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# EDITED TRANSCRIPT

ADI.OQ - Analog Devices Inc at Citi Global TMT Conference

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## CORPORATE PARTICIPANTS

**Michael Lucarelli** *Analog Devices Inc - Vice President - Investor Relations and FP&A*

## CONFERENCE CALL PARTICIPANTS

**Christopher Danely** *Citi - Analyst*

## PRESENTATION

**Christopher Danely** - *Citi - Analyst*

Everyone, I'm Chris Danely, your friendly neighborhood semiconductor analyst here. It's our pleasure next to have one of our topics, Analog Devices. The normally scheduled program of Vivek, the VP of Ops, is not here today. So being as it's baseball season, we've got the best pinch header in semis, a (inaudible) of Mike Lucarelli. VP of Finance, IR, FP&A, probably more alphabet soup behind the name.

Something about Vivek's brakes went out unexpectedly today, and you were the only one that could step in. I don't know how that happened.

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**Michael Lucarelli** - *Analog Devices Inc - Vice President - Investor Relations and FP&A*

Desperate time, desperate measures.

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**Christopher Danely** - *Citi - Analyst*

Yes. Here is Mike. And as it always is, this is meant to be interactive. So if anyone has a question, feel free to raise your hand or throw something at us, somehow get our attention.

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## QUESTIONS AND ANSWERS

**Christopher Danely** - *Citi - Analyst*

I guess just to kick it off, Mike, we've had a few analog companies here so far. You guys are one of the most recent companies to report. You guided up, I think, for the second consecutive quarter, sequentially. Other analog companies are still seeing the revenue down. What do you think is separating the basic business?

Because I know you study all of your competitors. What do you think is sort of separating ADI from the rest of the folks that are not seeing as good of business conditions as you are?

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**Michael Lucarelli** - *Analog Devices Inc - Vice President - Investor Relations and FP&A*

That's a good question. I think what you're seeing is (inaudible) business about a year ago, we really worked hard to normalize our lead times getting back to 13 weeks. So we got our lead times back at 13 weeks about a year ago, which started the process of inventory digestion at our customers, about a year ago. I think we started that process sooner, could normalized lead times.

Two, we've been very actively undershipping the channel for the past 2, 3 quarters to bring down the channel inventory, which were too high. They're above 8 weeks, now it's back to 7. We've normalized that.

And three, if you look at our business, our business is not the same. I mean, -- we're an analog company that's other analog companies, but we have different exposure than a lot of our peers, especially in the industrial market.

If you look at our industrial business, we have a big instrumentation business, which is about 30% of revenue, and aerospace and defense like 20%. And part of instrumentation, that relates to AI like ATE, is seeing demand and aerospace and defense is also seeing good demand.

So there's some demand, there's some timing to it. And basically, let's get through that inventory digestion, I think, faster than our peers and then layer on top, different exposures of our business.

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**Christopher Danely** - Citi - Analyst

Yes, the different mix. How would you characterize your overall visibility now versus, say, three months ago? Better or worse, somewhere in between?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

I'd say visibility. So visibility is dictated by lead times. Our lead times haven't moved. They're about 13 weeks. 13 weeks give us about 1/4 of visibility, no different than a quarter ago.

Now way back when the lead times were long, we had better visibility. But when lead times are long, that visibility, you never know if it's good or bad when you get there. So (inaudible) visibility is good, but short. We think 13 weeks visibility.

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**Christopher Danely** - Citi - Analyst

Yes. Okay. I had a number of people tell me to start off with the automotive question. So we'll just get that out of the way. Maybe start with your sort of views of the underlying demand trends in the automotive industry.

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

So I think -- so what's going better or worse for us versus the peers. If you look at our auto business, auto definitely got a bit weaker for us than we thought a quarter ago. And you saw it in our outlook, we actually guided auto down. I think 90 days ago, most (inaudible) will be flat to up.

So what really changed the automotive market was halfway through the quarter, demand just got really weak broadly across automotive. It wasn't one geography or one sector of auto is weaker. We did see it get weaker over the summer.

Now the good news is it did pick back up from that low, I would say, from an order standpoint, but that's the good news. The bad news is it's still below where it was over a quarter ago.

So overall, auto, I think it's a mixed bag. I don't think it's falling off a cliff. It's definitely softer than it was 90 days ago, and it's kind of broad-based across all applications of auto.

And then if you look at our business in auto, I think it's important to point out, we -- about half of our business will be called as a production base. Things that really more volatile with SAR or production. And the other half of the business is content growth drivers like BMS, GMSL. GMSL connects radars and cameras and cars, power management around those radar systems and A to B with next microphones.

That other half, that 50% is still growing year-over-year. The production part is down over 20% year-over-year. So you're seeing different dynamics in our business. So the peak to trough of auto is a lot shallower because you have this content stuff that's still going on and some inventory digested on the other side.

