CATERPILLAR

# Caterpillar (CAT)
# Bernstein 2021 Strategic Decisions Conference
# June 2, 2021

Jennifer Driscoll:

Good morning and good afternoon. Thanks for your interest in Caterpillar and your patience as I got that un-muted. I'm Jennifer Driscoll and I welcome you and I have a couple of housekeeping items. We may make forward looking statements today that are subject to risks and uncertainties. For a full list of the risks and uncertainties that could cause our actual results to vary materially from any forward looking statements that we make, please refer to our most recent SEC filings, our 10-K for 2020, and our 10-Q for the first quarter, which we filed on May 5th. We also may refer to some non-GAAP numbers. For our reconciliation of those non-GAAP numbers to the closest GAAP number, please refer to the appendix and our slides today. We'll be posting those on the site later today and a transcript as soon as it's available. And with that, now let me turn it over to Jim, our Chairman and CEO.

Jim Umpleby:

Well, thank you, Jennifer. And thanks to Chad for hosting Caterpillar today. It's great to be here. I'll just try to spend a few minutes here setting the stage, talking about very briefly our strategy, our financial targets, and very briefly discuss our sustainability journey and talk a bit about opportunities we see in the mining sector before taking questions. Just if you look here at slide three, we introduced a new strategy in 2017 that we remain committed to. That strategy has three main pillars, services, expanded offerings, and operational excellence. Just to give you a sense of what those three pillars are all about, operational excellence is safety, quality, lean, and a competitive and flexible cost structure. So we're continually looking for ways to improve our operations, to reduce our structural costs, to become more lean. And it has really become a way of life.

Jim Umpleby:

Expanded offerings is all about new products, but not just in the traditional sense. Caterpillar has always been known for having the most productive and the highest quality equipment, but sometimes we didn't have the right products to serve what we call life cycle value customers, we were very focused on the premium customers. And what that necessitated is for us and our dealers to sometimes discount our premium products to capture those life cycle value customers. Now we have a life cycle value product line, which is still very high quality but might not be quite as productive. And it allows us to capture those customers without discounting our premium products. And then finally services, which is a key element of our strategy, which I'll talk a bit more about. But basically, services is everything we do to help make the customer successful after the sale. Our aim is to drive long-term profitable growth, and the measure that we use for our leaders is what we call OPACC, which is operating profit after capital charge. It really allows us to be laser-focused on ensuring that we get a return on every investment that we make. All right, let's move on here to the next slide. Moving to slide four. So we put out some Investor Day targets a few years ago, and I just wanted to spend a few minutes talking about that. So what we told investors is that we can't predict the exact cycle, but what we can do is we can control our own performance. And what we told investors we would do is to perform better than we did in the historical past. And at that time, we defined that historical past between 2010 and 2016. And what we said is that we would achieve 300 to 600 basis points higher operating margin than we did during that period based on different levels of sales.

Jim Umpleby:

Very pleased that in 2018 and 2019 we in fact met those Investor Day targets. And even last year when the pandemic hit and our top line dropped 22%, and we told investors that we were making a conscious decision to continue to invest in our future, to invest in new products, to invest in services. We still made that operating margin target last year.

Jim Umpleby:

Moving on to the next slide, we also talked about better cash flows. We told investors that we expected to achieve between $1 to $2 billion of incremental free cashflow based on what we had done during that period between 2010 and 2016 at various levels of sales. And I think one of the things that investors are starting to appreciate is our ability to generate relatively stable cash flows even though we do serve a number of cyclical industries. You can see that between 2017 and 2019 we achieved between $5 and $6 billion of free cashflow. And even last year during the pandemic, when our volume dropped, top line dropped 22%, we achieved more than $3 billion of free cashflow. So free cashflow is certainly something that we're very focused on.

Jim Umpleby:

One of the things we've also told investors is that we intend to return essentially all free cash flow to shareholders, through a combination of dividends and share repurchases through the cycle. We are a Dividend Aristocrat, 27 years of higher dividends. And it's something that certainly, again, we intend to keep going. Next slide, please.

Jim Umpleby:

A few words about Services. Again, Services are everything that we do to serve a customer after the initial sale. We set out an aspirational, bold target to double Services revenues between 2016 and 2026 from $14 to $28 billion, and we're doing a number of things to make that happen. We're investing in our digital capabilities, we brought in a new head of digital from outside of the company, put in a whole new team, investing in AI [artificial intelligence], we've got 1 million connected assets, we are double the number of products we have, what we call CVAs, customer value agreements, we've launched a new reman [remanufacturing] organization. We're taking a whole variety of actions to make this happen. We did say when we put out the target it wouldn't be linear, it wouldn't be a straight line. It would be relatively back-end loaded because we need to make investments to make this happen. But again, so far, so good. Next slide please.

