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OVERVIEW:

Company Summary

REFINITIV

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PRESENTATION

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Good morning, and welcome to the Texas Instruments 2025 capital management call. I'm Dave Pahl, head of Investor Relations, and I'm joined by our Chief Executive Officer Haviv Ilan, and our Chief Financial Officer Rafael Lizardi.

This call is being broadcast live over the web and can be accessed through our website at ti.com/ir. In addition, today's call is being recorded and will be available via replay on our website, along with the complete presentation and prepared remarks, for your convenience.

This call will include forward-looking statements that involve risks and uncertainties that could cause TI's results to differ materially from management's current expectations. We encourage you to review the notice regarding forward-looking statements contained in our most recent earnings release as well as our most recent SEC filings for a more complete description.

With that, let me turn it over to Haviv.

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

Thanks, Dave. Let me start by welcoming you to our 2025 capital management call.

During today's presentation, we'll share more about our approach to capital allocation and, in particular, our investments to support the opportunity ahead and provide geopolitically dependable capacity. Companies and investors are looking at a world where the semiconductor cycle is playing out at the same time that geopolitics are reshaping supply chains.

We are now nearly 70% through a six-year elevated CapEx cycle that, when completed, will uniquely position TI to deliver dependable, low-cost 300mm capacity, scalability of CapEx, including capacity modularity, and free cash flow per share growth across a range of market conditions.

Today we'll begin with a recap of our objective, strategy and business model that is built on our sustainable competitive advantages. We will review our scorecard for 2024 and updates for 2025. Then, I will provide additional insight into our growth expectations, where we continue to see excellent opportunities across all of our markets, and especially in industrial and automotive. Rafael will then provide a brief update on our progress in strengthening our competitive advantages. And lastly, we will review our free cash flow per share performance and wrap up with a review of our cash returns.

If you haven't already, I encourage you to review our investor overview, which provides insight into our business model and competitive advantages. It is available on our investor relations website at ti.com/ir.

The following guiding principles from that overview will help frame our discussion today. At TI, we run the company with the mindset of being a long-term owner. We believe that growth of free cash flow per share is the primary driver of long-term value. Our ambitions and values are integral to how we build TI stronger; when we're successful in achieving these ambitions, our employees, our customers, communities, and shareholders all win. Our strategy is comprised of a great business model, a disciplined approach to capital allocation and a focus on efficiency. Our business model is built around four sustainable competitive advantages: manufacturing and technology, broad product portfolio, reach of our market channels, and diverse and long-lived positions. After investments in the business to grow free cash flow for the long term, the remaining cash will be returned over time via dividends and share repurchases.

With that as a framework, our objective is to maximize long-term growth of free cash flow per share, which we believe is the best metric to judge our performance and generates long-term value for the owners of the company.

Our strategy to achieve this objective has three elements. First, a great business model that is focused on analog and embedded processing products and built around four sustainable competitive advantages, advantages that we continue to invest in and make even stronger. Second, discipline in allocating capital to the best opportunities. This spans how we select R&D projects, develop new capabilities, invest in manufacturing capacity or how we think about acquisitions and returning cash to our owners. And third, striving to constantly increase our efficiency, which is about achieving more output for every dollar of input.

Our strategy is designed around four sustainable competitive advantages that, in combination, provide tangible benefits and are difficult to replicate.

First, at the bottom of this slide, we start with a foundation of manufacturing and technology. This provides us with lower costs and greater control of our supply chain. The advantage of lower cost has always been recognized as a benefit. The last few years have increasingly highlighted the importance of owning and controlling our supply chain, including geopolitically dependable manufacturing, process technology and packaging.

Our second competitive advantage is the broad portfolio of analog and embedded processing products. These products provide us more opportunities per customer and more value for our investments.

Third, the reach of our market channels, including our sales team and TI.com. This provides access to more customers, projects, sockets per project and insight into their needs.

And lastly, we have diverse and long-lived positions, resulting in less single point dependency and longer returns on our investments.

With that, I'll turn it over to Rafael, and he'll review our approach to capital management and the scorecard.

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Thanks, Haviv. We've shared our capital management scorecard with you since 2013.

