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EDITED TRANSCRIPT

ADI.OQ - Analog Devices Inc at Sanford C Bernstein Strategic Decisions Conference

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OVERVIEW:

Company Summary

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CONFERENCE CALL PARTICIPANTS

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PRESENTATION

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

I guess we'll get started. Good morning, everyone. Thank you for coming. I'm Stacy Rasgon. I cover the U.S. semiconductor sector here at Bernstein. And it's my honor today to introduce our guests, Rich Puccio, the CFO of Analog Devices; and Mike Lucarelli, Head of IR.

Before I start, (Operator Instructions). Now of all companies that I cover, ADI, I think, is one of the most respected. It's got an extremely high-quality franchise in the analog space, particularly as it relates to signal conversion and processing. Over the last decade, so they've embarked on a rationalization program, and they're sort of enjoying the fruits of that now, but they've rationalized their product portfolio, manufacturing footprint. They were smart enough years ago to exit mobile early enough to actually get paid to do it. I think you're one of the only ones that ever managed to do that.

Increasingly focused product offerings and high-value applications, whatever the end market and focus on new end markets, automotive, health care, many, many others. They've not been shy to take advantage of inorganic opportunities to boost the franchising growth potential. And they've now embarked on the regime of significantly more aggressive capital return than what we saw in years past. And to talk about all of this, it gives me a great pleasure to welcome our guest today. Thank you so much for coming to today, guys.

Richard C. Puccio - *Analog Devices, Inc. - Executive VP & CFO*

Thanks for having us, Stacy.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

So this is Rich's first fireside, so I promised to go easy. So maybe just to start, you've been on the job, 3 months, right? I guess...

Richard C. Puccio - *Analog Devices, Inc. - Executive VP & CFO*

Actually, almost 4.

QUESTIONS AND ANSWERS

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Almost 4. Okay. I mean I guess what attracted you to it? And at this point? And I guess, what has surprised you, I guess, either positively or negatively now that you've been in the role for a few months?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So the attraction for me was an opportunity to join a global leader with an incredibly strong franchise that was making what I thought were really interesting strategic moves to move up the stack and to take what is a very powerful Analog franchise, add software and digital and a very strong set of domain expertise to help customers solve their problems.

Having come from a very customer-focused place, the opportunity to come to somewhere that will be just as customer-centric and have the customer intimacy that allows us to build ahead to what customers are going to need in the future. And clearly, what they need are higher-level applications and domain expertise and our strong franchise. That's what attracted me.

What surprised me -- positive surprises, Stacy, when I got to the company was how far the company had gotten in their resiliency plan, right? If you look across the semi space, if you go back, I don't know, you can go back 5 years ago, most people didn't know what a semiconductor was, right? Until they couldn't get a car during the pandemic, and somebody said, well, you can't get a car because of semiconductors. So now everybody knows what the semiconductor is.

So as you think about the supply chain fracture that happened and the challenges, ADI took a pretty aggressive approach. You've seen we've spent a substantially more capital in the last few years than we would have historically to build resilience. And so that resilience has done a couple of things for us. One, it's -- by the end of '25, about 70% of our products will be qualified both for internal and external manufacturing. That was a surprise to me that we've gotten that far.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

70%, you said?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

70%. The other thing that we've done that is super powerful, obviously, there's lots of geopolitical risk and concern about concentrations in Taiwan. We are on a path to diversify the substantial portion of our product will be available or able to manufacture outside of Taiwan.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

How much is in Taiwan now?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So TSMC is our biggest foundry partner. About half of our business is done externally. I would say, over half of that relates to TSMC. But one of the things that's going to help even in that regard is -- and we talked about this on the earnings call, is we are going to have capacity in the new fab that TSMC is building in Japan.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

In Japan?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

In Japan, [and at the] finer lithographies than we have, right, all of our internal capacity is 180-nanometer and above. So those -- that was a positive surprise. The other thing that was positive is I've come from a place where you have to think really long term about what you spend your money on and when you're going to see returns and the company is disciplined.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Do you want to remind our audience, by the way -- I should have...

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Sorry, yes, I spent the prior 3 years as the CFO at AWS. So when you talk about all the abnormal and irrational purchasing behavior by companies, that was us. But when you hear from TSMC that it's a 2 years to get a product and you can't run a data center without it, even though you've already placed a year's worth of orders, you place another year's worth of orders. So I understand that dynamic from the other side. But one of the things I like here is the discipline and the ability to focus on a long-term development.

So one of the things I really liked and it's something we've been highlighting, we just launched or talked about in the earnings call the Sentinel product, which is in our health care space, which is a very powerful innovative tool that opened completely new white space for us.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

That was a 6 to 7 years...

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

6 to 7 years in development. Not a lot of companies are that forward thinking to make an investment that early. So that's a very long answer, a bunch of good reasons why I came to ADI.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Got it. Maybe to like drill in a little bit to that resiliency point. So you talked about fungible capacity. Maybe, not everyone in the audience and whether this is -- these are not all semiconductor investors. They may not be aware of what that actually means. And just to level set you, ADI in general, tends to have gross margins above 70%. They've been running a little lower than that at 67-ish, but revenues have been cut by, I don't know, 40...