Jim Umpleby:

Just a few words about sustainability. We did introduce a new sustainability report within the last month and we established new goals for 2030. And we had previously put out a sustainability report a number of years ago that set goals for 2020. And so the new report let people know how we did against those goals and put out new ones. So we have some aggressive goals for our own operations and we are also very committed to helping our customers achieve their sustainability objectives as well. We're doing a whole variety of things there. And let's go on to the next slide, please. And these are just a few of those examples. On the left there, you've got a trolley assist large mining trucks that allows a customer to reduce their carbon footprint by using available electricity at a mine site. And we received an award from the EPA for what we call our dynamic gas blending engine, which allows customers, this is primarily used in oil and gas applications to produce oil and gas, but just substitute up to 85% diesel fuel with natural gas.

Jim Umpleby:

And we've actually now demonstrated the ability to introduce hydrogen to displace some of that natural gas to even further reduce our customers' carbon footprint, so customers are very excited about that. And we're doing a number of things in hydrogen. We have the ability to burn hydrogen blends, both in our reciprocating engines and in our gas turbines. And we recently received a research award from the DOE to help advance that even further. Next slide, please.

Jim Umpleby:

Just a few words about mining. One of the things that we are excited about with the energy transition is the opportunity that that provides for Caterpillar and our dealers in mining. I think everyone on the call is aware that that commodity prices are very strong based on the amount of time it'll take for the energy transition that should drive strong demand for a number of commodities for quite some time. And Caterpillar has a leading product and services portfolio in mining. We have what we're absolutely convinced is the best autonomous solution.

Jim Umpleby:

We have hundreds of trucks in autonomous operations, various mine sites around the world, and it's not just about the trucks. We're actually putting autonomy into our other products at the mine site as well, and those are operating. So again, we were very excited about the opportunities in mining moving forward. And the nice thing about this is it isn't being driven - last time, there was a cycle in mining, an upward cycle that was driven primarily by China. And this time around, again, if one thinks about the energy transition and what's going to be required from a commodity perspective to make that happen, we're quite excited about what could be a very long, healthy cycle here in mining. All right, next slide. And so with that, I think I'll turn it over to Chad for the Q and A.

Chad Dillard:

Great. Thanks, Jim. Definitely appreciate it. And for those of you listening in, you can participate in Q and A, there's a link at the bottom of your screen, a Pigeonhole link. You can feel free to enter in some questions and I'll be able to read them out loud to Jim.

Chad Dillard:

So Jim, the way that we're going to run this conversation is I'll start out with a couple of high-level questions, dig into a few more general questions and then expand out to sort of the larger themes that you've touched on during your presentation. But first of all, so it's been a little bit more than four years since you transitioned from running E&T to becoming CEO of Caterpillar. Of the best practices that you've brought over and expanded into the rest of the organization, can you tell me just what's been successful, what hasn't, and what do you think takes a little bit more time?

Jim Umpleby:

Well, thanks, Chad. And we're looking for best practices, not just from E&T, but from across the organization, things that have been employed for a number of years. We talked about the new strategy already this morning. And one of the things that we've been very focused on in Energy and Transportation is that Services strategy. And we have well-established Services activities both in Solar and in Rail, and we're working hard to increase those services for the balance of the company. Of course, as I mentioned, digital is a big enabler in that and something that we've been investing in, and we are doing a number of things. Everything from, we have what's called a PIC program, which is a Parts

Inventory Collaboration which allows us to see the parts in our dealer network and then to use AI to make recommendations to them for what parts they should have on hand.

Jim Umpleby:

So when you couple the fact that we have over 1 million connected machines and engines, 1 million connected assets, with that program it really allows us to ensure that our dealers are in good shape to support our customers. We talked about the O&E model. That's one of the things that we did in E&T and in Solar as well as ensuring that we have a very good understanding of where we're creating shareholder value and where we're not. Oftentimes with a large company, and the way it worked in the past at Cat, we may have a division with 12 or 14 products in it. And as long as the division was performing acceptably, that was good enough. Now what we're doing is really peeling the layers off the onion and understanding by product, by market, by application, which products are creating shareholder value and which are not. And we have a laser focus on improving those that aren't, and importantly, also investing more, biasing our resources in terms of capital expense, management attention, and those areas that represent the best opportunities for future profitable growth. And that's why, again, we're really pushing Services so hard.

Chad Dillard:

Okay. And just a big picture question. So machinery companies create value for customers by increasing their productivity. And as the source of productivity shifts from mechanical to digital, how are you positioning Cat to capture a bigger share of the values that you hold? And I'd love it if you could spend some time talking about this on the original equipment side.