You can see that the scorecard includes descriptions for our long-term objectives for each metric as well as the target range. The long-term objective provides insight into how we make decisions and run the business, as opposed to only a number or a range.

In 2024, we again met our objectives. Capital expenditures were about $5 billion, as planned, and cash return was about $6 billion, which is a reflection of our continued commitment to returning all free cash flow via dividends and repurchases over time.

We are pleased with the consistency of these results over time that have been enabled by our business model, discipline in allocating capital and constantly striving to increase our efficiency.

For our 2025 scorecard, we have updated our CapEx targets to reflect the estimates we provided during our August 2024 off-cycle call. We are expecting CapEx in 2025 to be about $5 billion and 2026 to be in the range of $2 billion to $5 billion. For 2027 and beyond, CapEx will depend on revenue and expected growth. Our long-term objective remains the same, to support new technology development, revenue growth and extend our low-cost manufacturing advantage.

In the 10-year period spanning 2015 to 2024, we've allocated about $100 billion of capital. Given that magnitude, you can appreciate why capital allocation is a job we take quite seriously and one that has a significant impact on owner returns.

Our largest category of capital allocation, about half of the total, has been investments in critical areas that drive organic growth, such as R&D, sales and marketing, capital expenditures and inventory. For reference, R&D and capital expenditures have accounted for the majority of our investments over this 10-year period.

As we previously mentioned, we have long had a commitment to return all free cash flow to owners over time via dividends and repurchases. For dividends, our objective is to appeal to a broader set of investors, and we focus on their sustainability and growth, for obvious reasons. For repurchases, our objective is the accretive capture of future free cash flow for long-term owners.

And, finally, potential acquisitions are evaluated through two primary factors that have remained unchanged: It must be a strategic match, and it must meet certain financial objectives.

For simplicity, we have not included changes in net debt, which over this 10-year period increased about $4.9 billion.

Now, I would like to turn it back over to Haviv to share additional insight into our growth expectations.

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

Thanks, Rafael. I'd like to share how our markets and portfolio are strengthening and what gives us the confidence in our ability to grow in the coming years.

First, let me make a few comments about the overall semiconductor cycle. This slide, which we have shared for the last few years, shows semiconductor units shipped, excluding memory, on a trailing 12-month basis over the past 30 years, as reported by WSTS.

While the current market remains generally weak, unit shipments are beginning to trend upwards. But the more important element is the gray line, which shows the long-term trend and grows consistently over time. History has shown the importance of staying focused on the opportunity ahead, even through weak periods of the semiconductor cycle.

Our approach is to have a disciplined plan with our capital spending, with the gray line in mind. And we are prepared for a range of market recovery scenarios.

As I showed in August, let me remind you of how TI's portfolio and market positions have evolved and strengthened through the last several market cycles.

During the last decade, we have worked hard to focus our product portfolio on analog and embedded processing. As a result, our "Other" business now primarily consists of DLP products and calculators and is small and stable. Our Analog and Embedded businesses now represent more than 90% of our revenue. Our belief and expectation are that both Analog and Embedded will contribute to our future growth.

While we see good opportunities in all of our markets, we biased our investments to industrial and automotive. Our work during the past decade has further strengthened our position. This includes investments in process technology, package technology and the expansion of our product portfolio. In addition, our work to build closer direct relationships with our customers allows us to better service tens of thousands of customers in the industrial and automotive markets. These two large markets will likely continue to be fast growing markets, given the secular content growth.

We are seeing good opportunities in all of our end markets, and I would like to expand a bit on how our broad portfolio of general-purpose and application-specific analog and embedded products serve the industrial and automotive markets.

While both industrial and automotive revenue declined in 2024, our confidence remains high in the opportunity ahead, especially given the growing semiconductor content in these markets. While last year these markets were at low levels and going through inventory correction, combined, our industrial and automotive revenue grew at a 7% CAGR from 2013 through 2024.

