



Caterpillar, Inc.

Third Quarter 2022 Earnings Conference Call

October 27, 2022

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P R E S E N T A T I O N

Operator

Welcome to the Third Quarter 2022 Caterpillar Earnings Conference Call.

Please be advised that today's conference is being recorded.

I would now like to hand the conference over to your speaker today, Ryan Fiedler. Thank you. Please go ahead.

Ryan Fiedler

Thank you, Emma. Good morning, everyone, and welcome to Caterpillar's Third Quarter of 2022 Earnings call.

I'm Ryan Fiedler, Vice President of Investor Relations. Joining me today are Jim Umpleby, Chairman and CEO, Andrew Bonfield, Chief Financial Officer, Kyle Epley, Senior Vice President of the Global Finance Services Division, and Rob Rengel, Senior IR Manager.

During our call today, we'll be discussing the third quarter earnings release we issued earlier today. You can find our slides, the news release and a webcast recap at investors.caterpillar.com under Events and Presentations.

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Moving to Slide 2, during our call today we'll make forward-looking statements which are subject to risks and uncertainties. We'll also make assumptions that could cause our actual results to be different from the information we're sharing with you on this call. Please refer to our recent SEC filings and the forward-looking statements reminder in the news release for details on factors that individually or in aggregate could cause our actual results to vary materially from our forecasts. A detailed discussion of the many factors that we believe may have a material effect on our business on an ongoing basis is contained in our SEC filings.

On today's call, we'll also refer to non-GAAP numbers. For a reconciliation of any non-GAAP numbers to the appropriate U.S. GAAP numbers, please see the appendix of the earnings call slides. In addition, the appendix includes a calendar of expected earnings dates in 2023, starting with January 31 for our fourth quarter call.

Today, we reported profit per share of \$3.87 for the third quarter of 2022, compared with \$2.60 of profit per share in the third quarter of 2021. We're including adjusted profit per share in addition to our U.S. GAAP results. Our adjusted profit per share was \$3.95 for the third quarter of 2022, compared with adjusted profit per share of \$2.66 for the third quarter of 2021. Adjusted profit per share for both quarters excluded restructuring costs.

Now, let's turn to Slide 3 and turn the call over to our Chairman and CEO, Jim Umpleby.

Jim Umpleby

Thanks, Ryan. Good morning, everyone. Thank you for joining us.

As we close out the third quarter, I want to thank our global team for delivering another good quarter, including strong top line growth, higher operating profit margins and robust ME&T free cash flow despite continuing supply chain challenges. Our third quarter results reflected healthy demand across most end markets for our products and services. We remain focused on executing our strategy and continue to invest for long-term profitable growth.

In today's call, I'll begin with my perspectives on our performance in the quarter and then I'll provide some insights on our end markets. Lastly, I'll provide an update on our sustainability journey.

Turning to Slide 4. Overall, it was a very strong quarter. Sales increased 21%, in line with our expectations. Operating profit improved by 46%, although the margin improvement of 280 basis points was slightly less than we had anticipated. The sales growth was led by price realization and volume growth. Sales were higher in all regions with double-digit increases in each of our three primary segments. Services growth momentum continued in the third quarter as a result of our services initiatives and investments.

Similar to previous quarters, our top line would have been even higher if not for ongoing supply chain constraints. We generated strong operating profit margin improvements in the quarter, both on a year-over-year and sequential basis. The adjusted operating profit margin was 16.5%. Adjusted profit per share increased 48% to \$3.95.

We generated robust ME&T free cash flow of \$2.1 billion. Our backlog continued to grow. It increased by \$1.6 billion in the quarter and is now \$30 billion. Compared with the third quarter of 2021, sales to users increased 7%. For machines, including Construction Industries and Resource Industries, sales to users increased by 2%, while Energy & Transportation was up 22%.

Timing of deliveries from dealers to customers resulted in sales to users that were slightly below our expectations. Sales to users in Construction Industries were about flat. North American sales to users were up slightly. Dealer inventories in North America remained at relatively low levels due to healthy demand and supply chain constraints.

Latin America experienced higher sales to users, while EAME declined slightly. Asia-Pacific sales to users were down in the quarter. However, excluding China, sales to users in the Asia-Pacific region increased. In Resource Industries, sales to users increased 10% with increases in mining as well as heavy construction and quarry and aggregates.

In Energy & Transportation, sales to users increased by 22%. Oil and Gas sales to users benefited in the third quarter from continued improvement in reciprocating engines. Turbines and turbine-related services were about flat. Power Generation and Industrial sales to users remained strong due to favorable market conditions. Transportation increased from a relatively low base, primarily on strength in marine and international locomotives.

Dealer inventory increased by about \$700 million in the third quarter compared to a decrease of about \$300 million in the same quarter last year.

Most of the increase relates to timing differences between when we ship products to dealers and when the dealers in turn are able to deliver completed orders to customers. Although, the rise in dealer inventory was greater than our expectations, inventories remain near the low end of the typical range.

As I mentioned, adjusted operating profit margins improved by 280 basis points to 16.5%. Strong price and volume offset increases in manufacturing costs in SG&A and R&D expenses. Manufacturing cost increases reflected continued higher material and freight costs and manufacturing inefficiencies caused by supply chain disruptions, resulting in our margins for the quarter being slightly lower than we had anticipated.

Moving to Slide 5. We generated \$2.1 billion of ME&T free cash flow in the quarter. We repurchased \$1.4 billion of stock and returned about \$600 million in dividends to shareholders. We remain proud of our dividend aristocrat status and continue to expect to return substantially all ME&T free cash flow to shareholders over time through dividends and share repurchases.

