?

**Jay Johnson (Executive Vice President, Upstream, Chevron Corporation):**

Thank you, Mike. Good morning. It's nice to see you all again. We've made a lot of progress over the last year, and I'm looking forward to sharing it with you this morning.

The photo is a picture of the Wheatstone Project, where we began production last October. We look forward to the second quarter this year when we expect to have all 5 Gorgon and Wheatstone LNG Trains generating cash flow.

I'll start with our goal, and that's to ensure our upstream business provides leading returns throughout the price cycle. To use Mike's words, "to win in any environment."

We have an advantaged portfolio, a legacy of past investment decisions that provides a competitive platform from which we can grow value. The Wood Mac chart on the left run at their price deck shows that they agree.



This morning I'm going to talk about the characteristics of our upstream portfolio, and I'll also update you on some of our key assets and discuss our future investment opportunities.

Across the asset classes and geographies, we have attractive investments that are in different stages of their life cycle. For example, our shale & tight assets are very young, allowing fast adoption of best practices as well as ratable and lower-risk investment. We expect to grow this asset class significantly in the coming years.

We have assets that are relatively early in their production lives, such as Gorgon and Wheatstone that are expected to be prolific cash generators for decades to come. And we have Deepwater assets headlined by Jack/St. Malo, Tahiti, Agbami and Big Foot that have scale and provide incremental drilling opportunities to extend production plateaus and deliver strong returns.

Finally, we continue to extract value through the application of technology from mature assets, like the San Joaquin Valley. One thing that's consistent across all of our assets is our focus on costs.

We're using all the levers available to drive down and manage costs. As shown in the chart on the right, we've worked with our suppliers and contractors to reduce the cost of goods and services. We've also reorganized to improve efficiency, and we've reduced activity levels and manpower.

We're building integrated operations centers and consolidating support equipment, such as marine vessels and aircraft. These efforts are not just improving our cost structure but are improving our operational reliability and our base business performance.

The result is we're growing production, we're doing more with less and we're working to do even better. The chart on the left reflects the progress we've made in lowering costs and becoming more efficient. Managing costs is a mindset and an important part of our culture. Lowering costs contribute to increasing margins, and you can see the light blue area on the chart shows the percentage of barrels generating greater than \$25 a barrel cash margins at a constant \$60 Brent price.

We expect an increase of more than 200,000 barrels a day, or 20%, of the highest margin production in 2018. The improvement in cash margin is driven by many things, including growing production from projects like Gorgon and Wheatstone, reduction in Tengiz transportation costs and improvements in efficiency across the upstream. But in addition to the margin expansion, our production volumes are also increasing, and we're getting good price support, significantly growing our cash generation capability.

Now it's also important to maintain a strong resource base. Last year, we booked more than 1.5 billion barrels of reserves while producing just under 1 billion barrels, resulting in a reserve replacement ratio of 155% for 1 year and 107% for 5 years. 1 billion of these barrels came from shale & tight assets.

Shifting to resources, we have a 6P resource base of 69 billion barrels. The chart on the right shows the changes in our resources over the last 10 years. Over that time, we've added more than 24 billion barrels, produced 9.6 and divested 8 billion barrels. The net result is our 10-year resource replenishment rate of 171%, unchanged from last year.

Managing our portfolio and selling a resource that's worth more to others continues to be a part of our strategy. We're in a good position, and we can be selective in acquiring new resources.





Now let's move to production. We view production growth as an outcome of our investment decisions and not a goal in itself. At the same time, a growing production profile is important to sustaining and growing cash flows.

Over the next few years, we expect to see outsized growth as our major capital projects continue to ramp up and we see growth in our base and shale & tight businesses. Our base, as shown in the graph, reflects producing assets as of the beginning of the year, excluding recent major capital projects. We expect our base, plus our shale & tight businesses, to grow at 2% to 3% per year from 2018 through 2022, averaging a spend level of around \$9 billion to \$10 billion a year. Most of our 2018 upstream spend is expected to generate cash flow within 2 years.

We have a great position in the Permian and I've got several important updates for you today. The first is we've increased our resources by 20% to more than 11 billion barrels. We've also increased our unconventional position by 200,000 acres to 1.7 million acres, primarily in the areas shown by the red circles on the map. The increase in resource reflects the quality of our portfolio, our new basis of design, continuing improvements in execution efficiency and the maturation of our development plans.

We also have 2 inherent advantages based on our legacy position. The first is zero or low royalty on more than 80% of our acreage. And we have minimal drilling commitments, allowing us to prioritize our development queue based on value.

We have a disciplined, capital-efficient development strategy, and we're learning fast and applying technology. We have scale, we're advantaged and we're creating value. The updated value wheel shows that almost half of our Permian unconventional portfolio, or 800,000 acres, is premium acreage, and it is just getting better.

The chart on the left compares our operated and non-operated unit costs over the last 3 years, which are lower by more than 40% and competitive with others in the basin. We're also competitive on well performance. The charts on the right show cumulative production over time for wells with our new basis of design.

Our wells perform at or near the top of the range when compared to competitor wells in the same area with similar completion designs, normalized for lateral length. The attributes that deliver this performance include landing our wells in the most productive intervals, minimizing interference from offset wells and utilizing a completion design tailored to each of the development areas.

We've studied the performance and results of others to characterize the benches and the areas, and we've leveraged our digital and technical capabilities to further understand the subsurface and extract more value.

Our new basis of design yields strong well results and our growth is ahead of expectations, so as a result we're upgrading our guidance. The black dotted lines on the chart show our previous guidance.

We now expect Permian unconventional production to reach around 500,000 barrels a day by the end of 2020 and 650,000 barrels a day by the end of 2022. This is based on running 20 company operated and 9 non-operated net rigs by the end of this year. We also expect to be cash flow positive in 2020 at \$55 a barrel WTI.

Realizations are a critical piece of our value equation, and our midstream infrastructure is providing yet another advantage. We're marketing each product stream separately and have optionality for takeaway capacity at competitive rates.



We're also coring up our acreage by transacting 60,000 acres in 2017 and another 22,000 acres already this year. These transactions created a significant amount of contiguous acreage, enabling an additional 900 long lateral wells. This is real value for our company and for our shareholders.

Now we also have some great shale & tight assets outside of the Permian, with around 6 billion barrels of resource, and we expect this number to grow as we continue to develop and appraise our holdings. We're sharing learnings between all of our shale & tight assets, bringing down unit costs and improving well performance. As a result, economic performance from the other shale & tight assets on this slide has improved significantly and offer competitive returns.

We have 330,000 gross acres in the Duvernay, where we recently announced our first development area, a 55,000-acre program where we expect to drill and complete around 250 wells. Last year in Loma Campana, we reduced our unit development cost by 25% compared to 2016.

