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**Editor** 

### **PRESENTATION**

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

So I guess we will get started. Good morning, everyone. Thank you for coming today. I'm Stacy Rasgon. I'm Bernstein's senior research analyst. I cover the U.S. semiconductor and semi-cap space, and I can't express what an honor it is to have our guest here today, Haviv Ilan, the president and CEO of Texas Instruments.

Now before I start, I want to mention, if you have questions you'd like to ask during the presentation, there should be a QR code in your program. It links to our pigeon hole form. You can submit questions there, and we will have time for Q&A in the end. So look, like I go on every year at this session. TI is usually here. And I always talk about the remarkable multiyear transition story that benefited TI like over the years, and they've made it look easy. They like to say that people see them as boring. I'd say that the company and the stock and the strategy have been a little less boring lately, and I want to dig into that. So to help us understand why, it's my great pleasure to welcome Haviv. So thank you so much for being with us here today.

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Thank you, Stacy, and thanks for having us.

### QUESTIONS AND ANSWERS

**Stacy Rasgon** - Sanford C. Bernstein & Co., LLC. - Analyst

So I want to start out, I think, I guess, with the Elliott in the room. So clearly, I don't think TI has ever had an activist involved. And maybe just to start out there, can you -- just to level set where we are, can you just go over what the actual baseline plan is for your capacity and CapEx investments? And then I want to talk a little bit about the letter itself and the case that they're kind of laying out and just get whatever you -- because I don't know how much you can say at this point -- but like whatever you can say, I'd love to hear your thoughts.

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

So thanks for the question, Stacy. I definitely expected it. But I can't say a lot. Just to give you the facts, we have learned about it on Tuesday morning for the first time. So it's pretty fresh to the team. We are, of course, reviewing the notes and definitely look forward to engaging in a constructive dialogue with Elliott. I will say that, as always, we run the company and make decisions to support the company -- the entire shareholders of the company -- so that will continue to guide us moving forward.

Now, I won't go into the details today because I think it's fair we do that with Elliott first, but I will be happy to talk about our plan. First, we can talk about the why and the what and provide as many details as needed as you go through your questions.



### Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Got it. So I guess just to level set on the current point, let me know if I got it wrong. So it's \$5 billion in CapEx per year from '22 to '26, and that was taken up from \$3.5 billion to \$5 billion. My impression there was you're effectively reinvesting the investment tax credit in more CapEx because the depreciation guidance at the time was sort of held constant. So \$5 billion through '26, and then '27 and beyond was 10% to 15% of revenue on CapEx to support, in theory, 7% to 10% revenue growth at that point. Do I have that right?

#### Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Well, let's -- some cases and some of the points, yes. Some of the points I would like to provide a little bit more detail. But first, let's think about the investment phase --

### Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

And why, to your point? Because I mean I think by the end of '26, maybe by 2030 the revenue capacity was -- I can't even remember was supposed to support -- I can't even remember the number. Was it \$30 billion? Maybe it was more.

#### Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

Again, we'll talk through this. But let's talk about the why first, and the why starts with the market opportunity. I think it's obvious to us that the secular growth in industrial, in automotive, is actually accelerating. Of course, sometimes tough to see when you go through a correction -- and there is an inventory correction in the market -- but if you put it over a trend line, it's obvious that secular growth is there, and in my opinion, accelerating inside this decade.

### Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Because this is -- industrial auto, I mean, you've been pushing this. You were one of the first, I think, (inaudible) got to be 10, 15 years ago at least, right?

### Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Which leads me to our position and the position of -- we talk a lot about revenue, but revenue doesn't get created just by letting the market grow. It's related to our investment and our strategy. And you're right. I remember 2010, 2011, we said, hey, we are going to bias our investment, our R&D, our SG&A towards these markets, with a vision that secular growth is going to come. And we have done well. I mean I have seen the R&D machine cranking out more and more parts. We used to have one business unit building automotive parts, for example, in 2010. Each and every business unit in the company -- and the number of product lines is more than 60 product lines, they all build automotive products. So the opportunity is very, very vast, and this is how we build the position. You create the product portfolio, you engage with customers, you invest in your sales and application team, you invest in your website, which led to a strong position of almost 75% of our revenue in 2023 in industrial and automotive. So to me, to be exposed at such a high level to, I believe, a couple of the fastest-growing markets in the semiconductor industry is a good position to have. The third one, and I think we talked about it even last year, there is also a tailwind on how customers make decisions. And we run an average unit price around \$0.40 or so, more or less with the market. And these decisions would be made at the lowest level of the engineering force at our customers. But today, especially in the last couple of years, our customers received guidelines from their leadership team, from their CEOs, from their CPOs about the dependability of capacity, and TI is in a unique position to provide this geopolitically dependable capacity at a very affordable cost-competitive manner and also with muscle or the size of the capacity. So when you think about these three elements and you say, hey, we have grown industrial and automotive between 2013 to 2023 at 10% CAGR. Could we accelerate it this decade? I think we can. Hard to see right now be



to be ready to support this potential, and this is why we are invested in capacity -- okay? And it's done in three phases, and I would like to go through (multiple speakers).