Now on Slide 6. I'll share some high-level assumptions on our expectations moving forward. While we continue to closely monitor global macroeconomic conditions, overall demand remains healthy across our segments. We expect top line growth in the fourth quarter both year-over-year and sequentially.

This expected performance reflects healthy demand and favorable price realization. We anticipate sales increases across our three primary segments as order levels and backlogs remain strong. As a reminder, dealers have been focused on supplying customer orders, and we'll look to replenish aging rental fleets over time when the supply chain situation improves.

We expect adjusted operating profit margins to be significantly higher in the fourth quarter versus the prior year and slightly higher than in the third quarter. However, we now anticipate that our full-year margins will be at the low end or slightly below the low end of the Investor Day target range.

The headwind is primarily due to ongoing manufacturing inefficiencies related to supply chain constraints, ongoing inflationary pressures within manufacturing costs, and our conscious decision to continue to invest for profitable growth. That said, we expect to achieve our Investor Day ME&T free cash flow target range of \$4 billion to \$8 billion.

Now, I'll turn to our outlook for key end markets.

Residential construction generally accounts for about 25% of sales in construction industries while non-residential is the remainder. In North America, residential construction is moderating due to tightening financial conditions but remains at relatively high levels.

We expect non-residential construction in North America to strengthen, supported by the impact of government-related infrastructure investments. In Asia-Pacific, excluding China, we expect moderate growth due to higher infrastructure spending and commodity prices. As we mentioned last quarter, weakness continues in China in the excavator industry above 10 tons. It is expected to remain below the 2019 levels due to low construction activity.

In EAME, business activity is expected to be flat to slightly down versus last year based on uncertain economic conditions in Europe. However, strong backlogs and announced infrastructure plans limits the decline. Construction activity in Latin America is expected to grow due to supportive commodity prices.

In Resource Industries, our mining customers continue to exhibit capital discipline. However, commodity prices remain supportive of continued investment despite trending lower recently. We expect production and utilization levels will remain elevated, and our autonomous solutions continue to gain momentum. I'll highlight an example in a moment.

We expect the continuation of high equipment utilization and a low level of parked trucks, which both support future demand for our equipment and services. We continue to believe the energy transition will

support increased commodity demand, expanding our total addressable market and providing opportunities for profitable growth. In heavy construction and quarry and aggregates, we anticipate continued growth in the fourth quarter.

In Energy & Transportation, we expect continued sales momentum in the fourth quarter due to strong order rates in most applications. In Oil and Gas, although customers remain disciplined, we are encouraged by continued strength in reciprocating engine orders especially for large engine repowers as asset utilization increases.

New equipment orders for Solar turbines have strengthened significantly, particularly in oil and gas, indicating sales growth in late 2022 and into 2023. Solar services revenue is expected to remain steady. We expect a strong fourth quarter, which is typically our highest sales quarter of the year for Solar.

Power Generation orders remain healthy due to positive industry dynamics and continued data center strength. Industrial remains healthy with continued momentum in construction, agriculture and electric power. In Rail, North American locomotive sales are expected to remain muted. We also anticipate growth in high-speed Marine as customers continue to upgrade aging fleets.

Moving to Slide 7. As we continue to advance our sustainability journey through the third quarter of 2022, Caterpillar, Cat Dealers and our customers announced a number of projects that will help contribute to a lower carbon future. I'll highlight two today.

In late August, we announced a significant step in this journey when BHP Group Limited, Caterpillar and Finning International announced an agreement to replace BHP's entire haul truck fleet at the Escondida Mine in Chile, the world's largest copper producing mine. We will replace one of the industry's largest mixed fleets that is currently comprised of over 160 haul trucks with new Caterpillar 798 AC electric drive haul trucks. Deliveries begin in 2023 and will extend over 10 years.

The new electric drive trucks will feature technology that delivers significant improvements in material moving capacity, efficiency, reliability and safety. The agreements allow BHP to accelerate the implementation of its autonomy plans by transitioning the fleet to include technology that enables autonomous operation. In addition, the agreement set forth a path for BHP to meet its decarbonization goals through the progressive implementation of zero-emission trucks.

Second, we're currently displaying four battery-electric machine prototypes at bauma in Munich, Germany, including mini and medium excavators, a GC medium wheel loader and a compact wheel loader. Each machine is powered by Caterpillar battery prototypes and includes onboard AC chargers.

We also plan to offer an offboard DC fast charging option. Leveraging our deep system integration experience, the batteries are scalable to industry and customer performance needs and maximize sustainability throughout their life cycle, including recycling and reuse at the end of life. The Caterpillar designed batteries in these machines will also be available to power other industrial applications highlighting our ability to leverage technology across the enterprise.

With that, I'll turn the call over to Andrew.

Andrew Bonfield

Thank you, Jim, and good morning, everyone. I'll start by walking you through our third quarter results, including the performance of our segments. Then I'll discuss the balance sheet and ME&T free cash flow before concluding as usual with our expectations for the fourth quarter and full year.

Beginning on Slide 8. Sales and revenues for the third quarter increased by 21% or \$2.6 billion to \$15 billion. The increase was due to strong price realization and volume partially offset by currency impacts. Operating profit increased by 46% or \$761 million to \$2.4 billion as price realization and volume growth were partially offset by higher manufacturing and SG&A and R&D costs.