Jim Umpleby:

You bet. And again, digital as I mentioned a couple of times this morning, digital is a very important part of the strategy. We concluded we didn't have the right talent within Caterpillar to really move us as quickly as we needed to move, so we hired someone from the outside. He brought in a whole new team. Again, we've invested to connect 1 million assets. We’re using digital as an enabler to that Services growth strategy. We're doing things like providing insights to customers and dealers that we had never done before. Again, given the fact that we have the connected asset, given the fact that we have AI that we didn't have in the past. Let me give you just a few examples of some things we're doing. We have what are called PSEs, or prioritized service events, where we actually use AI to give a dealer a lead on providing services or parts to a customer, based on that connectivity, based on our model of when it's going to be required. And it's all about, everything has to be rooted in customer success, so it's all about making the customer more successful, doing things like avoiding unplanned downtime, increasing the availability, increasing utilization, which in our industry isn't that great. So, if in fact, we can increase utilization of the equipment, that's certainly has a big impact on our customers, continuing to look at artificial intelligence, machine learning, to drive predictive maintenance. We're doing a whole variety of things there, but again, everything is always rooted in customer success. If we find a way to make our customers more successful, that'll be a good thing for Caterpillar and our dealers.

Chad Dillard:

Great. So what's the case for Caterpillar generating higher pricing power? And I'm talking about across the cycle in this cycle. Is there anything from an operational or a product standpoint you can point to you that gives you confidence you can do that?

Jim Umpleby:

Well, a whole variety of factors are used when we determine pricing. So obviously, we always have to be competitive, but I've talked about some of the things we're doing around autonomy, right, and having the best autonomous solution, about having the most productive piece of equipment, about serving our customers. And that does provide us a competitive advantage and can help in pricing as well. But we always need to be competitive. One of the things that we're always doing, as I mentioned in my prepared remarks, is we've challenged all of our leaders to continuously find ways to reduce our structural costs. We've done a number of things, over the last couple of years, everything from outsourcing some finance activities that were previously done internally and in a relatively high-cost way and outsourcing those using a partner, and those are now being done in India.

Jim Umpleby:

We put in a new HR system that's allowed us to reduce HR headcount. We've done some things on the purchasing side, but we're starting to do more engineering in low cost countries. So we're very focused on continuously improving our structural costs. Now, having said that, getting back to pricing, we did have a price increase here that we've talked about that will impact prices in the second half of the year. And also our price can be impacted by geographic mix as well as things move back and forth between different areas. But again, one of the things that we also often think about is the fact that even if our, with commodity prices go up, even if our input costs go up a bit, given the fact that commodities are strong and the customers use our products to produce those commodities, generally higher commodity prices are a net positive for Caterpillar because it increases volume, it gives us more operating leverage, provides the services revenues, and everything that comes along with that.

Chad Dillard:

Okay. So actually, let's shift to some of the near term questions. Let's talk about the supply chain tightness, that CAT, as well as the rest of the industry has really been facing. Have you started to see any change in component availability in the last two months? Is it better than expected? Worse than expected? The same?

Jim Umpleby:

Yeah. So it's yes. So it depends on the actual component that we're looking for. One of the things that, that we did talk about in the earnings call is that we made a conscious decision last year, and actually, at the time, we shared this with our investors, that in during 2020 that we held a bit of extra inventory within Caterpillar to do a couple of things. One, is to try to guard against pandemic-induced supply disruptions of government shutting down a supplier in a foreign country, those kinds of things, but also to prepare us for a potential, and of course, in 2020, no one knew what 2021 would look like, a potential increase in volume and sales in 2021. And that decision has served us very well.

Jim Umpleby:

Now, having said that demand is increasing quite strongly and that's the good news. And so we are dealing with many of the issues that other companies are dealing with, whether it's semi-conductors or other components, and we're working those issues very hard, and we're working hard to try to minimize the impact on meeting, improving customer demand, but it's clearly a challenge and we're working our way through them. I think there's lots of well-known issues out there in the industry, semiconductors being one of them, that we're just working through every day and we're working hard to try to minimize the impact on our customers.

Chad Dillard:

So the next question is on price/cost. Assuming commodities stay where they are today, I know that's a very big assumption, when do you think your price increases will catch up to the cost inflation you're seeing? And then secondly, how much more latitude do you have to raise prices further in the interim this year?

Jim Umpleby:

Yeah. As I mentioned earlier, a lot of things go into our price decisions, right? So we're thinking about our competitive situation. A lot of that goes into it. We typically have, like our steel contracts have to ... We have a lag of three to six months, which is a consideration in pricing. I've talked about the fact that commodity price increases are generally a net positive because of the volume in our mining business. But we expect price and cost to be about a wash for the year.