So net-net, yes, auto got softer. I don't think it's that bad. It probably takes a quarter or 2 to kind of built it through all that digestion. But I think as you enter '25, I think we're in a good position both in auto and the rest of our markets have a good growth year.

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**Christopher Danely** - Citi - Analyst

And would you say either of those 2 parts of the business correspond more with ICE or EVs? Or is it basically everything?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

It's every -- so good question. BMS is all EV. So BMS manages the electric vehicle battery. That business has been weaker this year, not surprised. I think you've seen a lot of EV announcements, not a lot of purchasing of EVs, and also a mix around hybrid TVs.

We are the leader in BMS. We have the highest market share out there. So you've seen that business modulate for now 2, 3 quarters. And our view was it got better in the second half of this year on the BMS side, it didn't, except China.

So China actually improved for us sequentially, but the rest of the world was not. And that's not a share comment. That's just overall inventory digestion on EVs. So that BMS business really correlates to EVs.

The other parts of our business related to high-end vehicles. High-end vehicle has more radar, more cameras, more microphones, more speakers. Those doesn't matter if EV or an ICE car. If it's a high content vehicle, like ones you drive, Chris, that's what it correlates to.

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**Christopher Danely** - Citi - Analyst

I'm all about content, my Toyota Tacoma.

And so I guess let's start from the beginning of the year. Because I know Vince talked about this on the call that you saw bookings increase I guess, in auto, and then they fell off and they stabilize and they fall off again and now they're better. Is that how it's gone? Or I'm just trying to how the year has gone in auto.

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Auto? Yes, auto, let's talk about auto. Start of the year, every market, including auto, up into the right, bookings good, demand good. Even the start last quarter for us, so kind of the May time frame, auto good. In the summer, you saw bookings fall in auto a bit, summer time frame, call it, June, July.

Now since that time, they fell and now that they came back up, just as they bounced off the bottom, but they're still below where they were started in the quarter. So positive side is they're not still falling, and they're not flatlining at a low rate. They actually picked up. On the negative side, you could say they're below where they were to start the quarter.

But that's why I think net-net, it's not that bad. It is softer than it was 90 days ago in automotive market. So start of the year, auto, the first 6 months, it looks like the rest of our business up and to the right, saw some choppiness over the summer.

Now some investor point out, it could be seasonality. I mean, summer is usually weaker. So that could be some of it. But I do say that it did fall a bit more than we thought in the summer. So we'll see how it goes from here on to see that will dictate what 1Q and 2Q is.

But from a positive standpoint, it has gotten better. So we'll see if that trend continues.

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**Christopher Danely** - Citi - Analyst

And do you think the reason that the bookings from the auto space fell off again. Was that just because demand took a downtick? Or was there some excess inventory out there, a little bit of both? Or...

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

I'll stick to reference. I think demand took a downtick and therefore there's (inaudible) inventory. And it didn't -- only fell once. So you keep in again, it fell in the summer time frame in June, and it bounced back since then. And I would call it more demand-driven resulting in inventory reduction.

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**Christopher Danely** - Citi - Analyst

Got it. And then what are the customers telling you guys from the automotive side? Do they feel like their demand is stabilized? Are they nervous? They feel good?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Mixed. It's a very mixed bag. And even by OEMs versus Tier 1s, some say inventory is good, some say it's too high. It's a very mixed bag across the landscape.

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**Christopher Danely** - Citi - Analyst

Any particular geo or area or anything that's better or worse? Or is it just...

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Europe and North America, Europe and North America are weaker than the rest of the world.

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**Christopher Danely** - Citi - Analyst

Got it. And you said you expect 1 or 2 quarters for the inventory normalize?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

That's what it feels like this. I mean we'll see, it could be sooner. And what I say 1 or 2 is, 1 quarter (inaudible) the fourth quarter. In our first quarter, which will be quarter 2 for that correction. This is an unusual time to see strong demand in auto.

So it feels like you probably have a down quarter, and then we have no visibility to 1Q, but usually it's down, maybe it's down again. We're talking low single-digit decline in share. So not a big drop off.

I think a lot of the worries is you saw industrial went way up and it fell like 35% peak to trough. Right now, I think auto is down, call it, 15%, maybe 20% peak to trough. That feels kind of like where it's going to end up, and then we start going the growth cadence again for the automotive market.

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**Christopher Danely** - Citi - Analyst

And do you think the issue over the summer was more of an EV problem or an ICE problem or both?

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Both. I think it's both. EVs did not help. But I think overall -- I mean, if you look at IHS, they report it out, they reduce production. If you look at our customers in the Tier 1 space with OEMs, all their earnings report for bad, they all lowered outlooks.