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Yes, please. There's a lot of different pieces here.

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes, and it's very complex. I can tell you that the execution of that plan is complex, and it's actually more than three years of an investment period. It's six years, started in 2021, with the acquisition of the assets from Micron (multiple speakers) acquisition. And then working through 2022 to qualify the fab and to ramp it to production, which we have done at the end of '22. I think I was here a year ago, and we talked about the fab is ramping to production. We have continued to do that. And I love Lehi, because simply it doesn't need revenue growth to get utilized. So you think about Lehi as a transfer fab. This is where every week, we have wafers moving away from TSMC, UMC into Lehi. It's done in two waves. Wave --

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Just analog then, or it's embedded here?

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Starting with embedded, but analog is following. Let me start there to give you some more granularity here. 2022 was really F65 we call it, or 65-nanometer embedded nonvolatile memory, serving low-power MCU, serving DSP, serving wireless connectivity. All of these parts are now qualified in Lehi and shipping from Lehi. Not only you get more control shipping out of Utah versus Taiwan, but cost or the fall-through is tremendous. Think about what happened with wafer prices with the foundries in the last couple of years. The Lehi investment is predominantly done. The main power was there when you took the team, the fall-through is almost a variable cost of the substrate, some gas and some electricity. So a very beautiful transfer of revenue from a foundry into -- inside TI, and allows us also to win more business with the dependability of capacity. Lehi in essence as it ramps to full production somewhere in 2025 will be simply revenue replacement. It doesn't need growth.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Okay. How much revenue does Lehi support when it's at full capacity?

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

So I think the -- it's close to \$4 billion which is aligned -- and it depends on the mix. It's going to start with embedded and later on what we call high-speed mixed signal analog. This is what we do right now. So 45-nanometer this year, and next year is analog. So when you complete that, more than \$4 billion of revenue support. It's a very nice fall-through. So that's point number one.

The point number two that is going right now is RFAB2. RFAB2 is again a beautiful investment because the fabs are connected. So if you think about the way you add capacity...

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

RFAB1 was the original one back from 2010 with the Qimonda assets?



Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Correct. The cost to build RFAB1 was much lower. Of course, we bought equipment \$0.10 on the dollar. These days are over, and we can talk about why, but I think we all know why. And RFAB2, we've built the shell. I wish we had it earlier supporting the previous cycle, but it supports us right now. And the way it does it is as you add equipment into RFAB2, wafers are traveling between the two fabs. So it's actually one big connected fab, which is a very efficient way to add modular -- modular way of adding equipment. But more importantly, the customers don't see it as a new factory. So I don't need to --

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

You don't have to regualify or anything.

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

No requalification, no change notification, it's the same factory. So that serves us very well, especially now because, Stacy, I'll be very frank, part of the headwinds we experienced in '21, '22, we simply did not have enough capacity. And I was in the center of making some very tough decisions of who are the customers that are going to be told, hey, you have to find a different supplier, and it was very tough. I'm talking about a huge amount of revenue that we had to say, not right now, mainly outside of industrial and automotive. So think about consumer, think about enterprise, some of the comms and -- tough. But now as RFAB2 ramps, we go back to these sockets, and we go and rewin, and it's a very, very effective way to do it, very low cost. And that's one of the ways that RFAB2 right now is highly utilized.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Are you rewinning those sockets?

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

We are. I think customers are smart. I don't think we will be handed over 100% share, but let's start at 50% and work ourselves from there. So I think that is very, very important and again, RFAB2 is fully utilized these days. They're fully utilized. It's not at full capacity because equipment is being added.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

But for the equipment that's there --

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes. Yes. I mean when I say full, above 90%, okay?

**Stacy Rasgon** - Sanford C. Bernstein & Co., LLC. - Analyst

And that supports another, what, \$4 billion or \$5 billion when it's fully (multiple speakers).



Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

When it's fully built, it's going to be close to \$6 billion, okay? And the other point, which is -- again, now it's more tactical, but there is also transfer wafers to RFAB -- this is the first time we do it. It's not usual, but we are transferring wafers from our 150mm wafer fabs. As we announced, I think you -- maybe people don't remember that \$2 billion a year kind of fab in Sherman. In Dallas, one 6-inch fab.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

I thought you closed all your 6-inch fabs.