We continue to improve our basis of design, which has doubled the expected ultimate recovery per well. In Appalachia, we're moving back into development mode, targeting opportunities in both the Marcellus and Utica formations from common well pads.

Realizations and economic returns are expected to further improve as pipeline infrastructure is completed. The point is each of these shale & tight plays offer competitive returns and options for future investment.

Now let's turn to Australia LNG. Our Australia LNG projects are delivering results with 4 trains running well. 2018 year-to-date Gorgon and Wheatstone production has been over 550,000 barrels a day on a 100% basis.

Wheatstone Train 2 is scheduled to start up in the second quarter of this year. With all plants operating, we expect our net production to be approximately 400,000 barrels a day.

We're also forecasting depreciation rates and operating costs to continue to decrease as we unlock additional reserves and build efficiency and reliability. We have around 50 trillion cubic feet of discovered equity resource offshore Western Australia.

Our infrastructure position provides opportunities to increase production through facility reliability, debottlenecking and ullage in third-party facilities.

Our resource position in Australia is extensive, and we expect to generate value for decades to come.

Turning to Tengiz, our base business continues to perform well, generating strong earnings and cash flow. 2017 was the third straight year of record production.

When FGP commences production in 2022, the production capacity at TCO is expected to grow to around 1 million barrels a day. The project is progressing well. Fabrication of modules is moving forward in Kazakhstan, Korea and Italy.

In Korea, we cut steel on 42 modules and anticipate shipping the first this spring. Fabrication of the preassembled pipe racks in Kazakhstan is ongoing with 51 units under production.

In Italy, all 5 gas turbine generators are in fabrication, with testing to begin next quarter. The logistics and the marine equipment, port facilities and heavy haul road are essentially complete and ready to receive the first modules this spring.



Site construction for the new gas processing and the gas injection facilities is underway, and there are 3 rigs currently drilling on multi-well pads.

Now let's turn to our Deepwater portfolio where we saw first production at Stampede in January and we successfully installed the Big Foot tension-leg platform in February.

We expect to start drilling from the platform in the next 2 to 3 months with first production in the second half of this year. We continue to invest in brownfield opportunities. We're leveraging our existing infrastructure by developing the Tahiti Upper Sands and continuing drilling at Blind Faith and Jack/St. Malo. These projects have low unit development costs, they build on existing reservoirs and infrastructure, and they're shorter cycle in nature.

In the medium-term, we're participants in the Mad Dog 2 project with first oil expected in 2021. We're also progressing pre-FEED work for Anchor and Tigris, where we're working to standardize equipment and reduce development costs.

Longer term, we announced 2 significant discoveries this year. That's Ballymore and Whale. It's early days for appraisal, but both are located adjacent to existing infrastructure and, therefore, have opportunities for early production with options for development, either as subsea tiebacks or newbuild facilities.

In the Deepwater, we're focused on maximizing our existing infrastructure and pushing the cost curve down to enable continued development of this important resource.

We're lowering our cost in the Deepwater through efficiency, technology and standardization.

In the Gulf of Mexico, we improved our drilling days per 10,000 feet by 35% relative to 2014. We also reduced completion time by more than 40% over the same period. Overall, we've cut our Gulf of Mexico unit operating costs in half since 2014, while still averaging less than 2% unplanned downtime over the last 2 years.

From a technology perspective, subsea boost pumps and long-distance power and communication capabilities are enabling longer tiebacks, allowing us to extend our reach and further leverage existing infrastructure.

Chevron is also a participant in a joint industry effort to standardize Deepwater equipment specifications with the goal of driving down costs.

Our upstream portfolio is second to none. It offers a diverse set of investments with relatively low execution risk and value upside as oil prices rise. We continue to focus on lowering our overall cost structure to improve returns and unlock additional opportunities. Our business is moving to higher margins and lower risk, with many short-cycle opportunities in our base and shale & tight businesses. And we're optimizing our portfolio for the near, medium and long-term value.

Now I'll invite Pat and Pierre to join us onstage, and I'm going to turn it back over to Mike. Thank you very much.

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**Mike Wirth:**

Thank you, Jay. And before we begin, just a few guidelines for Q&A. As I call on you, please identify yourself and your firm so people listening in on the webcast know who's asking the question. And I'd ask you to, please, limit yourself to one question and one follow-up. Phil.

**Phil Gresh (JP Morgan):**



Good morning, Mike. Thanks for the presentation. Phil Gresh from JPMorgan, by the way. I guess I just want to focus on Slide 17, financial priorities. You outlined pretty clearly the rank order here. As we look at the numbers today, you've already increased your dividend this year. You're going to stay within the capital budget range. The debt ratio is already where you're targeting, so it feels like you're pretty much at that spot where you can consider incremental return of capital to shareholders. You talked about reviewing this pretty regularly, but I guess, what is it that would concern you at this point? Is it just the oil price going back down? Or what would get you to pull the trigger on thinking about share buybacks?

**Mike Wirth:**

Yes, you're right. We did outline those priorities, and I think the first 3, you can feel pretty good about. I certainly feel very good about where we sit on those. The reality is, we saw 3-plus years of a pretty tough macro environment, and we're about 3-plus months into [an environment] that's a little bit better. We've got strong production growth coming, and we have every expectation that we are going to deliver the cash flow, as outlined today. And our history is, when we've been in that position, we have repurchased shares. Pat can correct me, but I think it's 10 out of the last 14 years that we've actually repurchased shares; \$45 billion of share buybacks when we've been in that position. And our message today is that we would intend to do that again. We do want to see the cash flow materialize, and so stay tuned. We will update you, but that's been our past, and that would be our expectation going forward. Did you have a follow-up?

**Phil Gresh:**

Yes. Follow-up is for Pat. Just, if you look at Slide 15, in the cash flow improvement for 2018, just wondering how you think about that on a go-forward basis in terms of the sliver there for operating activity improvement. If you look beyond 2018, how should we think about that cash flow improvement potential? And I'm kind of thinking about the fact that you still have some of these transitory factors that are out there as well in 2018. I think TCO is a pretty big part of that in terms of the spending there. But just in general, how do you think about cash flow improvement going forward?

**Pat Yarrington (Vice President and Chief Financial Officer, Chevron Corporation):**

So can I clarify, are you speaking specifically about headwinds? Or are you really just thinking about margin expansion beyond 2018?

**Phil Gresh:**

It's more the margin expansion, the cash flow improvement beyond 2018, which would layer in both of those ideas, the headwinds but also the underlying production growth and other.