It was a broad-based demand impact, whether it's a traditional combustion engine or an EV. I mean I don't know for sure, but rates are high, people finance cars. It's expensive to buy a car today, therefore is less demand.

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**Christopher Danely** - Citi - Analyst

That makes sense. And then last question on the inventory. Do you think that the excess inventory or where they're burning it off, do you think it's at the lots? Is it in the supply chain? Is it somewhere else?

Is it more components or cars or both or? Any idea?

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Supply chain and components, I would say, more than lots.

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**Christopher Danely** - Citi - Analyst

Got it.

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Lots were [bear]. I mean if you go buy -- I mean, lots were [bear] for a while. I think there's more cars on (inaudible), but I don't think it's too high. I'll call them more at the component Tier 1 level than the actual OEM level. But like I said, it's very mixed, honestly.

So it's tough to call out is precisely where that inventory is and at what makes this semi industry (inaudible).

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**Christopher Danely** - Citi - Analyst

And then our auto analyst has been sort of hammering this point, you think China is going to continue to gain share in EVs, is that good, bad or indifferent to ADI?

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Depends, and what they're replacing. So you're saying trying to gain share globally (inaudible) market?

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**Christopher Danely** - Citi - Analyst

(inaudible) EV makers, yes.

**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

That will be a net positive. We have a very good share of the China OEMs, both on a BMS standpoint for the export market and also on the connectivity side for GMSL.

So what I say it could be indifferent is if they're shipping the car, (inaudible) car into Europe and is taking share from another company we have share at, it could be net neutral. So -- but we do have good share there. So if they're taking share from something we don't have good content is net positive.

So we'll see. But it is fair to say we have a very good presence at those OEMs in China that are moving more to a global production model.

**Christopher Danely** - Citi - Analyst

Okay. And then some time ago, some crazy analysts out there, I forgot his name, rhymes with (inaudible) or something like that. I talked about you guys losing a design win internally at a Chinese automotive production company, but we haven't heard about anything since. So maybe just address that. Do you expect this to continue?

Did it stop somehow questions on...

**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Yes. So there was the biggest guy in China look to in-source more of their own chips. It wasn't an ADI issue. They chose their own chip versus any other supplier, whether it's ADI, TI, NXP. They want to be more China indigenous for those cars.

We saw that with -- it's in our numbers last year, we got hurt by some of that. I can't say we didn't. Why? Because we had high share and it went down. That stabilized, and we actually have gained back share, added OEM as well.

So it's hard to do what we do. And if you want the best performance, whether it's BMS GMSL or converter, you name it, you choose ADI. If that customer solve or something else like geopolitics, they might choose someone else.

I think that's what you're seeing in that market to your auto question and why would that customer go internal. They're not choosing performance then, they're choosing something else. Our first BMS chip was launched back in linear 2010. We're in year 14. Competition is not year 14 in that market.

So inherently, they don't have good performance as we have.

**Christopher Danely** - Citi - Analyst

How do you see your China business growing long term versus other geos? And has that growth estimate changed at all over the last few years?

**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Good question. So China, historically speaking, was one of the fastest growth markets, I would say that. Our view going forward is still a growth market, but we're unsure if it's the fastest growth market going forward.

Now there's 2 dynamics at play. The GDP of China used to be 10%, now it's 5%. So that's slower growth. And two, over time, China will try to do more stuff locally, which probably trims some growth.

But our view is if China wants the best performance, they'll choose ADI. If they're choosing something else, then they'll go for someone else. But it doesn't mean we can't grow in China. And we will grow as you look forward to this year, and China is one of our best growth markets last quarter. So it doesn't allow a lot of nerves around the China digitization.

So far, it's been more worries than actual impact in our revenue. Yes, it was inventory correction, but that was an inventory correction, not a share loss. And if you look at our China business, what we track is design win. Design win momentum in China is up the past 3 years. That portends to a good, at least growth in the next few years as well.

So yes, there's an existential threat out there that at some point, they'll take some more local. But in the near midterm, it doesn't feel like that's happening. So I would say, yes, we're cognizant of it. We see it. Our goal is to design the best chips, and they want the best performers, they chose ADI.

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**Christopher Danely** - Citi - Analyst

Yes. Great. All right. Better news. Let's talk about industrial.

It sounds like we're well past the bottom, past the bottom. Maybe just give us some signs on what you're seeing there. And I know you gave some nice delineation on the various flavors or verticals of industrial that are bouncing back quicker than others. Can you just give us the spreadsheet, the matrix there?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Yes, sure. It's hard. I (inaudible) my hand and I have a broken hands, it's hard to (inaudible) on my hand.

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**Christopher Danely** - Citi - Analyst

You want to borrow mine?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

No, we're good.