When you look at automotive, we are continuing to see growing opportunities in automotive subsystems. For example, vehicles have gone from having no advanced driver assistance features, to having standard features like back-up cameras, to full surround view systems with radar and driver monitoring capabilities. Lighting systems now provide beam shaping and adjustable intensity. In addition, high accuracy battery cell monitoring improves reliability and endurance of automotive battery packs. The combination of both our general-purpose products and ASSPs are needed to support these growing trends.

These are just a few examples of the many subsystems, which are rapidly becoming standard features in all vehicles.

It's important to recognize that the expansion of content is happening across all vehicle types: battery, hybrid and internal combustion engines. As a result, our exposure in automotive is broad and growing across customers and geographies.

In addition, industrial spans many sectors, including industrial automation, robotics, medical, building automation and energy infrastructure, to name a few. This end market made up more than $5 billion of TI's revenue in 2024. Similar to automotive, our broad portfolio of general-purpose and application-specific products are able to serve the industrial market for years.

Let me share more detail on the diversity of our industrial customer base and where we are seeing growing opportunities across sectors.

Our positions in industrial are diverse and long-lived, with semiconductor content growing across many sectors. The pie charts on the left show we have a diverse customer base, purchasing a wide range of TI's products. Our top 100 customers make up about 30% of our industrial revenue. And within each customer, there is a high degree of product diversity. You can see an example of one customer, who purchases more than 5,000 different products from TI. This characteristic is not unique and can be seen throughout our customer base in industrial.

Now let me show an example within one area where we are seeing secular content growth. If you look at a smart factory line, it can have tens of thousands of dollars of content, spread across thousands of sockets. The use of more sensors improves safety and enables predictive maintenance, and more motor drives enable precise and accurate movement. These improvements in automation drive a need for greater connectivity and real-time edge processing as well as increased power density and backup requirements.

These factory upgrades are evolving and will continue to play an expanding role in global manufacturing. Our portfolio of general-purpose and application-specific standard products are well-equipped to meet this need.

These trends reiterate the importance of the industrial end market, which is comprised of hundreds of thousands of long-lived sockets.

To summarize, our market exposure has grown from about 40% to about 70% of revenue in industrial and automotive, which will be excellent markets for our long-term growth.

Second, we have a stronger product portfolio. The breadth of our analog and embedded processing products, which span both general-purpose and application-specific, combined with our investments in process and package technologies, have strengthened our portfolio offering.

As a result, we are positioned to grow. Our exposure to large, fast growing markets and our strong product portfolio position us to capture the opportunity ahead.

Now, I'll turn it back over to Rafael to discuss our progress in strengthening our competitive advantages

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Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Thanks, Haviv. To start, I'll update you on our manufacturing and technology competitive advantage.

We mentioned earlier that for each of our competitive advantages, we work to ensure that they provide tangible benefits and are difficult to replicate.

Our investments in manufacturing and technology, particularly in 300mm wafer fab capacity, help to extend our cost advantage and give us greater control of our supply chain. Today we will review the progress of our capacity roadmap that will support growth over the long term.

Before we do that, I'd like to provide some insight into the benefits of owning and controlling our supply chain and the benefits of 300mm.

There are several benefits to owning and controlling our supply chain. First, these investments provide the capacity necessary to support growth. Second, we have more control of our supply chain, as more than 90% of our wafers and assembly will be manufactured internally. Third, our process technology is focused on 28nm to 130nm, which is optimized for analog and embedded products. Lastly, we have a structural cost advantage because of our increasing 300mm wafer fab footprint.

All of these benefits allow us to deliver geopolitically dependable capacity, with equipment and process technologies that last for decades.

This example, which we have shared for many years, is an illustration of the cost benefit of internal 300mm wafer production. The combination of internal manufacturing, along with 300mm wafer production, provides lower cost, and we will be increasing both our percentage of wafers produced internally and on 300mm over the next several years.

In August, we walked through three phases of our 300mm wafer fab strategy.

As a reminder, the focus of Phase 1 is to support 300mm transfer and incremental growth by equipping RFAB2 and LFAB1.

Phase 2 is all about new fab preparation and primarily includes long lead time work that spans several years before a fab can produce a single wafer. This includes preparedness at LFAB2, SM1 and SM2 and is what allows us to be in a position of modular capacity expansion.