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

34% to trough.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Not bad...

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

And to be able to hold 67% versus what we thought when we did our Investor Day in '22, 70% would be the floor. We certainly did not contemplate the size of the inventory correction that could happen. But so I think where you're going is -- so when I talk about this qualifying inside and outside, and you'll hear us use the term, our ability to swing.

The best way to describe that is in times of increasing demand at a pace we weren't expecting. We have outside partners with qualified processes that can make our products in their fabs. The flip side, which is why we've been so resilient on a margin perspective is when demand starts to shrink, or do what it's done for the last year, we're able to pull back those products and manufacturing in our fabs. And why that's important is keeping our utilization levels up in our factories is what allows us to keep the margins where they are. absent that swing capacity, we'd have a lot of underutilized capacity and not to bore you, but accounting stuff, the unutilized capacity is a significant drain against your margins...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Like where would your gross margins be if you didn't have the swing capacity?

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

They'll probably be a couple of points lower, than say, 3 -- probably 3 points lower which would be way off the floor. So that resilience has been important for us and qualifying the -- it also -- as you think about the cost environment, we've incurred a fair amount of capital and expense to be able to build that resilience, but it's super important to our customers because we don't want to be the part that keeps somebody from shipping their million dollar device or their car.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Yes. Yes. I mean maybe to touch on some of that. And again, in this format, I don't like to spend lots of time on the near term, but I do want to...

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Okay...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

I want to talk a little bit about the short term and get through that. But maybe the -- so when you talked about -- like you guys have sort of suggested Q2 is a bottom. And I know in general, in Analog investors seem to be wanting to buy Analog stocks just in general on that bottoming theme.

But maybe talk a little bit about how we got from where we were to where we seem to be in Q2. I guess, what are we seeing by end markets? Because it's been sort of a weird asynchronous cycle where different end markets have sort of been behaving at different points in their cycle, different timing. And I guess, how do we think about the pace and trajectory of that recovery hopefully off of Q2? And then how does that influence some of the decisions that you're making, I guess, as we're going forward from here?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Sure. So do you want me to start with the -- a little bit of the backdrop of what happened?

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Yes, maybe. Yes, maybe...

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So if you think about the way the trough has happened, obviously, significant decrease in our industrial business, right? And industrial for us is our largest franchise. It's also the most profitable franchise. So we've seen the steepest declines there for a very long period here as the decline was happening, automotive held up better than most of our other segments. Clearly, the wireless, in our comms world, the wireless piece has been soft. The 5G rollouts aren't happening...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

That is infrastructure. You guys don't really do a ton of like smartphones and stuff, right?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Smartphones is in our consumer bucket.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Yes. It's not that big, though, right now. Yes.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So this is in our -- in that space, it's the wireline and wireless. And as it turns out, the wireline is doing a bit better, and part of that is where we're helping with the data center connectivity, et cetera. Consumer has been a challenge as well. So -- but what we're starting to see is improvements, and we've had 3 consecutive quarters of increased bookings, cancellations have declined. So we're feeling much better about the trend where we're headed.

And in fact, even if we look at Q2, and if you look at what happens geographically for us, Asia Pac actually grew sequentially. And if I look at China, in particular, China has been our weakest market for a number of years, and China actually grew sequentially. And based on the new wins -- and we talked about some of the new wins on our earnings calls, based on the new wins, we feel like we're getting some pretty good traction, and we'll see growth -- continue to see growth in China despite some of the macro headwinds and some of the indigenous China pressure. So we're seeing those signals.

If you think about the Industrial piece, which is our biggest business, our business is highly correlated with the PMI index. So PMIs have been above 50 for every month, every month in '24. So that gives us some comfort that we're starting to see the return. What we've guided to at the midpoint is about 5% sequential, we haven't. Did guide out to Q4. There's still enough macro uncertainty. And if you think about geopolitical interest rates, any number of factors that could cause a continued dampening, I'm not -- I don't have enough -- we don't have enough and I don't have enough visibility to say that this is going to be a steep recovery.

So I actually -- I think we're reasonably comfortable that 4Q can be sort of low to mid-single digit sequential coming off of Q3. I do think that we will see faster growth and acceleration into '25 as we get fully past the inventory digestion issues. And look, the -- if you look at the curve and Mike been using this as an easy way to explain this, if you look at the historical growth curve for the company, even if you take 5%, right, because the historical business has been pretty close to a GDP growth kind of business. If you look at where we've been relative to that kind of growth rate, we've clearly -- at this point, have undershipped pretty significantly end demand, both in our end customers and in the channel.