**Pat Yarrington:**

You saw production growth continues to be evident past 2018. In fact, we showed a chart with fuzzy bars that takes you out and then we have TCO [FGP/WPMP] coming in 2022. So, we see production momentum really continuing out through the next several years. We also see margin expansion opportunities as well, not increasing at the same rate, necessarily, that we've seen, but with continued effort on cost management and unit cost decreases, then you should see margin expansion as well. In terms of the headwinds, and by headwinds, I am really thinking about them from a cash flow standpoint, of which the primary elements are deferred tax and where our equity distributions are less than our equity earnings. I think the headwinds are still going to be with us to an extent, particularly as they relate to TCO. For TCO, [the primary headwind of equity distributions less than equity earnings] it will probably be to the tune of \$2 billion or so for 2018 and likely will still be a reasonably sized differential as you move out [into the near future] until you get the new project online. That is because operating cash flow at TCO is being used to fund the FGP/WPMP investment as opposed to returning dividends to us.

**Mike Wirth:**



Doug.

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**Doug Leggate (Bank of America Merrill Lynch):**

Thanks, Mike. Doug Leggate from Bank of America. Two questions, one is a follow-up, I guess, for Pat. Just a quick one, Pat. You've given -- you've just given us a number for Tengiz. Can you give us -- can you quantify the deferred tax impact also just as an overall scale because I think there was a lot of focus on your cash flow in the fourth quarter. I think both those issues were perhaps -- and that's just my first question. But Mike, for you, you kind of slipped in your comments asset sales and acquisitions. So I wonder if I could ask you to talk about the net, how you see that playing out because, obviously, one of the other focuses is reducing costs, and it seems to me that one of the easiest ways to do that is excellent operators acquiring bad operators. We haven't seen any of that in this cycle. Where you stand on that as you take the reins of Chevron?

**Mike Wirth:**

Yes, so I guess we'll take the second first and then we'll go to the first one second. I did mention high-grading our portfolio. And what I really mean by that, Doug, is I want to see us focus our energy, our attention, our capital and our people on the assets that allow us to win today and win tomorrow. I think some of the assets that have been important to us in the past may be less a part of that picture as we go forward. And as we've seen with some of the transactions over the last couple of years, things that may not meet the capital investment criteria within our portfolio today might be attractive to others. We can get good value for those assets and then we can redeploy those proceeds into things that help us grow. Jay talked about increased acreage in the Permian and some of the transactions that we've done there. I would expect us to look for opportunities to continue to build to strength. We talked about Deepwater Gulf of Mexico and some of the good news there. And so, we would expect to both divest and acquire and exactly when and where that occurs, obviously, we'll disclose that when we get to the point where it's appropriate to. But we are in a good position where we love our portfolio today, and we can look for opportunities to strengthen it through both acquisition and divestment, and that would certainly be the intent. I just can't be any more specific about exactly what that looks like. I did give you \$5 billion to \$10 billion in sales over the next 3 years, and we'll talk to you about acquisitions as we're at that point. Pat, you want to take the question on deferred taxes, your favorite subject?

**Pat Yarrington:**

Yes. In the aggregate, we think of headwinds for 2018 being somewhere around \$2.5 billion to \$3.5 billion. As I said, the single largest component of that relates to TCO and the dividend versus earnings component there. The other \$0.5 billion to \$1 billion would be essentially on the deferred tax side. That's the best estimate that we have at this point.

**Mike Wirth:**

Neil.

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**Neil Mehta (Goldman Sachs):**

Thanks very much for the presentation. Neil Mehta from Goldman Sachs. The first question was just around the downstream business, and maybe, Pierre, you comment on this. But just your thoughts, one, on the potential for chemical cracker, an FID there, and just the health of the downstream business and then I have a follow-up.

**Pierre Breber (Executive Vice President, Downstream and Chemicals, Chevron Corporation):**

Okay, sure. Thanks, Neil, for the question. On the health of the downstream, we've got a nice downstream business. Mike talked about it. We're very competitive. We're leading in earnings per barrel and very tightly focused and



advantaged where we operate. Fourth quarter was a little weak. I think that's kind of inherent in your question. We're overweight to the West Coast. [In the fourth quarter] the West Coast was impacted, really, by unusually high utilization - 5% higher than the 5-year high for the last 6 weeks of the year. No unplanned or planned downtimes. Inventories ran up some and margins weakened, but we're seeing that turn around. Margins have come back some, inventories are still high, but they're working their way down. I feel good in terms of the demand and the supply. I'm constructive on West Coast - PADD 5, last 3 years, has been the fastest-growing PADD in the country. There's nothing structural. Cyclically, it was sort of an unusual period of time, and I expect that to not recur and I expect us to have a good year. On another chemicals investment, first of all, we're focused on the first investment we have. We have the derivatives plant up and running, started up last fall. We've got the ethane cracker, where start up is imminent, and we're set to get to full production next quarter. And that's what we're focused on. We want to ramp it up, keep it up, debottleneck, and find efficiencies. At the same time, we're looking at a second [cracker] investment. Our CPChem JV is looking at a second investment. We're constructive on the fundamentals on chemicals. We've got low-cost ethane. You've heard Jay and Mike talk about the Permian. That gives us more confidence in terms of ethane supply. The Gulf Coast is the center of the petrochemical industry, so you've got salt caverns, pipelines, all of that infrastructure to make it very effective. The industry has shown that they can build crackers, so all the ingredients are there. That said, you've heard Mike talk about how we need to be capital efficient when we consider a project. We are in pre-FEED, so we're still evaluating sites. We need to find a project that's on the left side of the cost stack that earns acceptable returns when the cycle does turn and can do really well when the cycle is good. So that's how we are thinking about it right now.

**Neil Mehta:**

Yes. That's great. The follow-up is, Mike, one of the key tenets, I think, of your leadership in transition here has been this focus on capital discipline. I thought it was good even though in the planning assumptions, you took the price up from \$50 to \$60 a barrel, not to say that's your view. But in this Analyst Day, you kept the capital in that \$18 billion to \$20 billion range. I guess the flip side of the question is, are you comfortable that Chevron isn't underinvesting in the portfolio as we think about next decade, once you have the benefit of some of these big projects that are coming on that give you the glide path over the next 5 years? Is there a risk of underinvestment on the other side of the portfolio? So finding that Pareto optimal level, if you can just talk to that.