Chad Dillard:

Gotcha. Okay. So just let's move on to some of the longer sort of themes. You're particularly, you're talking about the [production] of life cycle value products. Can you talk about when you actually started that journey and how much further do you have to go out today?

Jim Umpleby:

Okay. It's not my dogs. Everybody knows.

Chad Dillard:

Sorry about that.

Jim Umpleby:

My wife has my dog trapped upstairs, so he can't make ... That's okay. But it's happened to me plenty of times. And Chad, with the dog, I'm going to ask you to ask your question again. I'm sorry. Would you repeat that for me?

Chad Dillard:

Yeah. Sorry about that. My dogs-

Jim Umpleby:

[crosstalk] No, no worries.

Chad Dillard:

Yeah, just a question on price/costs. So just assuming commodities stay where they are today, when you think the ... Actually, sorry. That's the prior question. This is actually about the life cycle value in terms of the products. So when did you start this journey? And can you talk about how far along you are on today?

Jim Umpleby:

Sure. Well, we started the journey about, I guess, about three years, three or so years ago. And again, if you stop and think about it, maybe the way, the best way to explain this to people is you think about a customer, even the same, one customer and location might want both premium products and lifecycle value products. For the machine that operates at the job-face that operates 24 hours a day, seven days a week, customers are willing to pay more, to buy a product that moves more dirt during a 24 hour period. In the back of the job site, they may have a wheel loader that operates three hours a day. There, they don't need the most productive piece of equipment. So they're willing to have one that maybe has the less bells and whistles and moves less than dirt. So that's an example of that.

Jim Umpleby:

So we've been ... To answer your question, we've been on it for about three, three years or so. We're expanding those products. We recently introduced what we call a new GX product line in China, which improved our competitiveness there, better fuel efficiency, better productivity, and a lower price point. So it's something that we were continuing to do across the board, and it it's serving us very well. That GX product line in China, I mean, it was 15% lower fuel consumption, 25% lower maintenance costs than our previous models. So again, we're very excited about how that's going and very proud of how our team developed those products very quickly. One of the things we're doing is learning ways to introduce products more quickly as well, which, of course, is all about becoming more nimble.

Chad Dillard:

Got it. Okay. So one big theme that everybody's grappling with right now is just the transition from internal combustion to zero emissions. I guess just a blunt question, I mean, is CAT ready? And can you talk about just where in your portfolio you have new opportunities and just in terms of just where you think you see the adoption materializing first?

Jim Umpleby:

You bet. Well, again, start with what I mentioned earlier is that we're excited about the opportunities that are presented by this transition, particularly in our mining business. You think about the amount of copper, nickel, lithium, just for EVs, as an example, that will be required and all the other things as part of this transition, that's going to require a lot of commodities that customers use our equipment to produce. We have the leading product portfolio from a product perspective and a services perspective, thinking about autonomy in mining. So we're very excited about that. Our autonomous solution, we've had customers talk publicly about enjoying a productivity boost up to 30% compared to the best-manned site. We're excited about that.

Jim Umpleby:

Having said that we are investing in our own products as well, to help our customers achieve their goals for reducing their carbon footprint. So we've introduced a number of products and we have a lot of, be more coming, but things like a locomotive that our Rail division introduced a zero emissions battery powered switch locomotive that works in the yard, one of the first of those that was introduced. I talked earlier about what we were doing in terms of our dynamic gas blending, dynamic gas engines, that allows customers to substitute up to 85% diesel with natural gas. And we're now introducing hydrogen as well. We're using hydrogen blends in our gas turbines, in our recip engines. And we have a mining underground loader that is completely battery powered for underground. We are investing in and we'll have more battery powered products across the product line. We're talking to our mining customers about different ways that we can allow them to achieve their sustainability goals.

Jim Umpleby:

I think we're very well positioned. We bring so much to the table. When you stop and think about our mining customers are our big customers, given our services support, given the amount of money that we can spend, right, on R&D, our long-term technical capabilities, and the fact that we're integrating autonomy into a number of our products as well, we can bring all that to bear, to help make our customers more successful. So again, we're really excited about the opportunities that the energy transition presents for Caterpillar over the long haul.

Chad Dillard:

And just to stick with this theme and just want to understand a little bit more about the investment you did and by that, I'm talking more about on the service side, on the dealer side. What exactly do you need to do to push those to [see] the future?