So -- and we think we've been under shipping for at least a year. So at this point, we expect that we will start to see sequential growth, and then if we stay on this path in Q3, the signals we've started to see, it's likely we will start to ship to end demand in the fourth quarter.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. So no refill though, at that point. Okay. So, yes.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

And literally, we've spent a substantial amount of time and effort getting our inventory back down into our target levels so...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

You're back in the 7% to 8% range now?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Today, probably at the top of the range. Closer to the 8%, but we will expect to take more inventory out of the channel in 3Q to get us solidly in the middle of the 7% to 8% range, which is where we'd like to be. And I said, if we stay on that track and are seeing ourselves achieve that, then we'll be able to ship to end demand in the fourth quarter.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Okay. Got it. That's all in the short term. (inaudible). What are some of like the broader like -- I always say, like for Analog's side, for me, it's sometimes I feel like it's hard to build a differentiated perspective on growth because I mean it's -- you always think about it -- if you sell 100,000 different things to 100,000 different customers, and how do you get a handle on that?

I was like, ADI though, it's maybe a little more easier, at least to articulated growth narrative. You do seem to be investing and involved in a lot of the other like higher growth areas, you mentioned some health care. Vince has talked about [aero] and defense and space and now certainly EVs and AI, I'd be remiss if we don't talk about AI. But I guess, what are some of the opportunities that you guys are most excited about and where you're putting more of your investment dollars these days. And then I think we can drill into some of them.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Sure, I'll start, and then I'm sure Mike will add some details for me. Certainly, one of the ones I'm super excited about is the health care opportunity because I think...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

You mentioned Sentinel, what is that?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So Sentinel is actually a wearable patch that monitors vital signs, and it's -- doctors will use it to help patients with congestive heart failure. And so it's super powerful because it does -- it's not a surgical implant, which most of the devices that do that. And it is tied to a monitoring solution. You

put the patch on for some number of minutes every day to get measurements and then the algorithms that we've worked with doctors and hospitals to build give feedback to the doctors because ultimately, congestive heart failure is the single most expensive chronic disease, particularly in the United States.

The goal here is to keep patients out of the hospital, because that's where the costs incurred and to give better care and this device helps do both. And it is a great [melding] of the sensing, the software algorithms and the scientific knowledge. That one is super powerful. It's a \$5 billion TAM. So that's what I'm super excited about. Obviously, I like what we're doing in aerospace and defense clearly, with all of the things going on in the world, that's an area where not just in the U.S., everywhere else in the world, they're [buffing up] their spending on military and aerospace. So that's a great opportunity.

You mentioned AI, so I'll go there. There's sort of -- we think about it in 2 phase -- sort of 2 stages. This first stage is the infrastructure stage, which all of you are hearing about, hyperscalers are spending hundreds of billions of dollars building data centers. There's huge opportunities there for us.

And 2 big opportunities to highlight. The first is if you talk to anybody in the space, one of the broader concerns for the hyperscalers and probably for everybody at this point is power. Power is going to be a constraint. And so anything that can be done to help make the hyperscalers and their data centers more power efficient is a big win. So we've got a win in with one of the hyperscalers on a vertical power solution. And that vertical power solution can reduce about 30 -- up to 35% of the power loss in running those chips in the data center. So that's a super powerful win, and we're getting traction with all of the hyperscalers. That's one.

The other thing is all of these things are being built, the high-performance compute and the high-bandwidth memory require much more intense testing. And we are shipping high-value solutions into the tester space to allow them to test faster test more channels. So 2 really powerful opportunities.

Then if you think out longer term, and this is where the compounding effect happens for us is as you think about AI at the edge. So getting compute and AI out into the physical edge is going to be super powerful because -- I use an example, I like this one. I'm a simple guy. This is a simple example. When you think about noise cancellation. And I don't just mean the Bose that you wear on your headphones when you're in plane, it could be hearing aids. Sound is very variable. We're shipping product today and developing products that have neural nets built into the devices that allows the algorithms to do the work to sort the sound to do the noise cancellation, super powerful, super effective.

Another good example I like is you think about factory automation, which is one of the big trends, it's going to be a big driver for us on the industrial side. When you think about the robotics, the robotics that are in automated factories. Well, if you can get compute at the edge and everybody today is talking about large language models. (inaudible) ChatGPT, it's all the large language models. I think more about it as small language models with compute at the edge. So you think about that robot arm that is sensing and actuating, that data has to go back and be computed to determine the next move to follow its algorithm. Now you can have that compute power in the device.

So you think about the benefits, less latency. It's closer to the actual source of the data when you do the compute, less power consumption and more secure because you're not taking all of that data, physical data, converting it to digital, sending it to the cloud, you're doing that at the edge. So that the mid- to long term is a huge opportunities for us, because it builds on our analog expertise, our ability to convert the analog and then to do the compute. So that -- I think that's one of the really long-term things that I'm excited about.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Have you guys ever sized like put a number behind like the AI opportunities for you guys? Or...

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So the AI -- exposed AI today for us is sort of low to mid-single digits, say, \$400 million-ish of our revenue today that's growing double digits and some of these things we've talked about as we get more design on the power side. The other piece, I did miss one, I apologize. The other piece that's exciting is particularly when you think about the AI data center and the GPUs and the connectivity, the speed and so we have optical devices that are part of enhancing that speed. Everything is moving up, right? We're going from like 1.2 terabit speeds for communication, and we play a role there with our devices. So that's another really strong area. And those could contribute another 5% or 10% growth to our comms business, right?