Our adjusted operating profit margin of 16.5% increased by 280 basis points versus the prior year's quarter as the impact of price realization and volume growth outpaced continued manufacturing cost increases. Adjusted profit per share increased by 48% to \$3.95 in the third quarter compared to \$2.66 last year. Adjusted profit per share for both quarters excluded restructuring costs, which were \$0.08 per share this quarter, compared to \$0.06 in the prior year.

In total, taxes benefited profit per share by about \$0.06 per share for the quarter. During the third quarter of 2022, we reached a settlement with the U.S. Internal Revenue Service that resolves all issues for tax years 2007 through 2016. We are pleased to have settled the audit without any penalties and within our reserves. The settlement includes, amongst other issues, the resolution of disputed tax treatment of profits earned by Caterpillar SARL in certain parts transactions.

The final tax assessed by the IRS for all issues under the settlement was \$490 million for the 10-year period. \$467 million dollars of this was paid in the third quarter of 2022 and the associated estimated interest of \$250 million is expected to be paid by the end of the year. The settlement was within reserves, and the company recorded a discrete tax benefit of \$41 million to reflect changes in estimates of prior year taxes and related interest, net of tax.

Now on Slide 9. The top line increased by 21% on strong price realization and volume while currency was a headwind given the strong U.S. dollar. Overall, sales were about as we expected. Regarding volume, the largest benefit versus the prior year was a \$1 billion favorable quarter-over-quarter change in dealer inventory. Sales to users increased by 7%. While there is continued uncertainty regarding the macroeconomic backdrop, demand indicators remain supportive as sales to users increased by 7%. Backlog grew by \$1.6 billion to \$30 billion and dealer inventory remains at the low end of the typical range.

As we've seen in recent quarters, the dealer inventory increase was primarily due to issues resulting from the timing of deliveries from dealers to customers and delays in the commissioning machines as a result of labor shortages at dealers. The main impact was that sales to users was slightly lower than expected, with the corresponding offset increase in dealer inventories. As both Jim and I have indicated, we believe that the majority of this is timing and is not an indicator of changing market dynamics. Dealer inventories remained at the low end of the typical range.

Moving to Slide 10. As I mentioned, third-quarter operating profit increased by 46% on favorable price realization and volume. Price realization was in line with our expectations and was supported by healthy demand. Manufacturing costs continue to increase versus the prior year, primarily due to material and freight cost increases as well as manufacturing inefficiencies due to supply chain constraints. Overall, the impact of favorable price realization exceeded manufacturing costs for the quarter.

Finally, SG&A and R&D costs increased primarily due to investments aligned with our strategy for profitable growth, which included services growth and technology, such as digital, electrification and autonomy. Our third quarter adjusted operating profit margin of 16.5% was a 280 basis point increase versus the prior year. The impact of price actions accelerated so price realization was strong. Although, we began to lap the significant increases in material and freight costs seen in the second half of last year, we are still seeing cost increases from suppliers for materials in particular.

Finally, related to our recent price-cost performance, keep in mind that we are still catching up from the increases in manufacturing costs, which have occurred over the last few years. In particular, material and freight costs have increased by about 20% since 2020. Our gross margin of 28.5% for the third quarter is now only just getting back in line with the levels seen in the third quarter of 2019, despite sales and revenues being higher.

Moving to Slide 11. As we expected, segment sales and margins improved in the third quarter. Starting with Construction Industries, sales increased by 19% to \$6.3 billion, driven by favorable price realization and sales volume, partially offset by currency. Volume increased primarily due to changes in dealer inventories, which increased in the quarter compared to a reduction last year.

Sales in North America rose by 29% due mostly to strong pricing and a favorable change in dealer inventory. Dealers in North America decreased their inventories in the third quarter of last year, whilst we saw some build this year. North American dealer inventories still are very low, which impacts their ability to supply the region.

Sales in Latin America increased by 51% on strong price realization, higher sales of equipment to end users, and a favorable impact due to changes in dealer inventories. In both EAME and Asia/Pacific, sales were relatively flat as strong price realization was offset by currency.

Third quarter profit for Construction Industries increased by 40% to \$1.2 billion versus the prior year. Price realization and higher sales volume drove the increase as price more than offset manufacturing costs. Unfavorable manufacturing costs largely reflected higher material and freight costs in addition to manufacturing inefficiencies. The segment's operating margin of 19.3% was an increase of 280 basis points versus last year.

Turning to Slide 12. Resource Industries' sales grew by 30% in the third quarter to \$3.1 billion. The improvement was primarily due to favorable price realization and higher sales volume. Volume increased due to the impact of changes in dealer inventories, higher sales of aftermarket parts and higher sales of equipment to end users.

Third quarter profit for Resource Industries increased by 81% to \$506 million, as price realization more than offset manufacturing costs, which largely reflected higher material, freight and manufacturing inefficiencies. The segment's operating margin of 16.4%, was an increase of 460 basis points versus last year.

Now on Slide 13. Energy & Transportation sales increased by 22% to \$6.2 billion with sales up across all applications. Oil and Gas sales increased by 22% due to higher sales of reciprocating engine aftermarket parts and engines used in well servicing applications and gas compression. Power Generation sales increased by 31% as sales increased for both turbines and reciprocating engines as data center activity remains strong.

Industrial sales rose by 22% with strength across all regions.

Finally, Transportation sales increased by 9% on reciprocating engine aftermarket parts and relative strength in our marine applications. International locomotive deliveries also benefited sales.

Third quarter profit for Energy & Transportation increased by 32% to \$935 million. The improvement was primarily due to favorable price realization and higher sales volume, partially offset by higher manufacturing and SG&A and R&D costs.