Jim Umpleby:

Certainly. So we're working very closely with our dealers. We have some businesses that are direct, like our Rail business, our Solar business, but we also have dealers for our Cat branded products, and we're working very closely together. I talked earlier about connected assets, CVAs, the things we're doing around our digital capabilities. Some of the investments we're making, as well, are things like acquisitions. So we acquired Weir Oil and Gas, the SPM acquisition, and that allows us to offer a more complete solution from trailer to wellhead. And that is both a Services play and a product play because it came with both. We recently established a new remanufacturing division. Of course, Remanufacturing is a big part of sustainability as well for Caterpillar because if, in fact, we can remanufacture a product that requires less energy and much lower carbon footprint than manufacturing a new product.

Jim Umpleby:

So we've introduced a new division with a new Vice President to help work with our dealers to grow that business as well. Our dealers are using what we call the customer value agreements, or CVAs, and pairing them with Caterpillar certified used machines. And that pairing drives alignment with their aftermarket parts strategy and also provides additional touch points from our dealer to our customer. In Resource Industries, we're doing things like extending truck life through rebuilds, which really, we believe, gives us a competitive advantage there because it provides value to our customers and also helps us with the services revenue, as well. And we're expanding those rebuild options to address customers' varying needs. And again, so a lot going on, but we are making investments, and this is a never-ending journey here, but we're pleased with how it's going so far.

Chad Dillard:

So just actually move on. Again, sorry about the dog.

Jim Umpleby:

No problem.

Chad Dillard:

So your customers have been very vocal about de-carbonizing starting in 2030. Can you just talk about CAT's role in that whole process and like some of the products you have and how does this change your service or parts intensity there?

Jim Umpleby:

Yeah, so again, we are in conversations with our customers, including our mining customers, to help them find ways to reduce their carbon footprint. You know we have a long history of innovation to drive value to the customers through both our products and our services. And so I mentioned earlier that we have with us an R1700 underground loader. We call it a load haul dump loader. It's completely battery powered for underground mining, zero emissions. That's already out there, already available, already running.

Jim Umpleby:

We are talking to customers in... Different mining customers have different strategies for how they will achieve their sustainability objectives. And that will require us to be flexible as well, to have different products and different solutions to meet their needs. But we're having those conversations where, and I don't want to get ahead of myself in terms of product introductions here, but we are working on a number of things and having those conversations. And you'll be hearing more about that in the months ahead.

Chad Dillard:

That's good. So we've got a couple of questions from the audience right here. So can you just talk about your strategy in dealing with the Chinese competition in China and broader Asia? And can you talk about what the pricing environment is like right there?

Jim Umpleby:

Certainly. Well, you know, we've been in China for many decades. I'm lucky enough that my predecessors invested heavily in China. So we have about, well, more than 10,000 employees. We have dozens of manufacturing facilities. We vertically integrated our supply chain in China. And so we have local leadership in China as well, all the way to the top, and we have local suppliers. So when customers look at us, yes, we're, of course we're an American brand and an American company, but we already are very much...We look like a local company from that perspective. Just to give you a sense, China typically is 5 to 10% of our company revenues. Just to give you a sense of where that stands. Certainly we have competition and the competition is tough in China, but you know, I've been doing this for 40 years and we've always had competition. We'll always have competition. And my view is, to quote the late Andy Grove, "Only the paranoid survive." So we always need to up our game to get better every single day in terms of what we have with our products.

Jim Umpleby:

I've talked about the GX product line and what we're doing there. We're also continuing to build out our dealer capabilities in China. It is a price competitive market. There's no question, but that's one of the reasons that we introduced the GX product line that allowed us to lower our, both the cost of the equipment from a first cost perspective and lower that price point. And it really targeted customers who value a cost per hour over productivity per hour. And typically what happens in a maturing market.

What we've seen over the years is typically there's a shift from that cost per hour to productivity per hour over time.

Jim Umpleby:

But we certainly want to capture those customers that are interested in cost per hour, which is the reason we have the expanded offering strategy. Why we have the GC and GX product lines in addition to our premium models. But certainly it's competitive, but in my view it makes us better. I mean, the fact that we can learn to be successful in China is one of the things that Caterpillar did way back when, and in the 1960s and 70s in Japan, by putting operations in China and learning how to compete in Japan, against Chinese competitors. We're doing the same thing in China. Very focused on that market. And again, it makes us better. It makes us more cost sensitive, and it helps drive a lot of what we do. So again, we're confident in our ability to continue to compete in China over the long haul.

Chad Dillard:

Great. And so the next question is just on the autonomous side. Just again [crosstalk].

Jim Umpleby:

Is on what? I'm sorry. Chad. Say it again. On.

Chad Dillard:

This is on the autonomous side.

Jim Umpleby:

Autonomous.