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

We haven't. We haven't. But we are doing something very unique, modernizing these parts. So think parts even from the Burr Brown days (multiple speakers), getting redesigned into modern 300-millimeter wafers. So think about from 2,000 chips per wafer into 0.5 million (multiple speakers) in real cases cost becomes quote-unquote really just package and test costs. And the exciting part is -- forget about the cost fall-through, it's really the modernization of the part, meaning customers now have the peace of mind that I can run through the next 40 or 50 years. So they know that they are out of old factories and they have -- they can design them in into future systems, especially at the lower cost that we are running in right now. I'm excited about that. That's another -- again, when we talk about capacity, yes, there is \$30 billion, but these fabs are going to shut down. So this is also a tailwind that no one takes into factor. What I'm excited about, and we build these factories during a downturn revenue decline because revenue is starting to stabilize and maybe starting to show momentum. Having these two factories running at full capacity, one on the expense of the foundry, one on the expense of our 200mm. So underutilization in 200mm and 150mm may be growing, but our 300mm wafer fabs are running at full and I think --

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

And those ones are fully depreciated anyway, the 200 --

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes, but you know, there is still labor there, and there is underutilization associated with them. But that's hard work, to utilize your best capacity or most modern capacity, especially because it prepares you for the future. I'm excited about that, and I think people underestimate that. And you will see that fall through. You don't have to wait 15 years for that, okay? That's coming now, as we speak. So this is phase one, you know. LFAB2...

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

That's all phase one.

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Phase one, yes. This is LFAB1 and RFAB2. Now, the more complex one is -- let's talk about LFAB2 and talk about Sherman, which is the heavy lifting in Texas. LFAB2, in my opinion, more straightforward. It's also on our slide, large investment, our largest fab.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

\$11 billion.



Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes. And we support probably more than that on revenue. Sophisticated type of product compared to what we do. So running from 65 all the way to 28.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Do you have any products on 28?

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

We are developing that now. It's our own process, and the investment is tailored to our portfolio, mainly led by embedded but also high-speed mixed-signal for analog. And these will ramp sometime in -- it will ramp actually in LFAB but we'll continue to ramp in LFAB2. In LFAB2, when we think about 2026, why we have 2026 as a milestone, this is when we are ready to receive tools.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

For LFAB --

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes. And LFAB2 is a beautiful fab because it's connected. So we will add in a modular way to -- as a function of revenue. And we said, I think, in the last capital management, we will decide capital beyond '26 based on where revenue is. First, what's your position. And then growth perspective. So you said 10% to 15%, so I disagree. It's (multiple speakers).

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

That was also on the slide, I think --

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

But it's a funnel, it's a funnel. Okay. We also – thought should we change the slide? We decided not to touch it, but I think you asked a question during that call, it can go from zero to

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Right. I mean, if revenues are growing 2% in '27, I'm assuming that [your CapEx would be lower] (corrected by company after the call).

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Absolutely. And then you think about the fall-through, it's immediate, right? So that's just to clarify 2027 and beyond on that investment.

Now Sherman is a little bit more complex. And the reason is Sherman is what we call a new dot on the map. Luckily, the map is -- its proximity to North Texas. It's only 30 miles away, but it's a new fab. Then you build a new clean room, and we are building two together because it's more efficient. We said on the call equip Sherman 1. What we say equip is really qualified. So the capacity is going to be very small, less than, I think, less



than \$0.5 billion of capacity in '26, but you need to build it in order to not only qualify the fab, you also have to get acceptance of your customers. So it's a long lead time type of approach. And that's how we think. You build the infrastructure so you can build into that clean room when the time comes. Same example is LFAB2 but needs some equipment in 2026. We are running the, Stacy, analog right now, copper and aluminum, 130 to 65. So it's a very sophisticated fab. The revenue (multiple speakers).

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

That's the plan for Sherman right now?

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes. And revenue per fab is going to be close to \$9 billion over there.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

And there's going to be four fabs eventually?

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

Correct. But again, you build according to revenue. The beauty of SM1, SM2, and again, they are connected, we can think about them as one large fab as you add capacity in a modular way based on revenue. So just to go into more details about our plan and also to clarify the '27 and beyond. Now we said we finish it in '26. We always try to execute at the best level, and it's within '26. I don't have the exact month yet, but I think we should be done some of them at the end of '26, some of them earlier. So that will guide later on our capacity investment.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

I guess if I add all of the incremental revenues, we had Lehi, which was -- maybe I don't know how much of it is incremental from where we are right now, it's somewhere you look maybe it's...