As anticipated, price realization narrowly offset manufacturing costs. Manufacturing cost increases largely reflected higher material and freight costs coupled with manufacturing inefficiencies. Also, SG&A and R&D expenses increased due to investments aligned with our strategic initiatives, including electrification and services growth, in addition to higher short-term incentive compensation expense. The segment's operating margin of 15.1% was an increase of 120 basis points versus last year.

Moving on to Slide 14. Financial Products' revenue increased by 7% to \$819 million, benefiting from higher average financing rates in North America and Latin America. Segment profit increased by 27% to \$220 million. The profit increase was mainly due to a favorable impact from a lower provision for credit losses at Cat Financial.

Moving to our credit portfolio, our leading indicators remain strong. Past dues, a good proxy for the financial health of our customers, were 2.00% compared with 2.41% at the end of the third quarter of 2021. We also saw a 19 basis points decrease in past dues compared to the second quarter of this year.

Retail new business volume did decline compared to the record levels in the prior year. However, at this point, Cat Financial is not seeing slowing business activity but is instead impacted by strengthening competition from banks. This is typical in a rising interest rate environment as banks benefit from a lower cost of funds, especially due to customer deposits. Finally, used equipment demand remains strong as elevated prices have stabilized and inventories remain low.

Now on Slide 15. ME&T free cash flow in the quarter increased by about \$1.2 billion versus the prior year to \$2.1 billion. The increase was primarily due to higher profit and favorable net working capital. We did continue to build production inventory to support shipments and mitigate component delivery delays, an increase of about \$1 billion versus the second quarter.

Cumulatively, ME&T free cash flow year-to-date is \$2.8 billion, despite the increase in inventories and the payment of incentive compensation in the first quarter of 2022.

Looking ahead, we continue to expect to achieve our Investor Day ME&T free cash flow target of between \$4 billion and \$8 billion for the full year. As Jim mentioned, we paid around \$600 million in dividends in addition to repurchasing about \$1.4 billion worth of common stock, supporting our objective to be in the market on a more consistent basis.

Enterprise cash was \$6.3 billion, about a \$300 million increase compared to the second quarter 2022. The increase was primarily driven by higher free cash flow. Our liquidity remains strong as we continue to hold some of our cash balances in slightly longer dated liquid marketable securities in order to improve the yield on that cash.

Now on Slide 16. I will share some thoughts on the fourth quarter and the full year. As a reminder, the third quarter was generally in line with our expectations on the top line, and while margins were better than the prior year, they were marginally lower than we had anticipated.

Pricing gained momentum against a backdrop of stronger demand, while manufacturing costs increased on continuous inflationary cost headwinds for our suppliers and manufacturing inefficiencies due to the ongoing disruption to the supply chain. We also continue to invest for future profitable growth.

Looking ahead, we anticipate the fourth quarter will reflect our highest quarterly sales for the year, which is in line with typical seasonality. Compared to the prior year, higher sales to users and price realization should support the top line growth. At year end, we expect dealer inventories to remain at similar levels as they ended in the third quarter. We also expect sales increases across the three primary segments both year-over-year and sequentially.

Infrastructure spending should continue to benefit our segments over time as non-residential building accelerates and large projects commence. On margins, we should see slightly higher adjusted operating profit margins in the fourth quarter compared to the third on higher volume and continued pricing momentum. We do anticipate that manufacturing cost increases, including manufacturing inefficiencies, will act as a partial offset.

At the segment level, we expect to see similar margins to the strong third quarter performance in Construction Industries. In Resource Industries and Energy & Transportation, margins should strengthen compared to the third quarter and prior year. Compared to last year, all three primary segments should benefit from price realization and higher volume. We expect price realization to more than offset manufacturing costs across our three primary segments in the fourth quarter.

Finally, to assist you with your modeling, we continue to expect our accrual for short-term incentive compensation expense of about \$1.6 billion this year. Capex is expected to be about \$1.4 billion. We anticipate global effective tax rate of around 23%, slightly lower than previously expected due to changes in the geographic mix of profits from a tax perspective.

Finally, restructuring charges are expected to be up to \$800 million for the full year. There's a possibility that the largest item, which is a non-cash charge of approximately \$600 million relating to divestiture, may slip into 2023.

Turning to Slide 17. Let me summarize. Sales grew by 21% led by strong price realization and volume gains across the three primary segments. The adjusted operating profit margin increased by about 280 basis points to 16.5%.

ME&T free cash flow was strong at \$2.1 billion and we continued to return cash to shareholders on a consistent basis. The outlook remains positive with sales to users up 7% and the backlog up \$1.6 billion to \$30 billion. We continue to execute our strategy for long-term profitable growth.

And with that, we'll take your questions.

Operator

As a reminder, Management asks that you limit to one question per analyst. If clarification is desired, please rejoin the queue.

Your first question comes from the line of Rob Wertheimer with Melius Research. Your line is now open.

Rob Wertheimer

Thanks and good morning, everybody.

Jim Umpleby

Good morning, Rob.

Andrew Bonfield

Good morning, Rob.

Rob Wertheimer

My question is going to be—hey. My question is going to be on price and competition and I guess future market share. Your price is extremely strong. Your margins have come back strong with it. From the outside backlog looks very, very good as do orders. And I'm just curious if you can see your competition following your price increases. If your general market share trends are up, down, if you could give any comment on what you think the balance will be? Thank you.