Phase 3 will allow us to equip and ramp fabs according to customer demand without any re-qualifications, and we will be able to quickly respond to what the market needs.

We will scale CapEx according to demand and ultimately deliver free cash flow per share growth across a range of market conditions.

Our 300mm wafer fab manufacturing investment spans across three sites in Richardson, Lehi and Sherman. Here, you can see more information across each fab.

Execution across all of these projects is progressing very well, and we and our customers remain pleased with the progress. RFAB2, which was built entirely through the COVID-19 pandemic, continues to ramp with new tools. We are now more than 50% ramped, with new tool installations continuing every day. In LFAB1, we have qualified products on 65nm and 45nm. Development continues on our 28nm process technology. And just outside of LFAB1, construction is underway for LFAB2. In Sherman, we continue installing tools on the floor in SM1, and we are beginning technology qualification. The construction of SM2 is progressing well, with the shell expected to be complete this year.

This execution is enabling us to continue our progress toward several of our key metrics, which I will show in a moment.

Our CapEx investments remain important to support our capacity build-out plans and position the company for growth and also provide flexibility.

We plan to spend about $5 billion in CapEx in 2025.

For 2026, CapEx is expected to be between $2 billion to $5 billion. These levels of CapEx allow us to meet the strategic objectives of Phase 1 to support external transfers and incremental growth. They also support the important work in Phase 2 of preparing our new fabs for the future. This includes long lead time work that is not dependent on near-term revenue. Lastly, it balances other considerations, such as benefits related to the U.S. CHIPS Act investment tax credit. As we execute, we'll continue to do so efficiently and optimize our spend, consistent with our strategy.

In 2027 and beyond, you'll see a range of CapEx levels, as this will be determined based on revenue and expected revenue growth.

Finally, at the bottom of the slide, we have highlighted several key metrics that this roadmap is already beginning to deliver, which will continue through the end of the decade. In 2024 we made progress on growing the percentage of wafers and assembly manufactured internally, as well as grew our percentage of wafers on 300mm from around 40% to 60%.

By 2030, we expect more than 95% of our wafers to be sourced internally, with more than 80% on 300mm and more than 90% assembly internally. Overall, this will provide us with lower costs and greater control of our supply chain and provides our customers geopolitically dependable capacity.

Now I'd like to make a few comments about R&D. We allocate our R&D investments to growth opportunities to strengthen our technology and product portfolio, while improving diversity and longevity.

On this slide, we summarize the current direction of our R&D investments and our revenue breakdown by end market.

For the revenue breakdown, we have provided data for 2013, 2023, and 2024, so you can get a sense of how the portfolio has changed over the longer term as well as compared to last year.

We can find great investment opportunities in all of these markets. As shown in the second column, the direction of our R&D investments is consistent with prior years.

Our investments in R&D continue to be biased towards industrial and automotive and continue to be up broadly, reflecting our belief that these end markets will be fast growing markets due to growing semiconductor content. Next, personal electronics investments are steady. Enterprise systems investments are up in support of the growing opportunity in data centers. Communications investments are also steady. Other, which is shown for completeness, is primarily the calculator business where investment is flat and at low levels.

Here, you can see the strategic progress we have made in industrial and automotive. In 2024, those markets combined represent close to 70% of TI's revenue, compared to just 42% back in 2013.

Success in industrial and automotive therefore requires a long-term commitment and a willingness to invest broadly across sectors and product categories, both of which we have done and continue to do.

I would also like to share an update on progress in building closer direct relationships with our customers, which serves to strengthen and extend the reach of our market channels.

As a reminder, we believe that our customers increasingly desire the convenience and productivity of online relationships along with skilled customer and commercial support. This is a broad secular trend we all see around us in our daily lives.

Our multiyear investments in our sales and marketing team, TI.com, business processes and logistics uniquely position TI to lead this transition in the semiconductor industry and make designing and transacting with TI easier.

With these investments, customers have the choice of buying direct from TI via traditional backlog or through TI.com for immediate shipment, where they enjoy the convenience of online ordering and get the best price and availability. In 2024, about 80% of our revenue transacted directly, compared to about a third of our business in 2019. We have a strong infrastructure in place and are able to use data and intelligence to best support our customers and get them the parts they need.