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

Got it. Got it. Stacy, that was a great question on the earnings call, but you guys chose to focus on 2Q and revenue, whole time.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

What, say that again?

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

I'm just giving you a hard time, just give me a dig at the sell side a little bit.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

We can take the chair away actually. We could do that.

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

I can stand.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

I want to go to auto. This has been a pretty good -- I remember like when I first started covering ADI, they still had auto like lumped into the Industrial business because it was still small. Healthcare is still in the Industrial. I always ask, like when are you going to break healthcare out? When is it going to be big enough...

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

Do you want to ask the question -- is that...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

No, I'll just say auto was -- so auto is not in there anymore. Auto is -- I can't remember, 20% or 25% of revenues now, something like that?

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

30%.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

30%, okay. So closely, there's an EV portion and we tend to look at EV just as strictly as BMS, but I kind of maybe get the (inaudible) maybe it's broader than that. Maybe you could talk a little bit about I guess, the broader auto opportunity and then as well as like what do EVs mean for you?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Sure. And I guess you can think about it across the 3 categories of vehicles, right? So you've got the ICE vehicles, you've got your hybrid vehicles, and you have your fully electric, right? And if you think about what has happened in the car, you drive the in-cabin experience has changed dramatically. There are more speakers, there's more microphones. There's more sensors. There's more compute. There's more screens inside. You have to transport all of that data, right? The video to your screens.

So in addition to the battery management, which we'll get to, we have our GMSL products, which are helping facilitate all that activity inside the cabin. And that is across all of the vehicles, right? Because you're going to get -- you're going to have the luxuries whether it's in an ICE vehicle or a hybrid or an EV. Then we get an incremental step up in our concentration in auto when you move to the EV and the hybrid, obviously, there's more battery management in the full EV than there is in a hybrid, but so you get a little bit more concentration and a little bit more dollar value in each of those cars.

And the things that have been happening for us that have been fantastic. We talked about this in the call. We've gotten designed into 2 more of the largest 20 OEMs. In addition, we've got design wins in one of the largest Chinese players. So we feel really good about that opportunity. And the concentration continues to grow, right, as they add features and functions. And we start to think about more and more of the automated driving and ADAS and where it's going to go. So that is a good opportunity for us.

And actually, in the most recent period, auto continued to perform best for us and we expect that it will be -- it has proven to be a shallower trough than we've seen in industrial, for instance. Now look, are we certain, 100% certain it's the trough on the auto side? No. But do we see signs given that we have got signals that we're going to see growth there, that we're coming back out of it? Yes.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. I guess within the BMS business, you guys talked a lot about like wireless BMS versus wire. Can you talk a little bit like what that is, what the advantages are. And I'd love to get some feeling of like the actual like content that you guys are seeing in the cars right now.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

I'm going to (inaudible) pass the...

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

Sure. Yes. So you're right. So our legacy has been wired BMS. We're the leader in wired BMS. That's not going to go away. BMS is battery management systems, by the way, for -- basically, we manage the battery, and we imagine more accurate than our peers, so you get more miles per charge.

We've moved to the next generation with wireless. Wireless basically is it's all the features of wired, and we can do it wirelessly. Why does that matter? It's better R&D efficiency for the customer. They can design a few platforms as modular across different vehicle models. They can manufacture that through robotics versus human, faster, lower cost to manufacture batteries. Which are very expensive. So those are 2 big features. Now what do we get? We get 2x the content. If you use a wireless system, you get the wired plus all the wireless connectivity in that.

And what we've seen is we have 4 or 5 OEMs adopting it. Today, we're shipping one for revenue, 2 more in the next, call it, 6 to 12 months, another couple beyond that. So you're seeing a proliferation of wireless. And really, the reason why they're doing it is driving down the cost to develop these batteries, which is super expensive and hard to do. So I think you'll see both over time. Wired won't go away, but wireless will increase in penetration over time.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

What kind of content are we talking about? Like is it hundreds or thousands, like what, I wish thousands...

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

Hundreds. Multiple hundreds.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Okay. Got it. And I want to ask a little bit about industrial. So it is your biggest market. I always joke like it's not an end market, it's like hundreds of end markets, right? I mean what are the biggest pieces of industrial for you? How are those growing?

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

So as I break it down, you're right. Hundreds of markets, but there are a few big ones. The biggest piece of industrial is instrumentation and test close to 30% of sales. Think of those like automated test equipment, electronic test and measurement, scientific instruments. That's a big part of our business, 30% are probably the most exposure than anyone in the analog industry to those markets.

Number two is factory automation, close to 25%. That's been weaker recently. It was a little higher now it's below 25% because of just overall inventory digestion, but a very important market for us. Those are the 2 biggest pieces represent over 50% of industrial. Then number two -- sorry, 3 or 4 would be aerospace and defense, and health care, both between 15% and 20% of sales. And then sustainable energy is probably close to 10%, maybe high single digits. That's about 90%, 95% of Industrial. The remaining is what we call other as a grab-all bucket.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Got it. Got it. And back to the comment I made earlier, right, if you think about the industrial space, it's the testers for the high bandwidth memory and the compute. And then -- sorry.