Jim Umpleby

Well, thanks Rob for your question. We're always focused on remaining competitive in the markets that we serve around the world, and we certainly factor that into all pricing decisions. It's not a one size fits all situation. We do pay attention to the different dynamics and the different markets we serve. We are comfortable with our competitive position. Again, it's always something that we focus on.

Operator

Your next question comes from the line of Stephen Volkmann with Jefferies. Your line is now open.

Stephen Volkmann

Great. thank you. Good morning, everybody.

Jim Umpleby

Good morning.

Andrew Bonfield

Good morning, Steve.

Stephen Volkmann

My question is on the cost side and, Andrew, I think you mentioned a couple of times of your \$1.1 billion increase in manufacturing costs, some portion of that was related to unfavorable productivity from all the supply chain issues. And I'm wondering if you can maybe ballpark kind of how much of that it would be? And is there any reason not to think that productivity just sort of gets better and normalizes once supply chains are normal?

Andrew Bonfield

Yes, Steve, as I indicated, effectively manufacturing costs was slightly adverse to our expectations. That was why margins overall came in slightly lower than we had anticipated. Most of that is due, and it is a relatively small miss as a result of manufacturing inefficiencies. We don't break down manufacturing costs for a number of reasons. They do vary and all the buckets do vary quarter-on-quarter, but you are absolutely correct. Once we get past the supply chain bottlenecks, we do believe these inefficiencies will normalize. For example, they may be including things like additional labor in the factories which are there to help support out of process work as we keep continuing to make sure we get machines out as quickly as possible. That will normalize when supply chains are normal. So we will expect that to moderate over time as we go forward.

Stephen Volkmann

Thank you.

Operator

Your next question comes from the line of David Raso with Evercore. Your line is now open.

Jim Umpleby

Hi, David.

Andrew Bonfield

Hi, David.

David Raso

Hi. I'll let you answer this sort of open-ended question however you choose. I mean, it looks like if you get normal seasonality third quarter to fourth quarter on your revenues, sort of the way you're discussing the margins. You're pretty close to \$4 a share for the quarter. And I know fourth quarter's usually a little higher than the average quarter. But given what you're seeing in the backlog, your end-market commentary, prior discussion about price cost and so forth, what are the things that we should think about to not look at that \$4 number as a bit of a run rate going into 2023 for quarterly earnings power? Thank you.

Jim Umpleby

Yes, David, of course, as you can imagine here in this call, we're not going to talk about 2023 and what our expectations are for profit. But again, we are pleased at the way that the team performed in the year. And we talked about the fact that we still have supply chain struggles that we're dealing with, but we also have strong demand across most of our end markets.

Andrew Bonfield

And David, as we consistently said this year, it is an unusual year from a shape of earnings power perspective, because normally as you know, we start the year very strong from a margin perspective and margins move downwards as we go through the year. This year that is actually inverting the other way. So obviously that is part of that which we'll have to come back to when we talk about 2023, how the shape of that year will look as a result of those changes in market dynamics. And I'll remind you that obviously the fourth quarter is our highest—normally our highest quarter from a revenues perspective. That's consistently been the way for Caterpillar.

Operator

Your next question comes from the line of Jamie Cook with Credit Suisse. Your line is now open.

Jamie Cook

Hi, good morning.

Jim Umpleby

Hi, Jamie.

Andrew Bonfield

Good morning, Jamie.

Jamie Cook

Sorry to touch on 2023 again, but I'm just trying to think through as well. You think about Volkmann's question on inefficiencies going away and Raso's question on the \$4 per quarter run rate. I guess the other thing is as we think about 2023 dealer inventories are still exceptionally low and the rental fleet is also aged. So as you look at 2023, assuming the macro holds, would you expect to get dealer inventories back to more normalized levels and replenish the rental fleet, which would also sort of be additive to 2023? Thank you.

Jim Umpleby

Yes, and so much depends, Jamie, of course, on what happens with the supply chain and as you mentioned, what happens with demand as well. If in fact the supply chain situation improves and we're not making a prediction at this point, we've started to see some pockets of improvement and other areas remain very challenged. But if in fact the supply chain situation improves, one would expect dealers would try to get their inventories including rental fleets up to a more typical level. But again, so much depends upon the two big variables there, our supply chain and of course what happens in the end markets in terms of demand.

Jamie Cook

Okay, Thank you.

Jim Umpleby

You bet.

Operator

Your next question comes from the line of Michael Feniger with Bank of America. Your line is now open.

Jim Umpleby

Hi, Michael.

Andrew Bonfield

Hey, Michael.

Michael Feniger

Hey, good morning. You have highlighted for some time the growth in resources even when customers are constraining with their mining capex budget and being disciplined there. I'm curious, Jim, how you see that evolving with energy capex budgets. When we dig into that oil and gas energy side, there's some signs that rig counts' flattening, discussion of more disciplined capex just within your energy portfolio. What do you see the most strength in that backdrop as we go into 2023? Thank you.

Jim Umpleby

Well, certainly, as we mentioned, we do see our customers displaying capital discipline. However, we do see, as I mentioned in my prepared remarks, a lot of strength in oil and gas. I mean, reciprocating engines is an area of strength. Solar turbines, their order rates have improved quite substantially, which should help us in 2023. So one of the things to keep in mind, of course, is that customers need to maintain oil and gas production; to maintain a certain level of production requires continued investment just to maintain a flat level of production. And so, again, we are certainly encouraged by the signs that we see in terms of the order rates that are coming, and based on the conversations we're having with customers, we feel good about our prospects there.