**Mike Wirth:**

Yes, it's a good question. And your first point, I'll just reinforce, we do intend to be very disciplined in the allocation of capital. We will have more opportunities that we could fund than I expect we will choose to fund. If you look at the \$18 billion to \$20 billion range, we've brought down the top by \$2 billion from where we've been and we intend to stay within that range. If I look at this year's budget, \$9 billion to \$10 billion on shale & tight, a couple billion in downstream, \$4 billion at TCO, it's another \$2 billion then for exploration and some other projects. At Wheatstone, we're still spending some money there as we're finishing it, with Big Foot still going. We've got a number of projects. As the spend on those projects comes down, as TCO goes through its peak this year and next year, it actually opens up a fair amount of headroom for us to take on some other significant projects. In addition to that, don't forget the key point that Jay made, which is our base plus shale is going to grow 2% to 3% at \$9 billion to \$10 billion of investment. It's not that we're underinvesting at all. We're investing in things that are growing production and delivering value. I think one of the things on the shale & tight to think about is that people tend to look at a one well type curve, where you see a peak and then you see this long asymptotic tail. Well, by the time you stack up hundreds and hundreds and then thousands of those tails, you have a pretty long, flat production wedge with no capital going into it, and production coming out of it, that's already paid for itself. So it looks a lot like another one of our long, flat production profiles and at that point you can choose how much more you want to keep putting on the front end versus how much you want to pull back and really just harvest the cash. We've got plenty of headroom to invest, and we've got plenty of good opportunities to invest in. And we're maturing those [opportunities]. Jay talked about getting more competitive in the Deepwater, for instance. We've got to get [better] economics on those projects so that they compete in our portfolio versus the other uses of



capital. I appreciate your question, but we're very confident that we can sustain and profitably grow our business and still maintain capital discipline well out into the future.

Okay. Jason and then Doug, I'll come to you.

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**Jason Gammel (Jefferies):**

It's Jason Gammel of Jefferies. I just kind of want to follow up on this point because 2% to 3% CAGR out through 2022 gives you more visibility than probably most of your peers. And then you have Tengiz expansion kicking at that point. I guess really, the underlying asset, though, Permian, how do you think about how quickly you want to ramp it up? And obviously, this is a tremendous growth rate, but probably could be accelerated if you chose to. Is it getting it to cash flow positive? Is that one of the priorities? And then I guess, with the scale of the Permian being what it is and sorry, I'll just ask a 2-part question here, you're obviously showing tremendous production growth but barely scratching the surface of the overall resource. So, when you think about how to best optimize the NPV of the asset, do you still consider things like potentially selling acreage at some point? Or do you want to have a better understanding of the full value asset before you would consider something like that?

**Mike Wirth:**

Yes, let me give you a quick answer on that and then I'm going to let Jay expand on it. On the pace question, Jason, it has been and always will be about a capital efficient program. And the [development] program we're talking about this year is the same program we talked about last year, which is the same program we talked about the year before that. We have laid out a very methodical, disciplined way to ramp up activity so that we're optimizing land ahead of our rigs. We're optimizing infrastructure, we're optimizing people and crews. And as we're getting better, we are becoming more efficient and we're building a strong position that is not overinvested. We are really focused on capital efficiency and that has been the governor. It has not been a production target. Jay said production's an outcome, not a target. It has not been cash flow breakeven. These are high-return, short-cycle investments, each one of them. And we can choose to make more or fewer of them at any point in time, but it's really about building capital efficiency into that asset and we're absolutely committed to that. And that's really what governs our thinking on pace. On value, we'll look at ways to accelerate value. We've optimized a lot of land and have brought value forward - Jay talked about 900 new long laterals that have been enabled. These are nearly 2 million barrels of EUR per well, so it's almost 2 billion barrels of production on those 900 laterals that have been optimized. We continue to look at ways to bring value forward [in the Permian] and to understand it better. Jay announced some results related to our better understanding, and I think that will probably continue as we engage in more activity.

Jay, why don't you build out on both of those?

**Jay Johnson:**

I'll just add 2 things. We're looking at the whole value chain and that starts with getting the land position sorted out. If we can't drill long laterals, we're giving up a ton of value right at the beginning. So, when you talk about 20 rigs - and by the way, those 20 rigs are drilling a lot more linear feet today than they were even a few years ago. So, rigs aren't really necessarily the best proxy to use anymore, it's more like how many lateral feet are you going to drill in a given year. But we're looking at everything from getting those land positions sorted out in front of the drilling program, making sure we have good well designs, knowing the right development areas, right through the drilling and completions capabilities and then into the takeaway capability, making sure we've got all the infrastructure in place and ready to go on the backside so that the overall return is optimized. And that's really what we're focused on. When we get to 20 operated rigs and keep in mind, that's the operated side of it, we still have 9 net non-operated rigs currently running. That is a pretty big factory just to make sure that all the pieces, all the moving parts are running at peak efficiency. We have the



option, then, to decide to go bigger, but we'll look at the external environment, we'll look at the competitive environment that we're in. Can you get additional good crews or are they all used being used up? There's a point in time when you just start seeing your returns start to fall off because the area has overheated, and that's when some of these areas, in particular, can play a key role for us because they're becoming very, very competitive, and we can move money into some of the other shale & tight and just run the Permian at the level that it needs to be. In terms of bringing value forward, we've got active teams now that are dedicated to looking at how to maximize the value of that Permian position. So, there's blocks of land that we won't get to or they're not in our prime focus areas or we don't have enough continuous acreage to make it worthwhile. We're looking to exit those. We often retain a royalty though when we do exit them, so we've got that ongoing benefit. We have the option to joint venture with other companies to build contiguous acreage and then talk about who's the best operator for that given area. We have the opportunity to simply trade acreage where it makes sense, and we've done a couple of those recently. So, we've got all these different levers to pull, but we're actively managing that portfolio as opposed to just letting inventory sit there with very little activity.

**Mike Wirth:**

Okay, Doug. And then I'll come across to Paul.

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**Doug Terreson (Evercore ISI):**

Doug Terreson, Evercore ISI. Mike, today's spending guidance indicates that Chevron's spending per distributions are going to decline by more than any of your super major peers through 2020, which is important because this usually leads to higher returns and valuation. And so while this is a really positive framework for investors, the risks have historically been, one, management's ability to stay committed when the oil and gas price rises if they do and, two, to manage the transition internally, which is usually a challenge too. So my question is, what are you doing to mitigate these risks? And why are you confident that Chevron's going to be able to manage its pledge successfully over the next several years for shareholders?