Chad Dillard:

This question from the audience. So what are the white spaces you see here? And this is a question more from like an M&A perspective. Is there anything that you need to go out and organically acquire to grow that business?

Jim Umpleby:

Yeah, so we're, we're continually looking at potential M&A opportunities. You know, we made an acquisition of a company called Marble Robotics to accelerate our development of the next generation of digital job site solutions, including autonomy. We continue to invest heavily ourselves in advancing that autonomous solution. We feel quite confident that we have the best autonomous solution, but we need to keep that lead. We need to keep that edge. So we're making it better all the time. And we're also expanding it to different products in the mining space, and also are focused on introducing it in Construction Industries area as well. And in mining in terms of our trucks, we have autonomous dozers, drills, underground loaders, water trucks.

Jim Umpleby:

One of the things we did at the last CONEXPO show in Las Vegas, which was March of 2020, right before everything was shut down. It seems like an eternity ago before the pandemic hit us all. We demonstrated the ability to have an operator sitting there in Las Vegas, operating something autonomously. Three machines in a different part of the world, right? So you get them started. And then you think about the potential productivity impact of that on our customers. When customers can operate multiple machines in a semi-autonomous way from a remote location, and we've already started, we already have that capability and we've demonstrated it. So again, those are some of the things that we're doing, but from an M&A perspective, we're continuing to look at things that we can do to bolt on, to accelerate the development of our autonomous journey.

Chad Dillard:

Okay. Another question from the audience and recognizing, it may not necessarily be a completely fair question. But you're often, not questioned, but I hear you're potentially unfairly compared to Deere and they've been able to raise price pretty significantly for the value that they're creating. Is it possible for Cat to do the same and when can we see Cat post somewhere around high single digit price realization, that's not just based on inflation, but actual value creation.

Jim Umpleby:

Yeah. So what we're really focused on is driving shareholder value over time, which again, we tied to our ability to increase OPACC, which is operating profit after capital charge. Our business is not exactly the same as Deere's in that we don't have that big Ag business, but I'm very proud of our financial performance. So we're not just focused on any one single metric. Price is important, but there's many other things that we do as well to drive value. And it's all about driving shareholder value, which is increasing that absolute dollar OPACC. We have, we have targets for, that we've talked about for improving operating margins. We've got a cashflow target. So again, I'm pleased at how we're proceeding, and I don't get overly focused on any single metric. What we're after here is driving shareholder value through a whole variety of means.

Chad Dillard:

Okay, so mine automation. How has this product suite change your go-to-market approach? Your operating profile? And maybe you can compare this upcoming cycle to the last mining cycle we had.

Jim Umpleby:

Yeah, certainly. The autonomous solution has driven a bit of a different approach in that Caterpillar traditionally would produce a product, hand it over to our dealers and our dealers would handle our customers. Given the complexity and the site integration that's required with autonomy, when we sell an autonomous solution, typically Caterpillar employees then are onsite, which is a positive thing for us in our view, right? It helps our customers become more productive. It makes, and if we're successful, it really makes us a partner in our customer's operation. And we've been very pleased based on the autonomous solutions we've sold so far, that customers come back to us. Customers want to introduce autonomy at other sites that they have around the world. So we're really pleased at that. So it does change things a bit in terms of how we operate with our customers, how we deal with them. But we, again, we think that's a very positive thing.

Jim Umpleby:

It's continuing to grow. It really started primarily in iron ore, now it's in copper and we're getting orders for gold and other commodities. So again, we expect it. We've clearly in my view, hit a tipping point there where if in fact a mine site is of a given size, it makes sense for our customer to make that investment in autonomy.

Jim Umpleby:

So there was also the second part of your question there, I believe Chad was about the cycle and how this one could be different than the last one. And as I mentioned previously, I believe much of the mining cycle last time was very much based on one country and that was China. What was happening there. And if we step back and think about the commodity cycle that could be driven through the significant investment by governments and by private companies as well in the energy transition and the commodities that will be required to meet that, that certainly has the potential to provide a long expansion in mining, which we're quite excited about. And what I'd like, I think it'd be good for everyone, is not to have to these big spikes up and down, but a more gradual increase.

Jim Umpleby:

And so, we're involved in a number of tenders, we've been successful in some of those. And a lot of those are multi-year. So again, we're quite bullish on our mining business over the next few years.

Chad Dillard:

Great. So just switching gears over to Services, which has been a creative keystone of your broader strategy. Perhaps you could rank order where you see the greatest opportunity for Service growth, whether it be Construction Industries, Resource, E&T, and particularly on construction side, could you just give us a little more detail on how you plan to grow services within that business? Because I have to imagine that there is a difference in terms of services intensity, in E&T and Resource versus construction just given the utilization of equipment. So any color on that would be really fantastic.