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes, don't think about Lehi as incremental revenue.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Okay. Okay. And I guess same thing with Lehi 1 and 2. So Lehi 2 is \$11 billion. And then it sounds like Sherman when it's done is what \$36 billion, \$9 billion apiece you said.

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

That's what we talked about 10 to 15 years, but we'll build them as revenue comes.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Incremental revenue capacity growth between now and '26 is primarily Lehi 2 then, is what you're suggesting?



Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

No, it's 0 from Lehi 2. Lehi 2 as we said at the end of '26, it's clean room only, okay? The \$11 billion is for, of course, for clean room and equipment, mostly equipment. Equipment doesn't start before '27.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Okay. So there's \$5 billion a year in spending between now and '26, but there's not a ton of incremental revenue capacity that's ready to go between now and '26.

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

No. RFAB2 is incremental revenue. Of course, we are right now winning back sockets, but it gives you more capacity. So capacity for the company will grow. We mentioned, I think, supportability of \$30 billion, but that's a sterile number. Included in there is mix, but it's never 100%. And I have a couple of fabs I need to shut down. So all of that gives you the picture of where we can be. Now let's talk about the revenue, Stacy, and I look at it peak to peak. So 2014, 2018, 2022, TI grew between every peak every time, 21%, I think, 27%, and you named a year and the growth of maybe let's take 2026 as an example but it's exactly that 4-year span. I don't think revenue is going to be flat to 2022, especially how was it was compressed in 2022 and especially (inaudible).

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

How much revenue do you think you gave up or left on the table in by '21 and '22 because of the constraints you had?

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Look, we have done that discussion internally; it's significant, and it was concentrated on the three markets I've mentioned.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Because it really is interesting if you actually look at the data over the last like four, five years. I mean, you clearly did lose share. I mean, is this the primary reason? Because it wasn't just analog -- it was analog, and it was embedded. If I just look like strictly just at China as well, I'm sure we'll get to China, but everybody is worried about the Chinese taking share, and like broadly the multinational analog players have been gaining share in China except for you. Like you've been losing share in China over the last several years if you just the data. Do you think it was just all because of constraints? Do you think there was something else going on? And is there anything changing there?

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

So yes, first, as we like to talk about market share, as you see there is -- we have forecasted Q2. I think revenue is building momentum. Let it play out, okay? And we are not done with the asynchronous market (inaudible) inventory digestion. So let's go through this. But I will say that it is a big part of the issue. I will say that the decisions were to -- how to select the customers in which you will have to take a step backwards. I mentioned the markets. And in China, we had some big customers on the consumer side, and we had to give up some of the sockets. But they see what we are doing right now, and they're willing to entertain us, and we are going to fight hard and get back on the board. So that's the China comment. And I can talk more about China later. But to me, compression.

The second point, and I was just about to say something -- how we peaked in '22 -- and analog peaked in '22, and embedded actually peaked a year after, the middle of '23. But if you think about the pricing move of Texas Instruments versus the competition, and I listen to all the numbers,



and I look at (inaudible) -- we have to distinguish between ASPs and pricing. It's not always the same. There's a ton of mix going on there right now because of the asynchronous nature of the market. But if you look at -- just to listen to what people did and also hearing it from our customers, I think we were the most customer-friendly. We haven't hiked the price to the level that people did. And that's part of the compression of the peak in 2022. That's my belief. This is why I give ourselves a good chance to form a new peak. And also the probability is very important, Stacy. How bad will it be to have the opportunity again in '26 and not execute? That would be devastating for the company, and we are not going to let that happen.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Yes. I mean your inventory strategy flows into this is correct. So I find it interesting that -- I wondered about -- I know you guys were constrained, but at the same time, you were also building a ton of inventory, and you still are -- and again, I'm not going to -- I understand why, I understand the whole idea of the lifetime of the product as we move on, it doesn't go stale. Did you just build the wrong kind of inventory like at that point? Was it just hard to match what you built with (inaudible).

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

The beginning of COVID maybe.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

The beginning. (inaudible) Yet like anecdotally a lot of the constraints were coming from Tl.

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

So let's be fair. Maybe we built a ton of inventory of -- I wish we had built two tons of inventory. Okay. So it was not the wrong inventory. It was the right one.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Not enough of it?

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

Not enough. Because that's why we were flying high at the beginning of the upcycle because we had inventory. We were unique there. We had product on the shelf.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

You were the only ones that actually decided to keep running on COVID. Everybody else shut down. It was a problem, right?