Our reach of market channel advantage results in higher growth through access to more customers, projects, sockets per project, and better insight into our customer needs.

Now, I'd like to turn to free cash flow per share growth and cash returns.

First, it is helpful to consider how our operating cash flows are enabling our long-term investments. Specifically, operating cash flow in 2024 was $6.3 billion, at similar levels to 2023, as we continued to operate in a weaker market environment and positioned the company for the upturn by building about $500 million of inventory.

At the same time, CapEx was at $4.8 billion, or 31% of revenue, as we continued to make progress in building out our 300mm wafer fabs to strengthen our competitive advantages.

We have often said that the best measure to judge a company's performance over time is the growth of free cash flow per share, as that is what drives long-term value for our owners.

Here, we are showing our 2004 to 2022 free cash flow per share trend line continuing at the same rate through the end of the decade.

In 2024, free cash flow was $1.64 per share. As you can see, free cash flow per share will begin to approach the trend line in 2026 as growth returns and CapEx begins to moderate. You can see here, the range of free cash flow per share in 2026 is about $8 to $12. As such, we are prepared to support a rapid market recovery or persistently weak environment.

As a reminder, these estimates incorporate the benefit we expect to receive from the U.S. CHIPS Act investment tax credit, but does not include direct funding.

Beginning in 2027, free cash flow per share growth will be driven by revenue growth and our CapEx strategy. This underscores the strength of our business model, including the scalability of CapEx with modular capacity. This will allow us to deliver free cash flow per share growth aligned with the long-term trend line.

And finally, long-term free cash flow per share growth will continue to guide our decisions.

As mentioned before, our long-term objective is to provide a sustainable and growing dividend to appeal to a broader set of owners.

For 21 consecutive years, we have steadily increased our dividend, including a 5% increase in fourth quarter of 2024. These increases represent 10% for five-year and 16% for 10-year compound annual growth rates. As of January 31, 2025, the dividend yield was 2.8%.

Our objective in repurchasing shares is the accretive capture of future free cash flow for long-term owners.

While the ultimate assessment of return on investment of these purchases depends on the future cash flow stream, the track record of this approach is encouraging.

We have reduced shares outstanding 47% since 2004. We ended 2024 with about $20 billion in open authorizations, having bought back about $900 million worth of stock in 2024.

With respect to cash returns, in 2024, we returned $6.28 per share. Over the last 10 years, we have returned a total of 122% of free cash flow. Returns have grown at 13% since 2004.

It may be helpful to frame our performance versus others in the S&P 500. Our free cash flow generation puts TI in the 40th percentile and is a reflection of our decisions to invest to make the company stronger for the long term. Underlying this is our operating cash generation as a percent of revenue, where we rank in the 88th percentile.

Our cash returns put us in the 95th percentile and return on invested capital in the 68th percentile when compared to the S&P 500.

We believe our performance versus the S&P 500 is a reflection of our focus on growing free cash flow per share over the long term and the three elements of our strategy. First, a great business model that is built on our four competitive advantages -- advantages in which we are continuing to invest and make even stronger. Second, discipline in how we allocate our resources, focusing on the best product opportunities, as well as areas that strengthen and leverage our competitive advantages. And third, striving to constantly increase our efficiency, which is about achieving more output for every dollar of input.

We believe if we can continue to do these three things well, we should be able to grow free cash flow per share for a long time into the future. With that, let me turn it back over to Haviv.

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

Thanks, Rafael. Let me now wrap up my prepared remarks with a few summary comments.

As engineers, it's a privilege to get to pursue our passion of creating a better world by making electronics more affordable through semiconductors.

We were fortunate that our founders had the foresight to know that passion alone was not enough. Building a great company required a special culture to thrive for the long term, and we continue to build this culture stronger every day.

We will remain focused on the belief that long-term growth of free cash flow per share is the ultimate measure to generate value. We will invest to strengthen our competitive advantages, be disciplined in capital allocation and stay diligent in our pursuit of efficiencies.