So if you look at industrial, the biggest part of industrial instrumentation and test, 30%; automation is about 25%; aerospace and defense about 20%; health care about 15%; and energy, high single [7% to 8%] and then there's probably a remainder of just other. That's the breakdown, the spreadsheet of industrial.

If you look at the pieces and what we're seeing in each market today is your question, automation is the weak spot. That's easy. Automation is the only segment that was down sequentially in 3Q, and we'll see what happens in 4Q. How about that?

It could be up, let's call it, flattish, maybe up. Automation is definitely lagging in this recovery. And the question is why. I think what you're seeing is companies have a lot of plans to build new factories and these new factories have a lot of more automation and more content for ADI. But they're not deploying that CapEx to build the factory yet because demand is weaker...

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**Christopher Danely** - Citi - Analyst

Less than some of the others?



**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

No. Automation is down a bunch. So automation for ADI will be a long-term growth driver. It's just in this low period right now, because if a company wants to build a new factory and they want to make a sovereign supply chain in U.S., Europe, it's expensive to build those factories.

So what do you do? Robotics. Robotics means more content for ADI. Fixed arm robot, \$100; a mobile robot, \$300, \$500; a humanoid, [\$1,000]. So what you're going to see is more content per factory.

But right now, you're in this inventory digestion and no one's really building factories with not much CapEx outlay, that's impacting the automation business. That's the weakest part for us. So that's the bad -- sort of the bad.

Let's go the good. On the instrumentation and test side, there's 3 pieces of that. Automated test equipment, ATE, there is electronic test and measurement and scientific instruments. The last 2, ETM and scientific instruments, I'll call it, normalized, meaning they're not burning inventory, but not much demand in those areas. Think of customers like [Keysight, Agilent, ThermoFisher] in those areas.

The ATE portion, think of like [Avantas, Teradyne] those customers, that demand is strong. Why? We ship into the guys who test high-bandwidth memory and also test SOCs and GPUs. So good demand in that ATE vertical within instrumentation.

Aerospace and Defense, I think we're only going to in detail why that's good demand. The world is, unfortunately, a more unsafe place. Demand is quite strong in aerospace and defense for us.

Energy actually came down. Energy is starting to grow again. Now it's a small part of our industrial business. But I think if you had to ask me one area I'm most excited about in the industrial business for us is energy. Why?

Energy consumption has not grown in decades. Now you have everyone wants an EV, electric cars, AI systems. It's all driving energy use up, means you need a new grid. A new grid means monitor, control and storage, all things ADI does.

So I think you'll hear us more talk about energy going forward than we used to because it's a new demand driver for that market. Now it is small. So we move the needle on growth, but it is a new growth driver for our business than 2 years ago when we outlined our Investor Day.

And the last one is health care. Health care actually is a bit weaker than I thought it would be at this point. It's bottom-mount it's starting to grow. We haven't seen much demand in the health care market. I think there it is.

It's more a broad market business, and we're just seeing digestive inventory at our customers.

**Christopher Danely** - Citi - Analyst

Okay. Take us through the last couple of quarters, this quarter and then the previous quarter of industrial sequential growth, and do you see it continuing to accelerate? Do you think this is inventory replenishment? Do you think that demand is better, like what's driving the better industrial business?

**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

So on the industrial side, what we've been doing is reducing (inaudible) inventory, and we're done reducing (inaudible) inventory. So because we're not reducing anymore, that's helping the growth rate because you're normalizing the shipments in the channel and all the channel to net zero. Before a quarter ago, it was down tens of millions and 2 quarters ago, down over \$100 million. So that's helping the growth status of industrial.

I think what you're seeing is things have normalized now and you're kind of handing off from inventory digestion and channel reduction into more normalized demand. I don't think inventory replenishment yet. And I think we talked about it on the earnings call, our 1Q [production] is usually seasonally down. We don't have any visibility yet today, but it feels like it's probably where it's going to be.

So [bombs] in, I feel good about that. We had 2 growth quarters. 1Q is normally down. I think it's a normal quarter, and then we'll see how it goes from there. But at some point, that industrial business is going to have a snapback.

And one thing to add is if you look at our industrial business, ADI plus [Maxim] pre-COVID. So give it the COVID noise for a second. Look at '18 and '19, we did about \$1 billion a quarter or \$4 billion a year in industrial. This year, so 5 years later, we're going to do just over \$4 billion. Industrial is not a flat market for us.

It should grow at least 5%. So if you think about that \$4 billion and you just draw a line and grow at 5%, you're shipping \$250 million or a quarter or \$1 billion a year below trend line.

So at some point, once that the digestion stops, which is something that stopped, and demand picks up, you're going to start seeing us grow faster than the industrial market. Now the multibillion-dollar question is when will we see that?