Jim Umpleby:

You bet. Well, certainly we're focused on all three segments in growing services everywhere. So we want to do that. And as I mentioned earlier, in some of our businesses, like Solar Turbines and in our Rail business, we've been at it longer, so the Services portfolios are more developed. But even having said that we're continuously finding ways to increase Services in Solar and Rail as well. Mining we've talked about, we've talked about what we're doing in autonomy. And again, there are opportunities in mining to certainly increase services. We're excited about those opportunities. And again, having people make at the job site with our customers, making them more successful, helps position us if we do our job right. And we have to create value for customers every single day and get better every day, to capture that. But having said that, Construction Industries represents a very large opportunity.

Jim Umpleby:

So that's the largest opportunity that we have in terms of increasing services and in sort of a whole variety of ways. We've talked about some of them in terms of what we're doing with CVAs and digital, but, but we want to do a better job of getting a higher parts share as well. And that requires us to do a whole variety of things. And one of the things we've done over the last three years is become much more purposeful when we make sourcing decisions. And we had what was called an enterprise component strategy that we put forward for every single product.

Jim Umpleby:

Where previously we were very focused on first cost, which is certainly important. First cost is important because you have to be competitive in the marketplace. But we always didn't give as much thought as we needed to, in my view, in terms of thinking about the aftermarket. So simple as, okay, should we make this part? Should we buy this part? Right? If we don't have the scale to make it ourselves and we buy it on the outside, should it be our IP, which gives us more flexibility in the aftermarket. If it doesn't make sense for it to be our IP, maybe we buy from somebody else and we just brand it. We're not going to be an old Russian factory that ... a Soviet Union factory that makes every bolt and nut, we're not going to do that. But we're just being more purposeful as we design products, thinking about the aftermarket in terms of how we position ourselves there.

Jim Umpleby:

And also, we talked about these tools we're rolling out. We talked about our digital strategy, everything a customer can now do mobily on their phones. So we're changing. Certainly our customers are changing, the marketplace is changing and we're investing heavily to make that happen. Our leadership teams are very focused on Services. Our executive compensation is based on growing Services, so we've got everybody focused on that.

Jim Umpleby:

But it's a long answer to your question, but Construction Industries represents probably the biggest opportunity there for us to grow services. But there are opportunities in other parts of the business as well in RI and in E&T.

Chad Dillard:

Great, okay. So I have to ask you a question about reinvestment. I think that's been a big question with the Cat investor base. And I guess point blank, I mean, is Cat reinvesting enough in its business?

Chad Dillard:

I ask because if you look at other companies within your space that are going through similar ... their transformational changes, whether it be precision Ag or alternative propulsion, their investment intensity as a percentage of sales is five and a half, four and a half percent pre-tax. Maybe 100 to 200 basis points lower.

Chad Dillard:

So I guess, can you just talk about, I guess, your comfort level. Is this the right investment intensity for this business with a number of changes ahead?

Jim Umpleby:

Yeah. So we aren't constrained in R&D in any way. We are focused on getting return on the investments we make. So we are investing heavily, we'll be investing more. I'll give you some examples of some of the things that we're investing in, whether it's our digital capabilities, our new expanded offerings product lines, like the GX models. We are investing to help our customers meet their sustainability targets as well.

Jim Umpleby:

But we're also working very hard to do it efficiently. So I would just caution everyone, you just can't look at a number to say, "All right, one company spending X, one company's spending Y in terms of a percent of sales, are they spending enough?" As I mentioned earlier, we are working hard to become more efficient. We're doing more engineering offshore. And there's quite a significant cost advantage of designing products. We have a large design center now in India versus in the US. So by doing some of those kinds of things we've been able to improve our efficiency as we developed new products.

Jim Umpleby:

So again, it's not just about a percent number, but I can assure you that we have tremendous support from our board of directors to invest in R&D, to invest in new products. And we certainly recognize that continued investment will be required as we go through this energy transition.

Chad Dillard:

Yeah. [crosstalk]-

Jennifer Driscoll:

So just a reminder. We've got about five more minutes, Chad.

Chad Dillard:

Okay, sounds good. So, Jim, it's your lucky day. I'm giving you a hundred million dollars to invest in more R&D. How do you allocate it?

Jim Umpleby:

Yeah. Well, again, we're not constrained by R&D. So if I wanted to spend a hundred million more dollars, I could spend a hundred more million dollars so again, we're not constrained. And we really look at what we need to invest to be competitive from a product perspective, again, keeping in mind the energy transition. We look at what we need to do to increase Services.