**Mike Wirth:**

I'll tell you, I've grown up in businesses where returns were always the focus. You always believe that the market tomorrow was going to be tougher than the market you face today and self-help is the one thing you can control and the one thing you can focus on to get better. Growth in volume is not necessarily the objective. You can grow a lot of empty barrels that don't bring any value, so you really have to think about growth in earnings and growth in returns. And if you have that mindset, you begin to set up your definition of success along those lines. You set up the metrics by which people are evaluated and compensated along those lines, and you drive that down through the organization so that everybody understands their piece. And so, I think really the challenge is for us not to be seduced by the price cycle. Prices will be higher and prices will be lower in the future, and we can't build our business around a view on price. We need to build our business around a view on efficiency and competitiveness. How do we benchmark in every single area that we operate versus the best operators, be that downstream or upstream? And how do you win in any environment? That's what I fundamentally believe is the right way for us to run our business. It's the way we're organizing ourselves and measuring ourselves. And Jay's made some big changes in upstream in terms of strategy and how his organization is driving priorities and making choices.

Maybe, Jay, you can talk a little bit about some of the changes you've made in the upstream.

**Jay Johnson:**

A lot of the changes were really going back to where we were. Many of us in the upstream started out with a heavy cost focus and an efficiency and reliability focus. And it was difficult to maintain that when the prices went high for a long period of time, but we've really gone back to those basics. And throughout the organization, the focus is on returns and





capital efficiency, not just net present value. There is no one metric that is the perfect metric to base everything on. It's a balance of different things as we look at our business plan but then as we roll that plan out through the organization, we're asking people to be very focused on the returns, the capital efficiency and just getting to a lower cost structure. Regardless of your view of that future supply cost curve, we want to be at the bottom end of it so that our products are going to be earning the maximum margins.

**Mike Wirth:**

Okay. Right here and then I'll go back a couple of rows.

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**Paul Sankey (Wolfe Research):**

Mike, thanks. Paul Sankey. A follow-up really, if oil was to go up to \$80 a barrel on a sustained basis, how would you respond? Because it feels as if the Permian might be at sort of terminal acceleration point. And furthermore, I guess what I'm driving at is a question of whether or not this \$20 billion is a hard ceiling for CapEx or allowing for cost inflation or whether there would be some additional action you would take if we were in a higher price on a sustained basis environment.

**Mike Wirth:**

Like I said, [the \$18 billion to \$20 billion range] is our view for the next 3 years. That will be an adequate capital budget for us to drive profitable growth into our business in a lower price environment or in a higher price environment, and so that's what we really intend to stick to. If we see inflationary pressures, we're going to have to find ways to offset those. And one of the things I'm really encouraged by is the creativity that I'm seeing across our business right now in finding different ways to do things. There was a mindset previously that we needed to get a project to a certain point and then we're off to the races. What I see now is a mindset of how do I make a good project even better. And we've got a lot of competition internally to get projects ready to compete for funding. I think that's healthy in any price environment - to be driving the best projects and not just saying, "Well, it looks like \$80 is the new normal and, therefore, let's push everything up." As we get outside of that 3-year period of time, we'll continually reassess these things. It's an ongoing process, but I'm very confident that we can live within that budget and make good choices and continue to drive growth in cash flow and value.

**Paul Sankey:**

My follow-up is can you remind us, maybe Pat, the timing of - typically of your dividend announcement for an increase? And what -- how you're thinking about that in terms of - first, can you talk more about -- you said it would be competitive, the dividend increase I think, if you could just expand on that. And secondly, are you thinking about it in terms of a percentage of cash flow or is there some sort of metric, which allows you to be comfortable with what you're paying out?

**Pat Yarrington:**

So the first answer would be, we used to have a pattern of second quarter generally being the period of showing the increase. But in the last 3 years or so, we've been off track with that. We did just increase the dividend here in the first quarter. So, I don't know that we have a normal pattern at this point. Are we driven by cash flow coverage of the dividend or what are the particular metrics that we look at? I would say, first and foremost, it's a view about sustainability of the dividend. We have been exceeding what would be our normal payout as a percentage of cash from operations for the last several years versus where we are currently. But looking over the long-term, what really drives us is do we feel that this dividend rate and any sort of increase can be sustained come hell or high water.

**Mike Wirth:**



Paul?

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**Paul Cheng (Barclays):**

Thank you, Mike. Paul Cheng, Barclays. Two questions. First, I think it's for Mike or maybe for Pat. Historically, not just Chevron but all the big oils, looking at buyback as a flywheel. When you have excess cash, you do it. But given the volatility in the oil market is probably not going to get reduced, should we look at buyback as actually 2 components. One is as you increase your dividend, in theory, do you want to reduce your share count so that your absolute level of dividend is not really growing that much? Because otherwise at some point, it's not sustainable at the bottom of the cycle. And the second component of the buyback should it really be viewed as another form of acquisition, just buying the asset that you know the best? And so all your other organic investment or inorganic will compete against that, they will only go forward if they can compete on the return basis, if return is the focus. The second question is on the LNG, maybe it's for Pierre and Jay. If you're looking at it from the marketing standpoint, do you see - given that LNG spot has been quite strong, I think it surprised everyone comparing to a year ago - do you see the balances really returning? Or is that just temporary due to some one-off issue? And for Jay, how much does your development cost need to be reduced in order for LNG additional investment will be competitive in your portfolio?

**Mike Wirth:**

All right. Paul got 2 follow-ups into his first question. Pat, why don't you start on flywheel and share reduction and then we'll go to Pierre on LNG.

**Pat Yarrington:**

You're absolutely right. We do consider the share buybacks to be the flywheel. We have not historically looked at it as being a mitigator for other dividend increases to keep the absolute amount of dividend payments going out of the firm flat. It is, of course, a mitigator for that, but we fundamentally walk through the financial priorities and if there is surplus cash, that is when we determine that a share buyback program is an appropriate element. One of the benefits, I think, of a share buyback program is that it does in fact lower your future dividend requirement. In terms of buybacks, looking at them as another kind of investment, yes, that's absolutely a reasonable way to look at it. In fact, one of the criticisms that I'm sure many of you in the audience here would say about a buyback period is typically you're doing it when prices are high, your cash flow is good and, therefore, you're perhaps buying at a high price. We've always looked at that and said, the way to mitigate that is to be able to have a share repurchase program that works over a period of time so that you have the dollar averaging effect working in your favor.

**Mike Wirth:**

Pierre, LNG pricing.

**Pierre Breber:**

Sure. Paul, yes, we've been a little surprised on LNG pricing, or spot pricing. We have to remind you that we're not really exposed in a big way to spot pricing. Our volumes are largely contracted, oil-linked. But as you know, China's demand has increased significantly. They've had a very active program to move off of coal in heating, industrial applications, and that's pulled on LNG. All that said, there's still a lot of LNG coming on. We got another train coming on, there's others in Australia. There's U.S. projects still coming on. So, we still see a market that has a lot of supply coming. Demand has been strong. But all that said, we're really not that exposed to it. We're really oil-linked for our LNG revenues.

**Mike Wirth:**

And then development costs?