You can count on us to stay true to our ambitions: to think like owners for the long term, adapt, and succeed in a world that's ever changing and behave in a way that makes us and our stakeholders proud. When we're successful, our employees, customers, communities, and shareholders all win.

Thank you. With that, I'll turn it back to Dave

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Thanks, Haviv. Operator, you can now open the lines for questions. (Event Instructions)

QUESTIONS AND ANSWERS

Operator

Thank you again. We will now be conducting a question-and-answer session. (Operator Instructions)

Joe Quatrochi, Wells Fargo.

Joe Quatrochi - *Wells Fargo - Analyst*

I just wanted to ask about the free cash flow ranges that you put out for 2026. In contemplating this, why do we not include the $1.6 billion of CHIPS Act direct funding? And I know that maybe not all of it hits in 2026, but just maybe help us understand just contemplating not including that in the free cash flow targets?

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Yeah, sure. I'll give you an answer on that. It's just that we don't know the timing of the cash related to the direct funding. It's dependent on milestones, and it's going to depend on how the Department of Commerce processes that, but we fully expect to get that cash at some point over the next few years.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Do you have any follow up, Joe?

Joe Quatrochi - *Wells Fargo - Analyst*

Yeah. And then just, I guess, as I think about like the direct grants, is there any help that you can provide in terms of how to think about the -- them applying to machinery and equipment versus building just given there's quite a bit different depreciable life there? I'm just trying to think about how that flows through the model for depreciation.

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

I'm sorry, could you repeat the first part of that question? I didn't quite get it.

Joe Quatrochi - *Wells Fargo - Analyst*

Yeah. Just the direct grants applying to machinery and equipment on the PP&E balance relative to buildings, trying to think about that mix because there's quite a bit different depreciable life of maturing equipment versus buildings?

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Yeah. The way that works, we accrue the $1.6 billion as a receivable. And now that decreases the value of the assets in the case of assets that we already built, like SM1 and SM2. For LFAB2, we haven't applied it yet, because we haven't built it yet. But then that decreases that value and therefore decreases the depreciation that will roll through. That is based on kind of weighted average of the useful lives for those assets. So it's -- it mixes the building and the equipment together to get to an answer to then roll that forward as lower depreciation.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Right. Maybe -- and just to add, SM1 and when we turned it on, it's beginning to depreciate. So that's beginning to flow through the --

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Right. In the case of SM1, that benefit is starting this quarter, in first quarter of '25.

Operator

Stacy Rasgon, Bernstein Research.

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

Haviv, I wanted to ask about these 2026 revenue scenarios. So I know these are not guides. I understand that. But at the same time, just given where you're running it, what do you really think is realistic? I mean you guys just cut utilizations 10 quarters into a downturn, which doesn't suggest to me that you see a snapback coming anytime soon.

I think even to get to the low end of those scenarios, you can need a pretty sizable snapback at some point over the next year, 1.5 years. So how really should we be thinking about like how realistic those scenarios are?

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

Yeah, Stacy, you and I have discussed it also, we met last year. Again, as you mentioned, we have not offered revenue guidance for 2026. We just want shareholders to understand what free cash flow can do as a function of revenue.

Now regarding your direct questions where we see the cycle, I think as I mentioned 10 days ago during our call, look, we are in a place where we can see in some markets and even in some geographies, a quick recovery. And I think that can expand very nicely in 2025 and 2026. So sitting right now in the beginning of '25, trying to call what '26 will do, I don't think it's going to be smart. As I said also in the call, when we'll see it, we'll call it.

To your point on the spend, look, it's obvious that there is higher probability to achieve the lower part of the options over there that we depicted versus the higher one. But our responsibility when allocating capital is to get prepared to a set of scenarios, and this is why we introduced in the August call, that flexibility we will have related to the 2026 CapEx investment.

So as we get to the end of this year, I think our visibility will be much higher. I think we will be able to tune our CapEx in 2026 versus the revenue that we see a high probability for. But right now, at the beginning of '25, I think it's going to be too soon to state where is it going to fall in 2026.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Any follow up?