Operator

Your next question comes from the line of Tim Thein with Citigroup. Your line is now open.

Jim Umpleby

Hi, Tim.

Andrew Bonfield

Hi, Tim.

Tim Thein

Hi, good morning. Thanks. Just maybe another one back on the manufacturing cost. And again, I get it, there's a ton of pieces within that. But maybe if we just circle back on the point about material and freight. Especially on the freight side, we've seen more real time, some fairly significant declines there. Obviously that doesn't impact you the next day, but what kind of lag relationship would there be or should we expect, again, just as we think about some fairly significant declines here in recent months, especially on the freight side and when that potentially begins to impact Cat? Thank you.

Andrew Bonfield

Yes, Tim, thanks. I mean, actually, the biggest single factor that we are focused on rather than actually just pricing of freight at the moment is actually utilization of freight, because one of the challenges has been actually the amount of freight we've had to use in order to get components around to actually build machines. That's been probably the bigger driver of some of the increase that we've seen.

The second part is, yes, you are correct. Freight and spot rates are coming down. We tend to contract normally six to 12 months in advance. So we have not yet seen the benefit of those lower rates. And those lower rates are some of the things we are favorable on. For example, roll on, roll off, we're actually favorable to the current market, but obviously container freight is coming down as well. So we're seeing some favorability on that in the spot markets. Obviously, we'll expect some of that to flow through as we move into 2023.

Operator

Your next question comes from the line of Jerry Revich with Goldman Sachs. Your line is now open.

Jerry Revich

Yes. Hi, good morning, everyone.

Jim Umpleby

Good morning, Jerry.

Andrew Bonfield

Good morning, Jerry.

Jerry Revich

Jim, really interesting to hear you talk about full-year margins at the low end of your Analyst Day range considering how good the results were versus consensus expectations this quarter. I'm wondering if you could talk about to get to the mid-point of the range, is it as simple as the pricing actions that are already locked in? Or are there other discrete steps that you're planning in any of the businesses to get you to the targeted levels. I guess based on the '23 list prices that you folks have in place, it feels like pricing should be accelerating further into the first quarter. So I'm wondering, does that get you to where you want to be? Thanks.

Jim Umpleby

Thanks for your question. One of the things to keep in mind is that our margin targets are progressive, which means that we need to achieve higher operating margins as sales increase. And in a moderate inflationary environment, which we saw for many years, sales increases typically are led by higher volumes and the benefit of the operating leverage associated with those higher volumes helps us achieve our progressive margins.

In the environment where we are in today, where a relatively larger portion of the sales increase is due to price realization, there's less operating leverage, which makes the delivery of those progressive margins more challenging to achieve.

So part of it is just a math issue in terms of where the sales increase comes from. Is it primarily volume, or is it primarily price and the impact on operating leverage. Having said that, our focus is closing out the year as strongly as possible in the fourth quarter. But that's really the issue. It's the issue around just the math and the assumptions that we made around our margin targets when we set them.

Jerry Revich

Thanks.

Jim Umpleby

You bet.

Operator

Your next question comes from the line of Stanley Elliott with Stifel. Your line is now open.

Jim Umpleby

Hey, Stanley.

Stanley Elliott

Hey, good morning, everyone. Thank you all for the question.

Andrew Bonfield

Good morning.

Stanley Elliott

A quick question. You mentioned if supply chain gets a little bit better, you start to see the dealer inventory piece kind of square back up a little bit into next year. Even if we do get a supply chain improvement, will you still be below kind of what would be normal historical levels at the dealer inventory? Just curious how to think about that. Thanks.

Jim Umpleby

Yes. It really depends on the specifics of what happens to demand, what happens to how much does the supply chain ease. There's really so many variables there that it's difficult to predict. Again, as we look at our dealer increase we just had, the inventory increase we just had, most of the increases related to timing differences between when we ship products to dealers and when they actually complete orders to customers. So again, we look forward to next year. It depends on demand. It depends on how much the supply chain eases and a number of other issues.

Andrew Bonfield

Yes. And just to remind you that dealers are independent businesses, so they make their own decisions about dealer inventory and is not something we can control. So they will actually build it based on what they—their expectations of the outlook is as well.

Stanley Elliott

Okay. Thanks.

Operator

Your next question comes from the line of Chad Dillard with Bernstein. Your line is now open.

Jim Umpleby

Hi, Chad.

Andrew Bonfield

Good morning, Chad.

Chad Dillard

Hi, good morning, guys. So I have actually a bit of a longer-term question. Just going back to your 160 truck win with BHP and Escondida mine. I'm just trying to understand, just like how does electrification

change your gross profit TAM across those vehicles versus internal combustion and just trying to think through the puts and takes as those deliveries start to trickle through in the second half of next year.

Jim Umpleby

Yes. So the profitability around diesel engine versus batteries, there's a lot of puts and takes there. And again, we are still working our way through what our services model would be and all that. We are excited about the opportunities that exist. And one of the things that we believe positions us very well is the fact that we have an Energy and Transportation segment, which allows us to have additional opportunities with our mining customers to help them get the site ready.

So just to resolve any confusion, the trucks that we start shipping next year for that mine will not be 100% battery trucks. So I think that was inherent in your question. So they're diesel electric trucks. Just to clarify that and that can be misunderstood in my statement.

Chad Dillard

Thank you.

Jim Umpleby

You bet.

Operator

Your next question comes from the line of Steven Fisher with UBS. Your line is now open.

Jim Umpleby

Hi, Steve.