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

It's working. That's...

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Okay. So we're catching some really good secular tailwinds as you think about it. And that's why we're optimistic.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Yes, that automated test business can be very -- you had some quarters back in the day where it was like 0, I think.

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

0. But you're not wrong. So inherently, [ATE], automated test has been very lumpy. What you've seen is these testers need more and more semiconductor content. It's much harder to test high bandwidth memory than NAND, general NAND. So we ship more content per tester than we used to ship and there's more demand out there everything needs to be tested. Everything -- every growth we talk about, whether it's EVs, AI, wireless systems, factory automation. I mean you could go through the whole list. There's more growth drivers of our business. Therefore, we need more tests. And we haven't seen these drastic lumps of recent history just because it's a more diverse business with more content per tester.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

That makes sense. It makes sense. I want to shift gears to China. So you talked a little bit about -- you said it looked like things are starting to improve somewhat. I guess maybe can you talk a little bit like which of your businesses have the most China exposure? Like what do you see, and in general, I would say your overall China exposure just in terms of percentage of revenue seems to be lower than many of businesses. I don't know 20%-ish?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

It's less. So I think in our 10-K, we had about 18% exposure in China today. It's about 15%. And if you think about it, 95% of that is B2B. So it's 80-ish percent is between industrial and auto, and there's 10% in comms and roughly 5% in consumer. And what we started to see is order rates increasing. I mentioned we had the design win in at one of the larger Chinese automakers. And look, the factory automation tailwind is real. And so we're starting to see that.

Look, there is continuing pressure from the domestic made in China for China, but one of our advantages is we're not playing in the low-end commodity space. We're in the high-performance space. And my prior comment of how much of the China business is industrial. It makes it very hard to attack because you have to have breadth and depth and performance in that space.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Is your China business primarily -- you said B2B sits for use in China? Because like lots of companies, and most of the semicons have lots of China revenues but it's mostly just because the electronics and everything are assembled there and it's not for local consumption. But your overall revenue is much lower. Is it mostly for local consumption?

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

Yes.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Our ship to is higher than that to your point. 50% is basically China relates to China customers.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

What's your shipped to, just out of curiosity?

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

Probably closer to 25%.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

It's still relatively low (inaudible). Okay. Got it. So you mentioned like local Chinese competition and made in China. What are your views? How big of a risk is that actually? Like they're building clearly a lot of capacity. There's a lot of -- I just got out of -- we did -- (inaudible) was here earlier, and there's a lot of questions like where are they going to put in all these fabs? And like where is it going to go, like how worried are you about this?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So they do appear to be building capacity for the lagging edge technologies. However, there is a stickiness to the product. Once you're designed in and up and running and your product is effective, it is incredibly challenging. And we saw this even during the downturn -- during the supply chain challenges, customers wanting us to take a potential competitor, but it's an arduous process. You got to deal with redesign on the software, pin-to-pin compatibility, all those things so that gives the product some stickiness.

The other thing I think I mentioned is we shipped a much higher value product. We're about 4x ASPs to our competitors. And so we're delivering a high-performance product. And I think that they're not there yet. I don't think anybody actually is there in most of our portfolio spots. Do I think long term, they're going to continue to invest, to be a hard challenger? I do. I also would say that's where we see the most intense price pressure. If you think about our pricing situation, China is probably the most acute price challenges.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Is that because of local competitors? Or is it because of multinational competitors in China?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

I think it's more because of the local competitors. But look, some of our competitors have made it quite clear, they're going to compete on price. So there is both elements. But just given what I'm seeing from an investment perspective, and I think out beyond this quarter, the pressure is going to continue to come from the locals as well.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. I guess what's your general philosophy on pricing? I guess, what are you seeing on pricing more lovely because I've been really surprised -- I'm living in an inflationary environment, right? And clearly. But like unit growth in the industry hasn't been that great. Like units in '23 were broadly below where they were in 2019, which was the last downturn, and I think industry pricing was up 30% I think [x memory] is up like 45%. So like pricing has been -- I mean, pricing saved the industry during COVID-19.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

It was, I agree, it was growth driver.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

So like what are you seeing in pricing? And in general, when you mentioned you're seeing lots of price competition in China what is your general philosophy in terms of responding to something like that?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So obviously, we are competing on value in China, but I'll do that overall first. We're certainly seeing price stability, right? And if you look at it, we don't have to go back a long time, (inaudible) that historical price down activity where we get more efficient and pass on prices. And so it's been stable. We expect it to remain stable, and that is a combination of ups and downs, right? Because our largest customers hit volume tiers and they get some price reductions.