Jim Umpleby:

Our investments can be comfortably managed within our Investor Day margin targets, and we'll continue to invest in those things that we've talked about. And continue to make bolt-on acquisitions and do those kinds of things as well to help us advance that journey. So again, we're not constrained in any way in our R&D spending.

Chad Dillard:

Okay. So portfolio optimization is always an unfinished business. Can you talk about the framework that you use to determine which businesses stay versus go, and just where's your head space in terms of the current Caterpillar portfolio?

Jim Umpleby:

Yeah. Well, certainly an important part of our strategy. We haven't talked much about what we call the Operating and Execution Model, or O&E Model, which is one of the things we've used over the last few years after we introduced our new strategy in 2017. But we clearly want to bias our investments in those businesses that represent the best opportunity for future profitable growth, and making those choices is very important.

Jim Umpleby:

We have in fact made a decision to exit some businesses. We've made the decision to go through a certain amount of restructuring to change our footprint, to improve our competitiveness. But really it's a combination of things. We look at not only ... When we make a decision about a business, not only its profitability today or its return today, what are its prospects in the future based on what we perceive will happen with the marketplace. We think about the amount of money that would be required to invest in that business, to ensure that it remains profitable going forward, and compare that against other opportunities that we have. So again, we're becoming much more purposeful about allocating our resources to those areas that represent the best opportunities for future profitable growth.

Jim Umpleby:

And so again, it's a never-ending journey. I'm often asked in these kind of meetings, "Well, are you done?" Well, we're never done in my view. That's something that we continually need to do, is to look at the portfolio, make those calls, make those decisions as to where we're going to exit, where we're going to put our bets moving forward. And also, what's also never ending is those investments to make us more competitive, to improve our footprint, to reduce our cost structure. That's, again, one of those never-ending journeys as well.

Chad Dillard:

Okay. So I just want to spend some time on cashflow, and particularly on the working capital side. Compared to the last cycle, you've definitely changed how you manage your channel inventory. Can you dig into that, talk about what changes you've made, how it's driving your decision process between balancing availability, versus the pricing power derived from the scarcity.

Jim Umpleby:

So dealers, first of all, when we think about dealer inventory. Dealers are independent businesses and they make their own decisions about their inventory. But we did introduce a new S&OP process over the last couple of years, which allows us to work with our dealers in a more efficient way. I think one of the things that exacerbated the downturn that Caterpillar had between 2012 and 2016 is there was too much dealer inventory. And that made that downturn more severe and longer than it needed to be. So we're working closely with our dealers to try to reduce what we call the whipsaw effect, up and down of those changes.

Jim Umpleby:

I talked about some of the tools that we've deployed, like PIC, or Parts Inventory Collaboration, on the parts end, where we have that visibility within our dealers of their parts inventory. And to help them optimize that, so they don't have too much, or too little. So again, I think, we [inaudible] have a million connected assets and all those kinds of things give us better visibility and improve our ability to work with our dealers. But again, at the end of the day, inventory is their decision as independent businesses, but it gives us the ability to make recommendations, to do a better job there.

Chad Dillard:

Okay. And then just to round it off, we probably should talk one last question about infrastructure. So the last time we saw an infrastructure package it was right during the global financial crisis. Obviously the scale is much smaller than the potential one ahead, but beyond the scale of the plan, how will this time be different for Cat? You can talk about a product offering, margin structure, et cetera.

Jim Umpleby:

Well, certainly we believe that infrastructure investment is a key to America's competitiveness, in keeping the nation strong. We all know that we need to fix and strengthen our crumbling infrastructure, roads, bridges, ports, broadband, and all the rest. As you know, there's a lot of uncertainty in DC, although there seems to be bipartisan support for traditional infrastructure. This is one of the things I just mentioned. There's a lot of movement and there's a certain amount of negotiation, as you know, going on in DC as to how that will work in the end.

Jim Umpleby:

But we're very excited about the possibility of an infrastructure bill. That clearly would be a positive thing for us. We feel very good about our competitive position, wherever we are with our dealers, what we're doing with Services. So it would certainly be a positive for us if in fact an infrastructure bill was passed. And we're just very excited about that.

Jim Umpleby:

But it's difficult to compare what's in this potential bill, what was in the last bill, but again, we're very well positioned from a product perspective to take advantage of that. And to do a good job serving our customers as they invest in the nation's infrastructure.

Chad Dillard:

Okay. We'll leave it there. Well, we're all out of time. I just want to say thank you so much, Jim, for spending the last 50 minutes with us, and thank you to those of you in the audience. And have a good rest of the conference.

Jim Umpleby:

All right, Chad, appreciate your time. Thank you.

Chad Dillard:

Yeah.

Jennifer Driscoll:

Thank you, Chad.