Steven Fisher

Good morning. So given the lingering manufacturing inefficiencies that you're still experiencing, I'm curious how your planning process for 2023 is comparing or is going to compare to your process for 2022? Really thinking about the supply chain now that you've had another year of lessons learned, I'm curious what you think you can do differently for 2023 to further enhance your production capacity and flow?

Jim Umpleby

We're working closely with our suppliers and as I think all companies are doing, thinking about our supply chain, and certainly, resilience is very important. And of course, given the capital-intensive nature of our business and our suppliers, it isn't easy to make changes quickly, but we are working closely with our suppliers, trying to ensure that we have second sources in as many cases—in most instances. We're doing things in our factories as well to really try to anticipate issues that are happening.

There's no single magic button that we can push to make these issues go away. Again, it really comes down to our teams and our factories working to be creative to find ways to mitigate disruptions and again, working with our suppliers to try to get as much supply as we can get.

Andrew Bonfield

And then from a planning side, obviously, one of the things we do is we do various scenarios. And obviously, yes, we do look at what's happened, looking at that, try to then work through what the implications of that would be on production levels and how we would manage through that and then obviously trying to build in at the same time, demand signals. So it's a very dynamic process.

It's one that most large companies, as you would imagine, go through. The complexity for us is just the scope and scale of Caterpillar in that, obviously, you've got running this through 100-odd plants and so forth. So it is a lot of work and people are working very hard as we speak, getting ready for their '23 planning cycle.

Steven Fisher

Thank you.

Operator

Your next question comes from the line of Kristen Owen with Oppenheimer. Your line is now open.

Jim Umpleby

Good morning, Kristen.

Kristen Owen

Hi, good morning.

Andrew Bonfield

Good morning, Kristen.

Kristen Owen

Hi. I wanted to come back to your comments about the backlog offsetting maybe weaker EAME. A lot of the focus in Europe has been around the energy crunch and impact on industrial activity. But I'm wondering if there's any sort of commentary you can provide as to whether or not you're seeing it contribute favorably to your business, maybe in the form of energy security investments or energy asset hardening. Any commentary that you can provide there would be helpful.

Jim Umpleby

If we step back and think about it from a global macro perspective, certainly, the increased investment in oil and gas benefits our business and that's been driven by a whole variety of issues. The situation in Europe is only one of them. But as an example, if in fact the U.S. looks to export more LNG as an example, Caterpillar participates across a wide portion of that natural gas value chain. Our engines are used for drilling, our engines—our recip engines drive recip compressors for gas gathering. We're very involved at the well servicing site now with our acquisition from Weir Oil and Gas, we play a larger portion there.

Our solar gas turbines' driving—our solar natural gas compressors compress gas down the pipelines. So as an example, there is a drive for more LNG. Again, that that would benefit our business. So, again, there are a lot of factors there that are driving, of course, the dynamics in the oil and gas business. But

our participation there, again, I believe, stands to benefit from just the increased investment that most believe will happen over the next few years.

Andrew Bonfield

And then just always as a reminder, any move to further renewables is benefits us and particularly in our mining business, again as a result of the increased need for commodities in order to help with that transition. So ultimately, that does have benefits. The other thing just to remind you is there are some infrastructure initiatives in Europe which are obviously helping to keep some level of demand going. Obviously, the macro is obviously, as you know, and as we spoke a little bit negative, but obviously, those are offsetting benefits for us.

Jim Umpleby

Yes, a great example is the H2S project in the UK, right, where a lot of Caterpillar equipments' being used. So infrastructure in Europe is important. And a lot of that, of course, is government supported.

Kristen Owen

Thank you.

Ryan Fiedler

Emma, are you there?

Operator

Your next question comes from the line of Matt Elkott with Cowen. Your line is now open.

Matt Elkott

Good morning. Thank you. And if I may take it back to North America. I know you guys have touched on the unfavorable trends in residential construction in recent quarters. But I'd love to hear your thoughts on how the current housing downturn feels relative to prior housing downturns from your perspective. In other words, the impact you've seen so far on your equipment business this year relative to a similar point of the housing cycle downturn. I know that's probably not super easy to gauge, but any thoughts would be helpful.

Jim Umpleby

Yes, it's difficult to make a comparison to prior situations. But of course, we've been in a situation where the demand for our products that support residential housing had been very strong. So we've had very high order levels. We have talked about some softening there, but one of the things to keep in mind is, of course, that residential only represents about 25% of CI sales and the rest is non-residential.

And non-residential remains more resilient due to—for a whole variety of subjects and certainly, they're more resilient to rate increases, just due to capital planning cycles. Think about all the investments that are being made by governments around infrastructure, so that helps as well. But honestly, I don't have a good answer for your question in terms of how this compares to previous slowing in residential. Again, there's lots of predictions as to how that will play out over the next few years. But again, demand for our products in CI at a macro level still remains quite robust.

Matt Elkott

Great. Thank you very much.

Operator

Your next question comes from the line of Larry DeMaria with William Blair. Your line is now open.

Larry DeMaria

Thanks. Good morning. As it relates to the prospects of an oncoming recession, are you seeing any concerns out there yet aside from residential? Obviously, overall, orders are pretty strong. And are you doing anything to prepare now for one or is it more or less wait and see, considering the backlog is strong and it's low inventory?

Jim Umpleby

Yes. Certainly, we continue to closely monitor the global macroeconomic environment. Part of our—the strategy we laid out in 2017 was a competitive and flexible cost structure. So we've demonstrated the ability to take action when we need to take action. Having said that, as we sit here today, we continue to see healthy demand across most of our end markets.