However, if you think about some of our much longer-lived products, there's a cost to continue to keep all of the gear to build those products for a long period of time, and that's where we tend to see price increases that offset what we might be seeing in the volume decreases. But overall, pricing for '24 has been stable, and we expect that to continue. Obviously, as you described, Stacy, it was a significant tailwind in '22 and in a bit of a tailwind in '23. It's pretty new -- pricing is pretty neutral in '24, and we expect pricing to be pretty neutral in '25.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

I mean, Vince has talked about like being in a perpetually inflationary environment. Are we past that, like I don't know, I know what Vince's current views are on this like...

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

I always agree with our CEO.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

If you were looking for me to contribute...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Okay. But it does sound like -- I mean, clearly, you are adding more value. And maybe you could talk a little bit about like the kind of value that -- so my understanding is it's not just the performance of the silicon. And by the way, for those of you who [don't know] ADI, like they bought they've developed both internally as well as buying very high-performance players. They bought Linear Tech, which I think was probably the highest quality and highest performance analog player in the space by a country mile. Maxim clearly has been good.

And so -- but there's also been a lot more talking about like software content. And like I guess, maybe could you talk a little bit like that value add and how is that being monetized like...

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Yes. So I'll give you sort of the 2 things that I think about. One is ultimately, and I saw this even in my old world, customers want you to solve a problem. They want a solution and our ability to bring a full solution aggregating various elements of our product suite into a solution is a very powerful thing for customers and also a value-add opportunity for us because we can capture more value further up we go. Part of that is having the software to help them design on our platforms and to help them be more efficient. So that is a super powerful piece for this.

And so those are the 2 things I think about adding value is our ability to bring together the underlying analog components and add in that software intelligence on top and do it in an application specific way because one of the things that I think we do really well is take advantage of our domain expertise right, and build a targeted solution to solve customer problem. Which is why we get a premium from an ASP perspective.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Yes. You mentioned you were 4x. Do you have -- what is your average ASP? Is that a meaningful number? I mean you sell...

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

4x is -- the [SAA] data says, (inaudible) Analog is, call it, \$0.40. So you're good at math, today is probably, say, \$1.50 plus-minus, not too far off. I think this is an important point to make, I mean, ASPs and pricing. People could convolute the (inaudible). ASP is the value delivered to the customer. Our ASPs, each generation of chip go up. Why? We put more value in each semiconductor chip we make, as Rich pointed out.

Once you get that design win, that pricing is very stable over time. So there's 2 dynamics going on. We want to deliver more value, that means ASPs continue to rise. And then once you win that socket and you have to fight for that socket, pricing is a dynamic at the onset, it's stable after that. And you can see that in our revenues and our gross margins, deliver value, capture value and stable pricing after that.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

And like how stable are the products themselves? What's the average age of the product that you sell today? You used to show this chart. I don't know if you showed in a while, but it was -- so the revenue of the company is split up by the -- (inaudible) exactly, you always have this little strip at the bottom out of 10% of revenue. It was like 30 years old.

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

That's true. So it depends on market. The industrial market for us is half our revenue. The average life there is 15-plus years. That's the average life. We do sell some products are 20, 30 years old in that market. But all of our markets, I would say, the other half, auto is probably 5 to 10, comms, 5 to 7. I mean, these are all -- when you get that win, it's in there for a long time. It's almost an annuity. Like we're a hardware business, but we actually have software business too in a way because you get the win, and it ships for the next 5, 10, 15, 30 years.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

How are the dynamics in consumer different by this? I know the consumer is not that big anymore. But I guess where are the areas that you're focusing there? And part of me is always surprising that you do any consumer business at all? Like why is that a market that you're in, like how do you differentiate there?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Well, one of the examples where we differentiate is if you think about the noise cancellation technologies and their abilities there, a lot of that goes into consumer products. Obviously, it's also, in my view, a very tough place to compete because the product life cycles are much shorter than you've seen in the industrial. Obviously, auto cycles are getting shorter, but they're still significantly longer than the consumer. But we're competing because we've got the best technology in that space. And we're continuing to grow and expand our share at our largest consumer customers.

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

I mean, you're right to say it's a competitive market, all market's competitive but consumer's more competitive. So what do we do? We limit the R&D into that market such that consumer does not support the same gross margin as ADI, you can have very good operating margin and free cash flow as long as you constrain the R&D and don't overspend and that's what we do. We solve the hard problems, knowing that it's going to be a quick design cycle, but make sure you focus on operating margin and free cash flow when you go after those sockets.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Got it. Where are you sort of deploying like incremental R&D now? Like what are the opportunities that you're looking forward that you think drive more of the business going forward. And I guess maybe even on top of that, what does that R&D investment cycle look like? Like how far in advance of new products are you actually investing before you actually start to drive revenue with those?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So I would say the -- how far varies, as I talked about, we started 6-plus years in advance on the Sentinel product, but that was white space. I would say that the average cycle is more like 3 to 5 years, Mike? So 3 to 5 years. And we're -- we've gotten to be very disciplined about which investments we want, how we measure them, how we track progress. as we continue to get more efficient in using it. But we're going to continue to be focused on some of the bigger bets.