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**Christopher Danely** - Citi - Analyst

Right now, all right?

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

I wish. I'll say sometime in '25.

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**Christopher Danely** - Citi - Analyst

Okay. And then you guys guided to industrial to grow, I think, high singles, [sequentially] this quarter. and it grew mid-single last quarter. So if it's above seasonality for these 2 quarters, why would it go back to normal seasonality for next quarter?

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Because the channel helped that growth. The reduction of -- the less reduction in channel helps some of that growth.

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**Christopher Danely** - Citi - Analyst

Got it. Okay. And then let's skip over to the comm market. So most folks out there seem to be calling for a bottom, seeing their business bottom, bottoming now, picking up definitely not getting worse. What are your thoughts there?

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

The comms you said? Yes, I agree. So in communications for us, it used to be 55% wireless, 45% wired. Over the past 2 years, flipped. It's like 55% wired, 45% wireless now for us.

On the wireless side, it has been -- I mean everyone here, I think, has heard 5G a million times but now no one was top of 5G. It's kind of washed out.

The good news is it's not going down. It actually increased for the first time for us in probably 2 years, the wireless piece. Going forward, it probably -- there's still not much demand on the 5G side. I would feel like the inventory burn is done. At some point, (inaudible) a little bit in '25, but the demand for 5G feels very muted going into next year.

The wireline or wired side we call it, there grew a lot more for us last quarter, and it should grow again for us in 4Q. And even in '25 there, there's a lot of inventory out there. I mean you got some customers go way up and way down in that (inaudible).

That also, we've been shipping well below demand on the wired side for probably 3 or 4 quarters now. And at the same time, you're seeing more demand on the AI side. So we ship into data center for connectivity and power and there is more demand in those areas. And now that the inventory correction is done, you're starting to see that demand actually drive revenue growth. And that started last quarter will be again in 4Q and through next year.

So comms next year, I think, has a decent year. Wireless, okay, but wires have a good growth year for our business.

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**Christopher Danely** - Citi - Analyst

And if you look at the overall comp space, I think you guys guided up slightly sequentially this quarter.

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Flattish.

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**Christopher Danely** - Citi - Analyst

Yes, flattish?

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Give room on both sides.

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**Christopher Danely** - Citi - Analyst

Got it. Equal opportunity. And how was it last quarter?

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

It was up a bunch last quarter. So what we saw last quarter, it was up close to 10% sequentially. The reason why -- if you look at our comp business, we have a lot of pull for a lot of stuff (inaudible) AI systems. And I don't know if it repeats again.

So I took the conservative saying, I think it's not going to repeat again, it's about flattish, but it could. So comms could surprise the upside, but I'm not going to build in our outlook, something I saw those kind of lumpy last quarter. But the good news is it lumped up for the first time in a long time, and that really related more on the wireline side.

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**Christopher Danely** - Citi - Analyst

And then maybe take us through the linearity of bookings was the book-to-bill. I think the book bill is above 1.

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Auto brought it down.

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**Christopher Danely** - Citi - Analyst

I mean for com.

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

For com, yes, it was fair.

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**Christopher Danely** - Citi - Analyst

Great. Yes. And then just to quickly touch on the consumer side, that seems like we're back to normal seasonality?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Consumer side, I'll say it's normal seasonality, and we actually do a little better than that. I mean usually go up (inaudible) [15%]. We talked on the earnings call about new design wins ramping up, call it, key customers in the consumer space. It's not one customer, it's multiple customers and multiple applications that's helping drive above seasonal growth here in 3Q, actually to our double-digit growth sequentially in 4Q for us as well.

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**Christopher Danely** - Citi - Analyst

Okay. So in terms of the broader overall business, getting back to some commentary by your competitors, some are saying pricing is still strong, some are saying pricing is going back to normal, some are saying pricing is terrible. Where does ADI fit on the pricing spectrum?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Pricing is more or less normal.

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**Christopher Danely** - Citi - Analyst

And can you define normal?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Normal for us is -- our goal at Investor Day is at flattish pricing. So you can consider this year close to flat for pricing for us.

I mean we manage our business, different parts of our business have different pricing dynamics, but our goal is to make that pricing minimal impact on our P&L or our gross margin. And that's kind of what we're back to.

I think others had bigger price declines than us. I think what we do is we play a value game. We want to drive innovation. So pricing is less important to our customers in what we deliver.

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**Christopher Danely** - Citi - Analyst

And your pricing is probably a little more stable, up or down versus the...

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Correct.

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**Christopher Danely** - Citi - Analyst

And then how would you expect pricing to trend next year?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

We'll see.