I mean we have strong orders. Our dealer inventory remains towards the low end of the typical range. So again, we have demonstrated the ability to have a flexible cost structure and to react quickly when we need to. Think about 2020, the year when COVID hit, and we had a pandemic induced significant decline in our sales. We still met our margin targets that year. So again, we know what to do. But as we sit here today, even though we're watching things very closely, we continue to see healthy demand across most of our end markets.

Larry DeMaria

Thank you.

Operator

Your next question comes from the line of John Joyner with BMO Capital Markets. Your line is now open.

John Joyner

Hey, good morning.

Jim Umpleby

Hey, John.

John Joyner

Thank you for taking my—good morning. So I hate to pile on the manufacturing inefficiencies, but I guess how would you characterize the constraints today versus, say, six months ago, a year ago or earlier this year was a 10 with 10 being the worst, what would it be today? I mean I'm just trying to gauge how much things have improved or not? And maybe are there any areas that might not ever “normalize”?

Jim Umpleby

Yes. I wouldn't say that there aren't areas that won't normalize. So it's a mixed bag. So in certain areas, we still have real challenges. And again, the supply chain in certain areas have gotten a bit better. But in terms of manufacturing inefficiencies, if anything, they've gotten a bit worse as opposed to getting better in the last quarter.

Andrew Bonfield

Yes. And in terms of value, they are higher now than they were in Q2 and Q1. And obviously, that is something we're monitoring and keeping a very close eye on. Most of the manufacturing inefficiencies, it's not just how the process works. It is actually labor related. And part of that is obviously in an environment where we still see strong demand signals. You don't want to—even though your labor may be slightly higher than you would need for the level of production you've got, you will actually keep those people working in the plants because there's plenty for them to do. So that is the main cause of inefficiency that we're seeing today.

John Joyner

Okay. That's helpful. Thank you.

Operator

Your next question comes from the line of Seth Weber with Wells Fargo. Your line is now open.

Seth Weber

Hey, good morning, everybody. Good morning. I just wanted to follow up on that last question. On this—there's been a lot of questions and answers about the supply chain. But can you just maybe share what your partners are telling you about 2023? I understand you may want to handicap what they're telling you, but are they directionally telling you things are going to get better? Is it a first half? Is it second half? Are you getting any indications through the supply chain that things should be moving in the right direction for next year? Thank you.

Jim Umpleby

Yes. Honestly, it is a mixed bag. Caterpillar, as you know, has a very diverse product line, and we have a very diverse group of suppliers, thousands of suppliers around the world, and there isn't one answer there. So we continue to see semiconductor availability challenges are impacting things like engine control modules, which have an impact on many of our products. So that's still a challenge even though, certainly, we follow what happens in the semiconductor industry, and we've read about some of the improvements for the ones that we use, and again, those that go into ECMs, that's still a bit of a challenge. My sense is that—so many suppliers that are struggling now are quite reluctant to make any kind of predictions because many people have made predictions since we've gone into the situation that have proved to be wrong about improvement. So again, what we're doing is working with them as closely as we can to help them get as much supply out as they can. And as we mentioned earlier, to try to mitigate the impact of those shortages in our factories and that's really our focus.

Ryan Fiedler

Hi, Emma. This is Ryan. We've got time for one more question.

Operator

Excellent. Today's final question comes from the line of Tami Zakaria with JPMorgan. Your line is now open.

Jim Umpleby

Hi, Tami.

Tami Zakaria

Hi. How are you? Thank you for taking my question. So based on the orders you're taking and the backlog you're clearing, any comments on what pricing may look like next year? Because it seems like you're going to get double-digit pricing this year. Should double-digit pricing sustain at least through the first half of next year as we run through the backlog?

Jim Umpleby

Yes. So again, as we think about any pricing actions for next year, obviously, we always are focused on maintaining our competitive position in the market and we think about that in terms of any future pricing decisions.

Andrew Bonfield

As regards the run rate, obviously, just to highlight, we're not talking about 2023 yet, but just think about the fourth quarter. We are actually lapping some price increases that we saw in the fourth quarter of last year. So we will see slight moderation of price in the fourth quarter, still very strong. Obviously, that will help us as we move into 2023. But obviously, as Jim said, we're not yet into that situation where we have a plan that we can give you. And obviously, competitive positioning is obviously critical as part of that.

Tami Zakaria

Thank you.

Jim Umpleby

You bet. Thank you. And thanks all of you for your questions. Just I want to one more time thank our global team for performing very well in a challenging environment, increasing sales by 21%. As we mentioned, our backlog and sales to users increased, which are positive demand indicators as we look ahead. Adjusted operating profit margins improved by 280 basis points. We expect a strong fourth quarter with sales and margin improvement in addition to continued strong cash flow. And of course, we remain focused on executing our strategy for long-term profitable growth. Again, thanks to all of you.

Ryan Fiedler

Great. Thank you, Jim, Andrew and everyone who joined us today. A replay of our call will be available online later this morning. We'll also post a transcript on our Investor Relations website as soon as it's available. You'll also find a third-quarter results video with our CFO and an SEC filing with our sales to users data. Click on investors.caterpillar.com and then click on Financials to view those materials.

If you have any questions, please reach out to Rob or me. The Investor Relations general phone number is (309) 675-4549. We hope you enjoy the rest of your day.

And now I'll turn it back to Emma to conclude the call.

Operator

This concludes today's conference call. Thank you for attending. You may now disconnect.