And then look, I (inaudible) [them on] a little before, but clearly, we're going to continue to work on digital opportunities. We're also investing pretty heavily in AI and AI in our products, right? Look, we've been embedding software and algorithms and intelligence in our products for a very long time. But this opportunity that I described to get out at the intelligent edge and have the AI play a big role there. So we'll continue to invest heavily there.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. You mentioned digital opportunities. Is that really processing? And I know you have a DSP business, you don't talk about it all that much anymore. Is there more you guys want to say about digital?

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

I mean it is more -- yes and no. What is digital to ADI? We embed digital into a lot of our chips. We talked about transceivers, BMS, Apollo, who goes to airspace and defense. It's not like a separate digital chip, it's embedded digital into our analog heavy chip. Why do we do that to increase the performance of the chip or make it easier for the customer to design in. We want to do more of that. When we say digital that's what we mean, we don't mean like have this embedded portfolio and sell that. It's about increasing the performance of our analog through digital.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Got it. Do you do DSPs anymore?

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

Yes, we do. There's money. So a lot of -- so we like to talk a lot about A2B. A2B in the car connects microphones in the car. The core there is our DSP SHARC franchise. That was our first product there, then we bridged from the DSP into A2B, which the connections around microphones and speakers in the car. So yes, we do, and we still invest in that.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Got it. I want to few more financial question. CHIPS Act, so where are you guys -- I know you guys are -- your CapEx was -- come up -- [some you] were running, I don't know, mid-single digits. It came up to, I don't know, 9%, 10% for a while. It's kind of going back down. I guess where were those investments going? And like how do we think about the potential like opportunity from the CHIPS Act for you guys?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So -- I'm sorry. So 2 things, right? We've already started to accrue benefits from the CHIPS Act. So we've got several hundred million on the balance sheet...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Is that from the tax credit?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

From the tax credit today. We are not seeing any of that cash yet, and the actual offsets that we're seeing to depreciation at this point are pretty small.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

So they flow through gross margin, not through tax rate. Okay.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

We are also have applications in on the grant side. We're still working on that. We'll have more visibility as to the size of that in coming quarters. hard to predict where they'll settle. So we are taking advantage as best we can, both domestically CHIPS act as well as in Europe, given our significant presence in Ireland.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Okay. Maybe I shouldn't ask, what's taking so long with the grants?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

It's -- to be honest, it's a brutally detailed comprehensive application process. And then they have a review cycle. So we're in the review cycle. So we've gotten our initial applications in, but they don't move it that fast.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Okay. Got it. So there's also been, I guess, a change in strategy. So clearly, you were one of the players that we're pursuing an inorganic growth strategy. I think there were -- I mean the 3 biggies were what, Hittite and then Linear and then Maxim. And there's been a pivot since then. I mean the general narrative is you've now moved to cash return instead of M&A. I guess why was the decision made, and you weren't there yet, but I mean, in general, like why is M&A no longer needed? Do you just have all the pieces that you ever -- is it no longer possible? Or is it still on the table? Or...

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

So I wouldn't say it's no longer needed. And I would say it's not off the table. But the way I would characterize it now, and I'm going to steal from Vince because he's been talking about it this way is we feel like we have the digital franchise -- excuse me, digital franchise -- we have the analog franchise, Wow. We have the analog franchise that we want and need, and so we wouldn't be looking at acquisitions in that space.

However, as I've described, our significant focus on software, digital and AI means, in addition to investing a bunch of our capital internally in that space, we continue to look for opportunities there where we could accelerate and help solve a customer problem by bringing some inorganic technology inside. So we continue to look and to evaluate. But while we're doing that, we are continuing on what we've told shareholders post-Maxim is we will target long term to return 100% of our free cash flow. Obviously, we've increased our dividend again this year and then the balance will be buybacks.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Yes. Got it...

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

We are on -- we do continue to look at opportunities particularly as they might help us accelerate on the software digital and AI front.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Got it. I guess along those lines, you used to have a leverage target, which I think you've been -- was it 2x even running way below that? Is that even a target anymore?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

I would say in the current environment, we've been hovering around 1x leverage, and given what we're doing today, I'm comfortable with that range, right, because we are continuing to give back cash to our shareholders earlier in the second quarter, we did go out into the market to essentially prefund the 2 upcoming maturities we have. So essentially net leverage neutral by the time we finish the process in April of '25.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Got it. What's the current buyback authorization outstanding now?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

I think it's just under \$2 billion left. \$1.8 billion left.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. We've got about 5 or 6 minutes left. We've got a few questions here. By the way, if anybody else does have questions, please feel free to submit them. But you'd love our lightning round?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Sure.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

[In] what market or product areas are you facing the most competition or the least competition?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

I think the most competition near term and even medium term, I would say, is in the auto space in the EV world.

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

Yes. I mean it's always -- there's competition in every market playing, right? .

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So I mean there's nothing new in the world today that was the one there before. We always sell value, which is a good spot to be in. (inaudible) coming. Everyone's going after AI. I mean that's the thing about -- you see growth, you run after it. Now we -- our job is to continue to move up the value chain, sell more value. We talked about wireless BMS. A great example.