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**Christopher Danely** - Citi - Analyst

Same as normal (inaudible) normal?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

I think it'll be similar to what it was in '24. Again, those conversations are just starting now. (inaudible) trying to get too ahead of it. But our goal and the way we drive our business is to deliver value, sell the value, pricing, the last thing we discussed, the goal to keep it about flat.

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**Christopher Danely** - Citi - Analyst

Okay. And then how does that correspond with what's going on at the (inaudible)? You mentioned inventory going up, going down. How do you see your inventory positioning at (inaudible) right now or just the inventory overall...

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

This inventory is actually very lean. So if you go back beginning of the year, we (inaudible) go back a second. Our target model of [disty] is 7 to 8 weeks. We were north of 8. Not north, and I would call it, 8.5 weeks.

As of this quarter, we're down to 7 at the low end.

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**Christopher Danely** - Citi - Analyst

Yes. North of 8.5 was coming into the year, right?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Yes. So we brought it down quickly, and we like to stay in that 7 to 8 weeks. So as you go forward from here, our goal is to match supply demand. Well, we ship in, what shipped out, net zero.

If demand picks back up, we want to keep it in 7 weeks, so we'll have to start shipping more in if demand gets better. But that's an if statement that won't impact our 4Q, maybe (inaudible) [1] we'll see how it transpires. But our North Star is to keep inventory in that 7 to 8 weeks.

7 to 8 weeks allows them to meet demand and not have a big cycle on our side. Yes, it got above it, but I mean demand fell so fast in industrial, the fact that we got to 8.5 weeks is kudos to the team to really managing that to then go up to 10 weeks.

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**Christopher Danely** - Citi - Analyst

Okay. And then in terms of your own outlook or the overall ADI outlook on 2025 for a calendar year, conceptually, generically, however, (inaudible) or specific you want to get? What is ADI like most excited about, most worried about?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

So I don't want to do calendars go as fiscal, but I mean a similar answer. I think if you look at next year, early view, knowing I'll be wrong, maybe high, maybe low, don't know. Industrial and consumer probably the 2 strongest markets for us and auto and comps still grow, but to a less degree.

Now that's an early look here in, what, September. I'm not sure I did it last year, but I think I blamed (inaudible) if we were wrong. I can't blame anyone except myself. I'm wrong...

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**Christopher Danely** - Citi - Analyst

Blame [Rich], blame me. All right. And then circling back to your own inventory and utilization rates, what's inventory now in terms of days? What's the goal? And then what are we thinking on utilization rates these days?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

So we brought our inventory down by about \$300 million from the peak. So I peaked out, I think fourth quarter last year. Since then, we brought down about \$300 million. Days are still elevated, but they're about [170, 175], which is a bit higher than we like, but revenue is very low.

Our view is now inventories normalize in our balance sheet, we'll grow into those days, meaning that revenue grows, days will start falling. We don't have a specific target, but [170] is too high, and I would say [120, 130], the old mile is too low. So split those 2, you're probably not too far off.

So that means utilizations have bottomed last quarter and they're starting to pick up here a little bit as you go into the back half of this year. So gross margins at bottom, revenues bottom and operating margins at bottom. So we've turned that corner. Now it's the shape of that corner and the upturn, still unknown.

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**Christopher Danely** - Citi - Analyst

Will you say that -- or would you say that your utilization rates will reflect demand? So if a quarter is up, then utilization would go up if the quarter is down, it would go down? Or will you have more of a smoothing effect?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Is more or less smoother than that. So typically, 1Q utilization rate usually [down] because we do maintenance around the holidays. That's just normal maintenance we do. We didn't do it during COVID because you need all utilization in all the products that you get.

So usually, utilization is flat to down in 1Q because of that week of maintenance. But you're right to think, utilization is more or less track demand now because we've done burning inventory. But we do have some -- a lot of inventory still, so what's going to happen is, even though demand picked back up, utilizations won't ramp as fast as you might think because inventory is still 170 days. But you're right to think it will go up as demand comes back up.

And the last question I get from investors is, when can we get that 70% floor that you blue passed on the way down? To think about that 70% floor, we need at least \$2.7 billion of revenue. I think we get there some time in '25, but it feels like the first half of the year might not be above that, we'll see. But just how to think about it, what is the fall-through of gross margins and when you get back to 70%, \$2.7 billion plus is probably a good number to kind of put in the back of your head.

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**Christopher Danely** - Citi - Analyst

All right. And then does mix or pricing have anything to do in terms of the...

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Good question. On pricing, no. I mean pricing is, I'll call it, we made pricing gross margin neutral is not accretive or dilutive to margins. So mix well, if industrial doesn't come back, industrial drives our gross margin, drives internal factory utilization, and it's also a good gross margin business for us.

So if industrial lags, I don't think it lets say it does lag, that [2.7] might be a hard threshold to get there. But I think industrial will be one of the leaders coming out of this, given it fell over 30% this year.