**Jay Johnson:**

Yes, so I think before we even start talking about development costs, our main objective now is to get Gorgon and Wheatstone reliability as high as we can get it. And then we can start looking at things like advanced process control and debottlenecking, so that we're getting the maximum throughput through the investment we've already made. When we turn to greenfield, our view is that any new greenfield has to be able to compete with delivered cost to Asia with the U.S. Gulf Coast. And we're using that as our bogey for development cost.

**Mike Wirth:**

Okay, Ryan.

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**Ryan Todd (Deutsche Bank):**

Ryan Todd of Deutsche Bank. So by all accounts if you look at the chart, you can sustain growth and base and Permian probably even well beyond 2022, given the depth of the resource you have there. So how do you think about the timing and phasing in of additional major capital projects. Is it somewhat dependent on the size of overall capital budget, so CapEx rolling off the Tengiz expansion? You mentioned earlier kind of Deepwater projects becoming competitive. How do you think about rolling those in versus just allocating and sustaining growth in the Permian and the base?

**Mike Wirth:**

It's a nice place to be because we do have choices. And Jay highlighted that not only do we find really attractive economics in the Permian, but we've shared lessons and have seen dramatic improvements in Canada, in Argentina, in the Marcellus. We've got other good unconventional options within our portfolio. Right now, we're spending a little bit more on those this year. And I think as we roll into the future, the attractiveness of those could call for some of the available capital. And as Jay discussed, we've had great discoveries in the Gulf of Mexico. So, we've got number of different options where we could put that [capital] and really sequence the work in a way where we can execute it well. I think we've learned a lot of lessons about taking on maybe too much work at one time and outstripping our capacity or the capacity of those people that we work with to execute projects really well, so that's a governor. We had a question about another cracker. We really like petrochemical fundamentals. Middle-class demand and growth around the world are driving really attractive opportunities. We talked about feedstock, scale and technology. CPChem's got all of that. And so cracker #2 could be a very attractive project but it will have to compete against other things in our portfolio. We'll take on projects as we think they fit into a profile that allows us to sustain overall cash generation, that we can execute and that has us within a moderate range of capital spending. We're not opportunity starved, we're opportunity rich, and we'll continue to high-grade those and invest in the best projects and make choices as we go along the way with a real eye on cash flow.

Jay?

**Jay Johnson:**

I'll just add one of the changes Mike alluded to earlier is we now look at all of the upstream when we do our business planning and capital allocation. We're not optimizing capital around any one business unit or operating company. We actually look at the full breadth of the upstream portfolio and we're planning many, many years out into the future. So we're looking at not only the short-term nature of some of these assets but also, we're keeping a stream of capital available for some longer-term projects to continue to renew our base, and we're able to really look at that balance. The program that Mike's outlined allows for that balance to take place so we can continue to renew the portfolio for long-term sustainability.

**Mike Wirth:**



Do you have a follow-up?

**Ryan Todd:**

Yes, I do. So in the Permian, we've certainly seen cost inflation start to creep back in over the past 6 to 12 months. So how do you think -- I mean, what are you seeing within your portfolio in cost inflation there? And the industry has had a long track record of times of whether it was oil sands or Australian LNG and different places, things got attractive, a lot of capital flooded in, costs went out of whack, what's unique about the Permian or what are you doing within your operations to try to mitigate against cost inflation in the coming years?

**Mike Wirth:**

I'll talk about cost inflation broadly, Ryan, and then I'll let Jay talk about the Permian specifically. We are not seeing cost inflation around the world. In fact, if anything, we are still finding opportunities to negotiate even better rates on certain commodities, materials, services. We're still finding globally that we can hold or even further reduce costs across all the different lines of procurement activity that we have. Permian does have activity stepping up and there are certain areas where we've seen a little bit of pressure.

Jay, why don't you build out on that?

**Jay Johnson:**

Our goal in the Permian is to remain competitive on our cost. And the reason I'd say that, if we're paying below market for goods and services, oftentimes, we'll find that we can't attract the quality of people and performance that we need, so we want to be competitive on cost. We use our supply chain organization and our global heft to really help mitigate some of the regional pressures. So many of our contracts are global in nature and the costs that are going on in the Permian don't apply. We also use indexed pricing in some of our contracts so that we remain competitive, but we have most of our contracts in place for this year. And so largely, the mitigation is going to be pretty effective in the near term. But over longer periods of time then we may see costs move up. The other thing that we're looking at is trying to make sure that we are always thinking ahead in terms of that factory I talked about earlier. We're putting contracts in place well in advance and can lock in the equipment and the services that we're going to need so that we don't have a gap in that total factory performance. The last piece is on the supply and trading organization, which is working very closely with us so that we're always getting those contracts in place for the offtake at competitive rates. It's easier to do before you need it than it is when all of a sudden you find that you're behind that curve. So for us, I think the cost pressures are going to be somewhat modest in the near term and then we're going to have to just see how the whole industry performs as we move forward.

**Mike Wirth:**

Yes, John?

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**John Herrlin (Société Générale):**

John Herrlin, SocGen. This is for Jay. For the \$9 billion to \$10 billion base, shale & tight gas budget, could you split it out? What's base?

**Jay Johnson:**

We're not going to break it out in more detail than that. Base, basically, the way we define that is it's all of our existing production today at this point in time, but it doesn't include the new major capital projects. Gorgon and Wheatstone, for example, are not yet in the base. Jack/St. Malo will be in the base. So the number changes over time as our base changes over time. What we're saying is to take what is currently producing today [outside of MCPs] plus our shale & tight



investments, over that sweep of time, we expect to see about \$9 billion to \$10 billion a year average in that group of assets and it delivers that 2% to 3% growth.

**John Herrlin:**

That's fine. My next question is on Asian oil production. It's been coming down pretty hard. You do have another project in Indonesia on the books. Is Asia as critical on the oil side in terms of production?

**Mike Wirth:**

I think for us profitable volume is critical. Are you talking about Asia within our portfolio, not broadly?

**John Herrlin:**

Yes, yes. You're down 20%.

**Mike Wirth:**

Yes. Jay, maybe you can talk a little bit about Indonesia.

**Jay Johnson:**

Yes, so we've got some projects that are on the books. A couple of those require extensions of contracts before they'd be economic for us to undertake, so there's commercial factors as well as technical. As Mike said earlier, by putting an \$18 billion to \$20 billion cap, I think we can sustain and grow like we've talked about. But it's also pretty healthy to have that cap in there and really force projects to improve their returns to compete for that capital. It's applying to individual projects. It's applying to countries that have to compete for that capital for the industry, and I think that's creating a pretty healthy environment. We may see movement as we look forward in those economics improving.