If we were still shipping wired BMS, it would be a much more competitive market. It's still competitive -- but we know what we do, we add features, we added wireless. We added EIS. EIS allows you to charge the car faster. So we're always delivering more value such that we stay ahead of our competition in any market we play in.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Who do you view as your most significant competitor though, maybe that varies by end market. But is there any one player that you see more often than others? I got to imagine it's TI, but like I don't know.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Overall, clearly, we compete heavily against TI. I mean, we run very different strategies from how we approach it, right? With us being much more focused on the high-value sell and they're certainly selling -- they got a lot of fabs to fill. So they're going to sell (inaudible). And I think there's different competitors in different spaces. If you think about them, right, [MPS] is an aggressive competitor in the power space. So I do think, as Mike said, the competition is pretty intense in all of our markets, but we continue to win. Our pipelines are very healthy. Our design wins are increasing. So all good signs.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Got it. Over the longer term, which portions of Industrial do you expect to grow the fastest.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

I think it's going to be factory automation, right? The pressure on the industrials to get more efficient and more mean. One of the things I've got a greater appreciation for in my prior role is, believe it or not, there is a limit to the number of humans out there to do the work we need done. So driving that automation, one is going to offset the inability to find people to do the work and also you get much faster throughput and cycle times and lower error rates. So I think that's going to continue to be a tailwind.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Maybe along those lines of question, why is edge AI critical for factory automation, and what other end markets is edge AI strategic focus for companies? I feel like that's a plan like why and how are your end customers adopting AI is how I would read that question.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So I guess I'd go back to a little bit of what I said before is, on the Industrial, it's having the ability to do -- if you think about if you go into a factory and you'd see a lot of the things that are automated and off to the side is the giant workstation, which is where signals go, get processed and get put back into the machine. If we can get it to that, compute happens on the automated device, again, reduces power, reduces security risk, reduces latency, that's why they want that. And I have a view, and I think [as Vince's], the closer you are to where the data comes from, when you do the compute, the more efficient, the more effective it's going to be. right now.

Look, there are still going to be things that are going to go back to a cloud for a deep analysis and things. But the more of the stuff you can do at the edge, the faster you can do it, the cheaper you can do it from a power perspective, too.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Can you discuss differences in your CapEx strategy between you and TI?

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

So yes, I can. We've historically -- and I'll do a little bit of history. We've historically spent in the low to mid-single digits of our revenue on CapEx. We told everybody as a part of our resiliency program, we were going to ramp that up pretty significantly. So we did, right? Last year, we spent \$1.3 billion in CapEx, which was pretty significant for our company. We're -- that's going to come down \$600 million this year, and we fully expect to get back into our model next year, which is low to mid-single digits on our CapEx.

And part of that is, as we talked about, we've qualified a ton of our product to be built externally. So I'm happy to use TSMC's capital to produce our product, especially in times when we're booming and need extra capacity, I don't have to spend capital. Now look, we may spend some small piece of capital to have that through the qualification process. But once we have that, we're just not as capital intense, TI is going to build a bunch of factories, and they're going to -- and I think they've said they're going to have 80% of their product can be built in internal fabs. And that's just a very different strategy.

Look, if I think about it, you have to think about that capital investment in 2 ways. It's what are you spending in R&D and what are you spending in CapEx. We tend to be CapEx-light and R&D heavy because one of the things we get, and we've talked about it a bit is we get the higher ASPs because of the innovation premium we bring to the table.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. I guess I'd like to follow up and maybe it's -- I don't know if you can answer or not, but like the cost to build externally versus internally, maybe it's same because like when you're building externally, you're in your full internally anyways. And when you're building internally, it's because your utilization would be down. So I don't exactly know how to judge the cost difference. But is there -- like what's more cost effective for you? Because presumably, you're paying a margin like when you're outsourcing the stuff? I don't know how to think about that.

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

One cutoff is anything below 180 nanometer, so 90 (inaudible) [all] external. We can't do internal. So first off, that's the cutoff. And then the difference between internal and external cost, it kind of depends. I mean if you have a fully depreciated equipment, while it's probably a little more cheaper internally. You're building out new fabs that cost versus external cost is very similar.

So we look at it from the standpoint of what lithography is and can we do it internal. We'll do it internal, if we can't we go external. In that term, I mean, we have a hybrid model. A lot of industry has a hybrid model. Richard talked about swing capacity. That's unique to ADI, doing stuff inside and outside the company, same product, different manufacturing site, either at ADI or at our foundry partner.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

And if we were to build fabs for the lower lithographies and then you pick up the incremental cost of running those over the long term would create a significant cost disadvantage.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. We're out of time actually. So I think we'll close it off there. Thank you so much for coming.

Richard C. Puccio - Analog Devices, Inc. - Executive VP & CFO

Thanks for having us. Appreciate it very much.

Michael C. Lucarelli - Analog Devices, Inc. - VP, IR and FP&A

Thank you.

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