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**Christopher Danely** - Citi - Analyst

Maybe rank the gross margin drivers going forward generically, top 3, top 4. How would you rank them?

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Product portfolio drives a lot of it. So the innovation we bring to the market and ASPs of those products to drive gross margins. That's number one. But from here, it's mix and utilization.

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**Christopher Danely** - Citi - Analyst

Utilization more than mix or mix more than utilization?

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**Michael Lucrelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

They're very similar.

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**Christopher Danely** - Citi - Analyst

Okay.

**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

They're very similar. And if you look at peak to trough for us, were 74% trough [67], half that decline is utilization, half the decline is mix. So it will be similar in the way up if the ramp is similar to the decline.

So really, pricing is not a gross margin drag for us or accretive. We don't want pricing to be gross margin accretive. We want our ASPs and innovation we bring and the value we charge our customers to drive gross margins, and then it modulates around that based on mix and utilizations.

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**Christopher Danely** - Citi - Analyst

Okay. And then you mentioned something earlier about your inventory goal is to be [120, 130]. Now it's [170]. It's going to be higher than [120, 130]. We've heard other analog companies talk about their inventory goals being a little higher than they used to be.

Why is that?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

So good question. So what we learned in the downturn is we can hold more on our balance sheet less in the channel and keep that inventory on our balance sheet at (inaudible) bank. It's cheap to hold, you don't reserve it very often either. And it's very quick to turn that (inaudible) bank, goes through the back-end cycle time and turn it into revenue.

So we'll hold more small lots of (inaudible) bank on our balance sheet to respond to fluctuations in demand (inaudible). I think that's for ADI. I don't know others, but that's probably some sentiment around that across most companies.

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**Christopher Danely** - Citi - Analyst

The same thing. And no increased risk associated with the higher inventory?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

So no, minimal. I'll say very minimally because when you keep it at (inaudible) bank, it's fungible across different markets and different customers. Where you're getting trouble in inventories, if you move that (inaudible) bank into finished goods, then there's more risk associated with it.

So keep it at (inaudible) bank, such that you can send it to different customers, different markets and where demand is. So that's why we keep it there because of the risk associated -- or very low risk association with that (inaudible) bank.

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**Christopher Danely** - Citi - Analyst

Okay. And then just one more on gross margin, a bit of a longer-term question. And your gross margins get back to the previous peak? And if so, what would it take to get there?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

To get to 74% again, it's possible, but it will be challenging. And why will it be challenging? If we looked at when we hit 74% last time, Industrial was a record mix, 53% and utilizations were 95% plus. Normal utilization for us is [85, 90]. So mix utilization dependent, make it [74] challenge.



And I'd say it's impossible, but to think [72] -- the reason we should get back to 72%, 73% gross margin. I do think we can get operating margins back to the upper 40s, 50% again from a leverage standpoint, as you grow back into the model.

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**Christopher Danely** - Citi - Analyst

So if we did get that back to that mix of industrial, and that 95% utilization, would you get back to 74% gross margin or would be something...

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

(inaudible) the question, but we need a higher revenue base. Could we have more capacity today than we had, we hit it last time.

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**Christopher Danely** - Citi - Analyst

Okay.

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

So you need more revenue than you did them because if you think about it, we did -- I think we were at \$12 billion of revenue. We added capacity since then, so we need more revenue to fill that utilization get up there.

But to your point, if utilization gets back toward it was and mix goes back where it was, there's no reason why we can't get there again.

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**Christopher Danely** - Citi - Analyst

Great. And then how does it work with [foundry]? Couldn't you have less reliance on foundry, take more internal and increase utilization rates that way? Maybe just give us a refresher course on what the split between foundry and...

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

So we're about 50% internal, 50% external from that standpoint. And we have swing capacity, meaning we can build this product at a foundry or internal ADI. And what we've been doing during the downturn is bring more in-house. Our utilization will be lower than they are if we didn't have that swing capability.

But really, we like that a hybrid model because it gives us flexibility of where we build our products, gives us flexibility around what process technologies we can use, and it gives our customers flexibility to -- if they -- what kind of -- do they want supply from U.S., Europe, Asia, we have that ability to.

So customer and resiliency, optionality in the financial model is why we like the hybrid model, and we'll invest in the hybrid model, we are. We put a lot of more capital in the ground in the past couple of years on the CapEx side to enhance that model, and we work more with our foundry partners to increase exposure to other areas outside of Taiwan. We announced a quarter or 2 ago about using [TSMC] Japan.

So you're seeing us really reinforce our hybrid model over the past couple of years, and we'll continue to do so as we go forward.