**Mike Wirth:**

Okay. I've got a hand in the next to the last row in the center section back here.

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**Brendan Warn (BMO Capital Markets):**

It's Brendan Warn from BMO Capital Markets. I guess my first question is for you Mike. Just, I obviously cover European peers, and they talk a lot about new energies, power renewables. Just, can you talk about your thinking? And I appreciate it's not so much for the 2018 Security Analyst Day for Chevron, but your mix or look at the mix going forward in terms of energy and capital allocation. And I'll have a follow-up question as well.

**Mike Wirth:**

Yes, so we all have choices that we're making and we look at those. We've been in the power business, we've been in renewables. I personally started up a joint venture with Weyerhaeuser to try to find a way to build cellulosic biofuels business. We looked at 100 different feedstocks, 50 different technologies. Some of the stuff is really hard. There are certain renewables that have become more competitive on an unsubsidized basis, things like wind and solar. We have those both in our portfolio, primarily as own-use applications. And you have to ask yourself, "do I have a distinctive competency that allows me to compete in some of these segments?" And I would say that in wind and solar, I'm not sure that we do. In biofuels manufacturing, Pierre's got projects underway in his refineries to begin feeding soy or canola or used oils from cooking to create biofuels in the refinery, so we've got some distinctive competencies there. You can always go out and buy things and perhaps add those competencies. Those have not been strategies we've chosen to pursue at this point, but we continually review it, so it's a part of the discussion. We do a lot of work through our technology ventures arm, which is a venture capital company we have that goes out and spends a lot of time with small companies with new and interesting ideas. We make some investments in those companies and learn. We'll continue to



evaluate how we're exposed to the range of these different alternatives. And over time, if the market changes - and I talked about winning in any environment - if at a Security Analyst Meeting in the future where the environment is one where that's a much more current and pressing, competitive issue, we would certainly talk about that. It's a part of normal business but our exposure right now is more on the research and early learning phase. Because frankly, that's where most of these technologies continue to be.

**Brendan Warn:**

And my follow-up question, probably more for you Jay, is just looking at the Duvernay, and I appreciate it's early days, and it's a number of wells. But can you benchmark the Duvernay for us against the Permian using similar metrics, what you see from that region? I know my Canadian peers would appreciate it.

**Jay Johnson:**

I think the best way I can characterize it, rather than benchmarking individual performance metrics, is considering the total value of return that we get. And what makes the Duvernay particularly good for us is that we're in the condensate window. The condensate commands a premium as it is a diluent for the oil sands in Canada, and we sit between the source of that diluent and the consumer, so we're actually well-positioned. When you put all that together, we've seen the same kind of improvements in the unit development costs coming down. We ought to see continued improvements in our unit operating cost as scale builds. We've largely been in an appraisal and land retention strategy up until this year, and we're now moving into the first development strategy. So, I would expect to see those unit development costs continue to come down fairly significantly as we move into full development mode.

**Mike Wirth:**

Brendan, the thing I might add is Jay's talking about unit development costs and overall economics. Each one of our unconventional plays, they benchmark all the same metrics. And so while the plays can be different in terms of depth and rock and lateral length and how mature the supply chain is in a given area, they're benchmarking all the same things. They're sharing all the same lessons and the performance vectors are all moving in the same direction. They may not be apples to apples comparisons in every case because of some of the geologic differences, but the fundamental approach to developing and getting better is very applicable across all of these areas and it's moving very rapidly across all these different basins within our system. Okay. We had a couple of questions up front here. And then Roger, I'll come to you.

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**Theepan Jothilingam (Exane BNP Paribas):**

Theepan Jothilingam from Exane BNP. I just wanted to come back to cash and a couple of questions. I think from last year's Analyst Day, you've provided more of an explicit framework for 2020. And we talked about the headwinds for 2018, but I just wanted to clarify, were there any changes in terms of the cash framework to 2020, vis-à-vis, 12 months ago, please? And then I just -- on the follow-up question, I'll put it out there as well. Mike, some of your super major peers have put out more explicit targets on cash return. And today, I think you very much said there's a return of surplus cash. Can you -- I mean, is it right to think that the priority really is with that excess cash that the large majority is going to come back through a buyback for the next 2, 3 years. I'm just trying to understand why you've left sort of more a vacuum for the market to understand what the exact cash return is on the buyback.

**Mike Wirth:**

So I'll let Pat start on the framework.

**Pat Yarrington:**



I don't think there's been a substantial change in the framework. We did acknowledge that our sensitivity per dollar of Brent has now expanded to \$450 [million] per dollar of Brent per year, and that's really a function of the fact that we have stronger margins and stronger production. I think, if you're talking about a \$60 price level this year, as opposed to say, \$50 or in prior years even lower than that, in those earlier years, we were generating taxable losses in certain jurisdictions around the globe. When you get into the \$60 range that gets alleviated to some degree. And obviously, if prices are higher than that, then it becomes even more alleviated. So that factors into what we have talked about as being deferred tax headwinds. Going forward [with a \$60 price assumption], I think our deferred tax headwinds are going to be much less substantial than they were in the more recent years, so that would be the other factor I would call your attention to.

**Mike Wirth:**

And so to comment on buybacks. Some of our peers have been more explicit, but I would also just observe that they're saying "we will do it if, if price is this, if my balance sheet gets to here, if my asset sales get to there." We could have put a whole bunch of qualifiers on [our buyback], and I could give you a number that might not mean much because it's so qualified that it gives me enough wiggle room to just say, "well, this didn't happen or that didn't happen." What I intended to do is say, "this is what we will do. We intend to do this. Our history says we will do it, and when we reach that point, we'll tell you, and we'll tell you this is exactly what we're doing." Pat talked about once we begin, we intend to see it through over a long period of time. So we're not just buying at a certain point in the share price cycle, but we'll begin a program that we can continue to prosecute diligently over an extended period of time and that certainly is our intent. So, rather than give you a construct that says "we, subject to," we're going to give you a construct that says, "When we begin, we'll tell you we're starting and this is exactly what we're doing."

Roger, and then I'll come back here.

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**Roger Read (Wells Fargo):**

Roger Read, Wells Fargo. Kind of coming back to the cost thing, probably a question mostly for you, Jay. But if you kind of break it into 3 broad categories, kind of an uncontrollable cost thinking like oil prices fell, so diesel prices fell. Controllable, so your things internally where you're just looking at true -- kind of the spending cost. And then the third part, if you think about it as kind of the digital age coming forward, if you broke it in like a pie chart, kind of where has that been in terms of the '14 to where we are today? And then as you look forward, let's say 2020 since that's the forecast, would there be any change in those 3 components? And if so, kind of what do you think the biggest driver of that would be?