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Correct. I don't think it was well received at the time, but all we wish right now we had more, right? And that's what guides our current inventory investment, which it's the right part because we have the right data to know it's the right parts. And we think it's going to step up very well, especially if the surge is aggressive. And at least I want to prepare at least to similar historical surges. Stacy, if you look -- I know you look at the units. You



look at unit spend. Forget about TI. Look at the market without memory. We're below 2019 growth, right? Are there more sockets for every end equipment? There are. How come we are lower than the trend line? It's going to catch up. It always does.

### Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

(inaudible) versus 2019 was the last industry downturn, '23 was a downturn. Non-memory revenues in '23 were down about 2% year over year. It wasn't a bad down year, but units were – revenues were down -- units were down almost 20%. The only other worst year for year-over-year unit growth was 2001.

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Correct.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

And units (inaudible) were below the prior downtown, and ASPs were 30% higher for the industry and ex-memory (inaudible).

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes. We started the history as well, and by the way, we look at what WSTS comes with soon in a couple of days for April. But I will tell you that I think it's going to break a new record of peak to trough on units even versus the year 2000 bubble. To me, we have to prepare because that thing always gets us up. No one believes it during the trough, but when you see it, it's too late.

### Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

So let's talk about that. Broadly, it's been a weird cycle, right? I mean it's been very asynchronous, and we've had different end markets that have like peaked and troughed and leveled off at different points. It does look like industrial has rolled over really, really hard. A lot of these guys are down 40% or whatever peak to trough. Auto starting to -- it's not collapsing, I wouldn't say, but it's starting to roll over. It does look like broadly for most – for you and most of your peers -- people are calling Q2 as the bottom. And you talked about like sort of like hopeful signs of recovery. I think there's still some controversy over the shape and trajectory that (inaudible). But like what are you seeing in, I guess, in the near term? I'm looking at the second half and maybe in the (inaudible). Are we seeing actual signs of like robust recovery yet? Or is it V-shaped or U-shaped, or like, and I know you guys usually don't talk about cycle. In this forum, I don't usually like to like drill a ton into short-term questions. Especially if you're actually looking for a recovery and preparing for it, what are you seeing in terms of where that recovery might actually be starting now?

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

Look, the duration of the downcycle was largely because of the asynchronous nature. I think you're right. And we just see a first in, first out behavior on everything. If you look at markets, call it PE first in, call it...

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

It's kind of stabilized for you guys.



#### Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

Now it's gained momentum. Yes. So it's driving growth or is year-over-year growth, and it's accelerating. And you can see that, I believe, I mean, we'll have a good PE year in 2024.

You think about the geographies, China first, with the upcycle. China first with the downcycle. Are we seeing some signs in China that things can recover we mentioned earlier (inaudible). I think that's going to look better as we go. Industrial, to your point, the last one to maybe together with automotive. But in a different, different levels. Industrial is a very strong correction. Over there, I don't think it's share, it's inventory. It's just inventory overbuilding and now just in -- I will say that automotive, I'm excited about for revenue for TI. I mentioned '10 to 2013 to 2023, 10% growth for industrial and automotive. Auto did 15%, which I believe is above market.

**Stacy Rasgon** - Sanford C. Bernstein & Co., LLC. - Analyst

(inaudible)

#### Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

(inaudible) It's actually 34 and growing. So if you think about last it grew 17%, if you think about Q1, it declined year-over-year for the first time, at minus 2%. So very low-single digit. But I think we are seeing a very shallow trough. So and I think it's related to secular growth in automotive. Second, our position, I think our position is good. So I'm excited about automotive. I think we see momentum building sooner than later. So that's on the automotive side.

And yes, we've guided mid-single digits, I think, for Q2. I think in some areas, as I mentioned, like consumer, maybe enterprise, and communications following. And I think industrial will be the last to correct. Because it declined more or less -- the tough sector in industrial decline during the end of last year.

Last point I will make on industrial, and you know it's hundreds of end equipment. Not every one is the same. Power tools and thermostats, call it, appliances, building automation are already looking to gain momentum. Factory automation, medical are still in the correction phase. So every end equipment has its own. Now you asked about the -- when the market goes back up, when all these -- immediately when I see a decline, I like to count to four quarters. When all these markets go through one year of inventory correction, we are somewhere at the end of '24 when it's done. So we can think about an opportunity moving forward.

### Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Is it fair to say that you guys clearly do a lot more inhouse, more control, everything you're doing is you have more control over your own destiny. But you don't have as much of a channel, you don't have as much of a buffer. Is it fair to say that you're what you're seeing is likely closer to what your end customers are actually seeing versus having that buffer between [you and your customers, or distribution]. People look at you as one of the first to actually start to see the decline, right? Maybe for that reason, people wonder -- is that a...

### Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

(inaudible) You make a valid cause. And we can see it mainly when we go just-in-time to customers. So not only we are direct, some of the customers work with consignment. We build to a buffer, and they consume it real time. So I believe we can see real-time behavior of customers, and automotive is a great example. Most of the customer base is on consignment, and I think you get real-time signals. On the industrial side, there is a heavier reliance on the channel, on the distribution. Our footprint is not large...



Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

What's your distribution revenue mix? It's not that high anymore.

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

25% in '23? Yes. And yes, probably going to circle around that 25, maybe a little bit lower over time. But we also are excited about the investment in the other part of the dual channel, we call it, which is our website or Tl.com for e-commerce. That's something that we are modernizing, and we like the investment we're making there.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

What are your sales going through there, by the way? You gave some numbers on the cash a couple of years ago only happen...

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

I mean it did very well in -- during the upturn because that's where customers went when they needed immediate availability. I think it stabilized to a lower level, but it's still much more significant versus pre-COVID. So -- and it can establish -- and we are making investments over there, and this is where data, information and you can use bigger words are going to start in the future. We think this last mile as we call it, is kind of messy in our industry. And why not modernize it and take advantage of the IT development in the world to serve our customers better. I think our customers expect that and those who are getting on that modernized channel are excited about that.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

I guess it gives you like an early view to what customers...

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

It's all real time. It's all real time.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

I do want to talk about China.

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

China, yes.

**Stacy Rasgon** - Sanford C. Bernstein & Co., LLC. - Analyst

So even beyond TI, like a lot of investors, I mean, they see just a ton of capacity coming on in China as well. Questions of what is going to go into those fabs. It's all lagging edge because they can't do it again. So people clearly worry about potential for like local Chinese replacement particularly in Analog and other lagging edge technologies. And I think you guys have, I don't know, 50% of your revenue goes into China though -- I don't think that -- a lot of that's multinationals. I guess what's the local consumption in China? Do you have 20%?



#### Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

So I think you quoted a ship-to number including -- think about our largest customer. That's China. I think it's not reporting that ship to number as relevant. So we are now reporting -- we are reporting headquartered-in-China revenue. The customers headquartered in China. I think we see Q1 is 17%, 17% equals higher during COVID. But also, as I said, China was first to enter the downcycle, and I think it's probably going to be -- usually it's first in, first out, you see that.

And just on the China side, let's put things in perspective about capacity. China is about 17% to 20% of world GDP. So in the market opportunity related to GDP we think it's still a very important viable market that we want to compete in. And they have enough capacity to serve them and more, because their build-up of fab is not, I think, for China only. They have ambitions to get into all markets and geographies. I think about these parts sitting in our servers, in our medical equipment, in EVs. I'm not excited about it. I'm not sure the U.S. government is excited about it. I know that my customer is not excited about it.

So this is where this geopolitically dependable capacity is coming in big role on the future of Chinese. And I think it's very, very important to [to our customers and is one of] the parameters of how customers make decisions.

So that capacity, again, we compete, we see in China, for China mainly. We see subsets of competitors, all fabless or predominantly fabless, and we compete. Luckily, the set of competitive advantages that we've built over the years — technology and manufacturing, as we said, relying on our sales cost advantage, the breadth of the portfolio, which is very unique versus the set of competitors in China. The China advantage, the reach [of our channels, we] touch so many customers, some of them very small that the local players don't even know. And last but not least, the position we've built in industrial and on automotive. It's very similar in China, also close to 80% of our revenue in China is in industrial and automotive. I give ourselves a good chance to compete, but it is becoming more competitive, and that's what's going on from a high level over there.

### Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Do you think the pricing trends in China are different from what you've seen elsewhere in the world? Like do you compete harder in China versus where you have to compete up?

### Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

I do because I think the local -- or the emerging competition in China is highly accepted in China. So -- and I think TI can gain premium over there because we have the breadth, we have the quality, we've been a trusted supplier for many years, especially in industrial and automotive. There is some moat around this type of market. But these guys are capable. I don't want my team to think they can do only very simple parts because I've seen these people building more and more complex sets of solutions. And we need to compete across the board -- on the catalog type of more general purpose parts, but also on the application specific where AUPs are higher. And of course, the market price is set by them. But it's not a walkaway market price point simply because we have the cost competitiveness to play that game.

#### Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

I guess to touch on that concept of geopolitically dependable capacity. How important is the Chips Act? If it wasn't for the Chips Act, would you be pursuing the same CapEx strategy that you're pursuing right now?

#### Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes, I think we talked about it last year, and look, you -- every time you make an investment, you look at the probabilities and affordability, and it's always a set of parameters. And we were very clear that we decided to increase our investment or [CapEx] (corrected by company after the call) in capacity because we got some help -- also because we got some help from the fact. I think we had a plan at the beginning, hey, let's build for lower



level of revenue opportunity. And we said, hey, let's take it a step up because we are getting help. Unfortunately, I cannot communicate where we are because we are not done yet. So we have submitted the application. Of course, the ITC is helping. But beyond the ITC...

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

The ITC is actually bigger, right?

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

I mean, it's expected to be bigger, with 25% of your investments in the U.S., but the grants are also important. And we are waiting to see where that lands, and I think we've submitted it end of last year, and we should hear I believe in the coming months where we landed. So this is definitely helping. But compare that to what China does for their industry. Help is important for us to compete versus SMIC and other players.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Got it. Got it. I want to ask about a couple of the growth markets that might your top line[PD1][PD2] (inaudible). So how much EV exposure does TI -- because I was -- it's not really, really a joke like I would say that you were as happy to sell like the headlight controller of the cars as -- or are you in anything else, right? It doesn't seem to be -- you're just playing the general content trend. But like how do we think about EVs and their impact on...

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

First, let me -- I don't know if it's correction or clarification.

**Stacy Rasgon** - Sanford C. Bernstein & Co., LLC. - Analyst

Correct or clarify anything I say.

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Automotive, from a very complex ADAS processor, tens of dollars, all the way to lighting controllers. So I -- we don't like to brag about radar solutions, the 77 gigahertz (inaudible) right now. Or our FPD-link high-speed connectivity that runs at hundreds of millions a year and OBC controller for onboard chargers with our DSP solutions, but we ship them, and we ship them at a high volume. But we also ship, as you said, a bunch of catalog parts for automotive, very proud of, and they all end up with a very significant opportunity in automotive. Automotive, I think, right now in Q1 was the size of industrial already, they were on the same level. And I would say that the breadth of the opportunity is only growing. Now we go to EV, more than 2x, Stacy, when you look at our exposure and our opportunity...

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Like how much of your auto revenue today is EV? I don't know if -- you said there's going to be overlap, I'm assuming...

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

I don't have that right now in front me, but it's significant. And the beauty of it is EVs are not fully run the risk of reduction, right? So there is room to grow over there. But as I talked about the last decade, it was mainly on ICE. And I think what the future 10 years is mainly on EV.



Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Do you think your content in EV is 2x you said?

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

Our opportunity on EV and we've done that math and we kind of look at the dollar opportunity, more than \$1,000, and it's...

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

How much TI -- what's the average TI content in the average car?

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Today, we are shipping hundreds of dollars. In some cases, close to \$1,000, in some cases lower. But very high content. It depends on the how many cameras, how many screens, it depends on the vehicle tier. But if you look at the high tier, well above \$500 a vehicle.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Got it. And then I'd be remiss -- I don't know if you want to hear but I have to ask about Al. Like is there any -- is there an Al play for TI? Like where do you guys benefit from that?

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes, a growing opportunity. So let's say, the biggest one I'm excited about is cloud and servers, and the compute guys, they are starting to power in levels I couldn't imagine. About 1,000 amps going into a processor, and you start to see close to a kilowatt or higher. And if you look at our roadmap, we just want to be higher, right? So the way you serve that is what we call a multiphase convert solution. Many, many parts going and serving these processors. I'm excited about Sherman 1, because these are our newest technologies.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

What node does Sherman go down to?

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

65-nanometer. We think we are building the best BCD process on earth. And in terms of the opportunity to serve a very fast growing market from the U.S. again, because you want these PMIC parts to come from a dependable source. I see growing opportunity, the product portfolio is there. We are talking with all the big ones, and I'm excited about the progress. We are also gaining share for the platform, but I think they are still kind of only scratching the surface. I think at the peak, it ran -- actually look to it, let me see, close to \$1 billion business, if you look at the datacom in the server and also power, but power is the biggest one, okay. So that's on AI.

The second part, and maybe I should have mentioned it even last year when you asked me the question, think about the edge. We have a good low power processing business. Think about our DSP days. What are the neural network and machine learning. These are all matrix manipulation. We have very good accelerators that we've developed over the years. They sit in our processors. And when you think about inference, TI is there. DMS, or driving monitoring systems, we have a leading solution, winning us many, many OEMs, and that is using that machine learning accelerator.



Think about -- even go to arc detection in new energy infrastructure, Tl's DSPs are solving that problem as well. So Al at the edge for inference is a growing opportunity for the company. And we have early wins. The last one early, but robotics on content per robot for the company is significant. Tens of microcontrollers, some of them with machine vision capabilities. So that is still -- think about the humanoid -- human robotics, they have a lot of content for...