**Christopher Danely** - Citi - Analyst

Okay. I have a couple more questions on that, but getting towards the end, I would be remiss if I didn't throw it out to the audience in case anyone has a question out there. Going once, going twice, probably, we'll feel free to keep flat with my gums up here. Usual.

Okay. So why not have a 300-millimeter fab, especially given how big you are and you're about to buy [microchip].

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Untrue. Chris...

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**Christopher Danely** - Citi - Analyst

I'm kidding.

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Chris is (inaudible). You're done. Nice to know you, Chris. Good conference. Next year, I'll see someone else here.

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**Christopher Danely** - Citi - Analyst

I'll be washing dishes in the back.

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

There you go. Make more money that way now.

The -- lost my train of thought. Oh, 300 millimeter. So why? Because we pick up the phone and call Texas and use one of theirs. No.

Just kidding.

So why would -- we don't have the volume. We are value-based. We don't have the volume to fill those fabs. If you look at our business, we're a 90-nanometer and larger node company, 90 135, 180, as we do internally. That's like 90% of revenue is those nodes.

Sub that, (inaudible) makes more sense, we're talking 10% of our revenue. To fill a fab and make it productive, we need more revenue than that.

So from the standpoint of can we do it? Sure. We don't need to do it. And everybody thought we need to do it, we would. But we have the capacity in place for very strong revenue growth in the next 5 years.

And we look at it every year to see it doesn't make logical sense to do it. And I think it really comes down to our goal is not to ship more chips, it's to ship more value per chip. So we're not counting chips, recounting dollars per chip, and that's how we make our business.

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**Christopher Danely** - Citi - Analyst

Do you see your foundry mix continuing to increase over the next 5 or 10 years?

**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

No. I think it stays stable around 50% plus/minus. I think maybe if you look at the next internal go up a little bit, but I'm talking we're like [45, 50], maybe about [50 to 55] internal.

And then really -- we don't say this is internal, this is external. We say, 180 and above, we have capacity for that, and we'll fill that out. If we have too much demand, it goes external. Below that, it goes external all the time.

So we don't really say we want this. We don't target a percent, we target the nodes, and the mix is dictated by the nodes. That makes sense?

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**Christopher Danely** - Citi - Analyst

Yes. Does your foundry business in general carry higher or lower margins than the internal business? Or is there pretty much node?

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

It's market -- there is more -- it's minimal difference between the 2. And basically comes down to, if you have the sunk capital, the filling up of internal fab is more productive. But if you add a fab or add capital, it's very cost-intensive until you hit a certain threshold.

So for us, like-for-like, we don't really care if make an internal, external (inaudible) drive good margin for us, and the margin really comes down to what business is it selling into more than anything.

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**Christopher Danely** - Citi - Analyst

Got it. Okay. I did get a couple of people wanting me to ask you about CHIPS Act. So when do you think you will start to get the money, talk about the tax credit when that impacts? What are we going to see some...

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

I work back to ITC (inaudible), we get on everything we spent the past year or so. It's on our balance sheet. I want to say we've accrued \$300 million for ITC credit. That's already impacting the P&L minimally, meaning when you put the equipment in place, the cost of that equipment is 25% less than it would have been therefore the depreciation over 10 years is less. And again, that's a minimal impact you're seeing there.

We'll keep accruing more ITC as our -- given our CapEx spend.

On the grant side, we apply to Europe and U.S., we're still waiting to hear. It's a long process, and I can't do a time line on when do you think we'll hear.

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**Christopher Danely** - Citi - Analyst

Got it.

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**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

But I would say, our numbers won't be as big as others. We didn't spend as much as others. We went in, our goal is to reinforce our hybrid model, not build out a big footprint of internal capacity with the chip at money.

**Christopher Danely** - Citi - Analyst

Okay. And then last question, you guys continue to generate a ton of cash. Nice dividend, goes up every year, knock on wood. Your buyback has been pretty steady. As this cash continues to build, what is the use of that?

Just continue to go dividend, buyback equal, something else out there?

**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

That's pretty much it, dividend buyback equal. And you're right. If you look at our CapEx, our CapEx is coming down. I mean we did \$1.1 billion a year ago. This year, \$700 million, you look to next year, dollars in CapEx will be down again next year (inaudible) [percent] of sales.

So that will help free cash flow.

And you're right. We look at our free cash flow as -- our goal is to grow our dividend 10% through cycle and everything after that, less free cash flow go to buyback. So really, our target is 100% free cash flow return, take it the dividend, the rest goes to buyback with a goal to keep share count flat. And usually, our goal more or less is to take it down over time.

**Christopher Danely** - Citi - Analyst

Great. With that, we're out of time. Thanks, Mike.

**Michael Lucarelli** - Analog Devices Inc - Vice President - Investor Relations and FP&A

Thank you.

**Christopher Danely** - Citi - Analyst

Thanks, everyone.

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