**Jay Johnson:**

It's hard to split it up. We don't think about it, maybe, in those same terms. Even if the whole market's coming down, our contractors and vendors don't volunteer to give us money back. You've got to go out, and you've got to go get it. So to a certain extent, it's all controllable. I think about it more in terms of what are the costs that we're getting from our suppliers and contractors? What are our activity levels because we definitely control those, and then what's our efficiency in that spend. We've really focused on all 3 of those. But I would say, going forward, it's much more about the efficiency than it will be about first-line cost out of goods and services and contractors and suppliers. I do think the digital opportunities are untapped for the most part. There is huge opportunity to get more out of our facilities with digital, but also to get a lot lower cost structure as we really look to capture some of the capabilities. And you're going to hear some of that later on today in the poster sessions. But this is just the beginning. I think the digital transformation is going to give us some opportunities to continue to bring that cost structure down pretty significantly.

**Mike Wirth:**



And then did you have a follow-up, Roger?

**Roger Read:**

If I could, on the Gulf of Mexico, the 2 big discoveries you mentioned, either tiebacks or potentially standalone. I recognize appraisal drilling still needs to happen. But within your sort of \$18 billion to \$20 billion of CapEx, as we think about 2020, that potentially has a home already designated or is that something that has to push something else out? Just curious on how you're thinking about it.

**Mike Wirth:**

Everything has to push something else out, Roger. As we open up headroom there, we've got lots of different choices. And I said earlier, we intend to fund the best things. And they all have their attributes and there's questions about sequencing and timing. The one thing I would say, the Gulf of Mexico, we really have seen costs come down. And Jay talked about a number of the things that are enabling a different approach to development there. Rig rates are off dramatically. But not only are rig rates off, we're drilling a lot more. We get through 10,000 feet a lot faster today than we were just 3 years ago. Different approaches to facility design and standardizing topsides, standardizing other components and then the long tiebacks. Extended reach, subsurface pumping is giving us the ability to think about filling ullage and optimizing the infrastructure there in ways that we really couldn't think about or didn't think about not too long ago. So, we'll look to develop these things in the most capital efficient and economic way, and we'll look at how they fit in versus all of our other alternatives. It's nice to have things like that coming in, and we'll get them to be the best they can be and then we'll fund the best of those.

Right here in the middle. And I think this is probably about our final question.

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**Rob West (Redburn):**

Okay, well, thank you for letting me ask the final one. Rob West from Redburn. I'm going to make it 2, if I can. The first one is, on the priority between dividends and buybacks. I know that you put the progressive dividend further up the list, and I appreciate there's a balance between growing the dividend and paying a buyback. Really, this is just a slightly cheeky attempt to get you to tell us what the progressive rate of dividend growth might be. I mean, we know it's a 7% history. We know it's sort of a 3% to 4% last year. Should we assume that you'd look to continue at that sort of pace before doing a buyback? So that's the first one. And appreciate anything you could say on it and then I'll come back for the second one.

**Mike Wirth:**

Okay, so my slightly less cheeky response is we look at sustainability, and we want to be sure that as we increase [the dividend], that it works not only in the current context, but it works out into perpetuity. And so, we don't raise the dividend lightly. It is not a simple exercise. Pat and her team do extensive analysis. We have good, vigorous discussions and a dividend increase is viewed as a commitment into perpetuity. And so that's what drives our thinking, not any historic rate or anything else. We want to be very competitive, but we also want to be sustainable. So, I can't give you a formula for that.

**Rob West:**

Okay. It was a cheeky question, as I said. Well, a lot different one on the CapEx. So, you talked about \$9 billion to \$10 billion range on the base and the shale business. How set in stone is that? So, some of the E&P peers that you have, I guess we could expect that with volatile oil prices, they'll dial it up and dial it down much more. But do you see that as something you'll pretty much maintain within a reasonable oil price range?





**Mike Wirth:**

We laid it out over the next 3 years. So, there was a time when we only did [forecast] capital spending every 12 months at a time. And we've now seen the light in terms of value to you, giving you a little bit of a longer view of those things. We laid it out for 3 years and that's our intention over that period of time. We didn't break out base or shale & tight. The base is nontrivial. We've got a large base business. And Jay mentioned, as projects like Gorgon move into the base, over time, we'll need to add some more wells at Gorgon to keep the plant full. So that would be base spending because even though those are prolific wells, over time, individual wells will deplete and need to be replaced. So, we've got significant spending in there that is not shale & tight, and then we've got the shale & tight spending. And as we've said a couple of times, our plan there is the same today as it was a year ago and same as it was 2 years ago, which is to build a highly capital efficient approach to development. And we believe that budget will allow us to do that and maintain those efficiencies.

**Jay Johnson:**

But just to be clear, the base we're talking about, the \$9 billion to \$10 billion, is on today's base without all these new capital projects added into it. So as those come in, that base capital spend will have to increase over time. But we're telling you what it looks like using today's base.

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**Mike Wirth:**

That wraps up the Q&A portion of the session. Before we close down the webcast, I'd actually like to cover 2 quick closing slides. First on this slide, I want to address an important aspect of our culture and the expectation that we conduct our business responsibly. This is an expectation I hear from employees, I hear it from investors, and I hear it from other stakeholders, and it's one we take seriously. The United Nations Sustainable Development Goals are shown on the left. We're contributing to each of these goals as we enable human progress around the world.

On the right side, you see our report "Climate Change Resilience, a Framework for Decision Making," which we published last week. This is our second release and it builds on the first with more detail. In this report, we address governance, risk management, strategy, actions and metrics, and the questions we often get from investors and other stakeholders. We're committed to ongoing engagement on climate and on other issues.

And finally, I'd like to reiterate today's key headlines. First, we've issued new guidance through the end of the decade. Organic capital spend between \$18 billion and \$20 billion per year; asset sales between \$5 billion and \$10 billion; upstream cash margins grow between \$1 and \$2 per barrel and our sensitivity to oil price increases to \$450 million of annual cash per dollar of Brent price.

Second, we're committed to competitively growing our dividend, and we expect to generate surplus cash and be in a position to resume our repurchase program.

Third, we've increased our shale & tight resource base to 17.5 billion barrels. We've increased our Permian unconventional acreage to 1.7 million acres and the production outlook for year-end 2022 to 650,000 barrels per day. And finally, we expect a 2% to 3% production growth rate in our base plus shale & tight portfolio and \$9 billion to \$10 billion in annual capital spending.

I believe all of this supports Chevron's compelling investment and value proposition. As we deliver, I'm confident many of you will come to that same conclusion.



I appreciate your time today and your interest in Chevron. That concludes our live webcast, and we'll now head to a break here in the room. Thank you.