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Do you that's going to be a thing, humanoid robots?

Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

I know that there is a lot of content per robot. I just know how to serve the end equipment. Calling out how many units will be sold in the future, I was never good enough to guess that. Winning the socket is where we are busy.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

I wanted to ask a little bit more about like industry structure, particularly on M&A. So like TI has not really participated in like large-scale M&A for quite a while. Like you've had some competitors who have, and I'd argue have been fairly successful at it. What are your thoughts on that view? Is there anything -- I guess, do you need like -- have your priorities on what you would be looking for if you were looking for deals? Have those changed at all over the years? Or is that what kind of kept you out of it?

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Look, we -- I think nothing has changed there. We are always looking. It's -- we always said it's going to be analog-centric. We always look at if there is a technology that can complement our portfolio. We don't have a lot there when you look at it, even if -- take an example of a wide band gap technology like GaN, we are investing this internally. So I think we many times prefer the make versus the buy opportunity. But depending on the right time, and also we need to think about affordability. Right now, we are so busy in getting ahead on our capacity and getting back to that free cash flow per share trend line that we mentioned. That's a priority right now. But as we go back to the trend, maybe opportunities will pop up, and TI will make a move. But at least, what I like about our position right now, there is nothing that we really need to build the scale and to set the future for the company.

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

And I guess talk about the free cash per trend. Free cash flow per share trend. Do you have a number in mind? I know you've given like sort of revenue capacity like kind of numbers. And if you go back to the Elliott letter, I know they were coming out at \$9. I think it was \$11 in '27. And I presume you guys have done the math on, hey, if we cut our CapEx (inaudible), free cash flow per share goes up. But you have some idea of like what that free cash flow per share trend ought to get you in '26 or '27 or 2030 or like whatever it is? Like what are we shooting for here?

**Haviv llan** - Texas Instruments Inc - President, Chief Executive Officer, Director

Yes. I thought we were very -- I think we had a slide in capital management...

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

That why I'm asking. I can't remember what the number was.



Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Okay. It's 12 in 2026 and \$13.3 in 2027 -- not that I remember, okay. But this trend line -- this trend line...

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

That was not a target. That was to...

#### Haviv llan - Texas Instruments Inc - President, Chief Executive Officer, Director

No. But the trend line is helpful (inaudible), I think like -- or they said it, this is what guides us and that trend line. We haven't shown a trend line 15 years they say, not that I'm picking on you. But we showed 2004, I think, through 2022, and they extrapolated that trend line through 2030. So when I think about when you get back, it's within that time frame, and I don't have 2030 in my brain, okay? I see the modular capacity plan coming in play as soon as back end of '26 to '27. And that's the expectation. I mean that's (inaudible). Of course, revenue has to do something during that time. But even if revenue wants to be very poor, then what do you do with CapEx? It's done. You let it fall through, and it will fall very nicely. So we have run all kinds of scenarios, and I'm excited about it, and the beauty of where we are, I don't think you have two or three cycles to get that to come into play. So we are I think, marching into the next cycle. It's the first time we have predicted or guided for sequential growth after two years, I think. Two years (inaudible)...

Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

Actually down (inaudible)

### Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Something like that. I guided the first (inaudible). And it's easier to invest when you have revenue momentum on your side. So I think that's -- when I compare sitting here a year ago, I see markets joining the inventory digestion, and I think a big part of it is behind us. There is momentum building on revenue, the factory we have built is operating, using a wonderful cost, wonderful alternative cost, and as revenue grows, I think that will come to fruition very quickly. So I'm super excited about that thing.

### Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

That makes sense. Look, we've got about a minute and a half left. You've kind of been doing it, but I'll give you your soapbox. Why should investors buy TI stock today?

### Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Okay. First, I think, and again, the investment, yes, we make investments thinking like long-term owners. And I think about long term as 10 or 15 years, but you don't need to wait 10 or 15 years for this investment to come to fruition. We are a very unique supplier in terms of have a combination of enough capacity, the cost competitive affordable positions, and very dependable. And as customers care more and more about it and as revenue starts to build momentum again after a very tough cycle, I think the company could not be in better state as it is today. I'm excited about the future, and I'm excited for us, for all of our shareholders. So that would be my short pitch.



Stacy Rasgon - Sanford C. Bernstein & Co., LLC. - Analyst

And I think that's a good place to leave it (inaudible). Thank you so much.

Haviv Ilan - Texas Instruments Inc - President, Chief Executive Officer, Director

Thank you, Stacy.

#### **Editor**

[PD1] [PD2] Guessing here, trying to complete the thought.

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