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

Understood. I do. Thanks. Maybe just to follow up on that a little bit. So you talked about clearly, you'll have more flexibility, more visibility. Like if that -- if in '26, the revenue was to come in at say, $18 billion instead of $20 [billion], is there more flexibility on the CapEx to the downside or just

some of the other constraints around the ITC and everything sort of hold that CapEx at $2 billion as a minimum regardless of where the revenues might come in?

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

Yeah. And again, I think that's also a question that we have touched upon last year. In general, the short answer is no, although when we give a range of 2 to 3, obviously, if revenue wants to be lower than $20 billion, of course, will end to the lower part of the range.

The reason you see kind of a floor of investment is because we want to get the execution of the long lead time items completed. And I'm referring specifically to Sherman 1 and Sherman 2. In Sherman 1, it's the cleanroom and it's also the qualification of the two main technologies that will run in Sherman 1. And then for SM2, we want to complete the shell, as it was just way more effective to build these two shells together.

On the Lehi side, it's really to complete the shell of LFAB2 and get that also qualified and ready for ramp. So our commitment to continue our investment in 2026 is not related to ITC. It's related really to our commitment to our customers, to have a cleanroom footprint that can support any scenario that they will see -- or they will meet in the future. And that was a big importance for our customers.

Our customers are relying on us that we will be able to serve them not only now, which is very, very easy, when supply and demand are not matched and supply is abundant. But if you think about the next upcycle, we want to support our customers at the highest level. And I think we are going to be prepared to do just that.

Operator

Vivek Arya, Bank of America Securities.

Vivek Arya - *BofA Securities - Analyst*

For the first one, you are keeping a 25% to 35% free cash flow target for '25. I'm curious what kind of sales growth is required in '25 to -- given the $5 billion that you will have in CapEx? Because if I were to assume, whatever, 50%, 55% EBITDA margin, then $5 billion CapEx, it suggests sales will be somewhere in the high teens, right, or so, billion range? I just wanted to make sure that I'm doing my math right. And if not, what kind of sales range is required to achieve your 25% to 35% free cash flow target?

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Hey, let me answer it this way. That target is not meant for 2025 specifically. That's over the long term, that 25% to 35%. And roughly, that aligns -- not roughly, that aligns very well if you go to the slide, the slide of delivering free cash flow per share growth, aligns very well with our ambition to return to the free cash flow per share trend line. So as we get back to that trend line, the free cash flow percent of revenue will also get back to that range and potentially exceed that range, as we used to exceed it before the investments started.

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

And Vivek, let me just add regarding specifically on revenue when we think about the year, right, we talked around this topic. And even just now with Stacy, over the last several quarters. When the market returns to trend line, it does it very quickly. We've seen examples of that in our personal electronics business. We are seeing this on the enterprise side. And also, we saw it in a geography like China.

When -- of course, when you're hovering around the trough, it feels that the sun will never shine again, but it does. And usually, it comes out quickly, okay? So if you just think about the first quarter for TI and even our guidance at the midpoint -- and I said that 10 days ago, we are looking at a

low-single digit decline sequentially, but the company at the midpoint is around 7% growth for the first quarter. And I think it positions the company to have a very good start for 2025, and we are prepared for this scenario.

I think the industrial market has hovered around the bottom for a long time. I think as we said last year, the automotive correction is still expected to be shallow. And I think 2025 has to be played out, but TI is extremely well positioned to support rapid growth when it wants to come.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Any follow up, Vivek?

Vivek Arya - *BofA Securities - Analyst*

Yeah. Thank you, Dave. So my follow-up is on your Embedded business. I think Haviv you suggested 2013 as a baseline year, going out to '24. If I look at your Embedded business, there was no growth -- in that time period, was $2.5 billion in 2013, same in '24. And if I look at the last five years, it has actually declined since 2019.

So I'm curious, what has been different in Embedded historically? What are you planning to change? And if it doesn't work, will TI need to consider inorganic growth for your Embedded business? Thank you.

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

Yeah. Thanks, Vivek. I think you've highlighted one of the key elements that gives us the strong confidence that the next decade will be very different than the past decade or the past 10 years. I think we have said very transparently that our Embedded business underperformed in the last 10 years.

We understand exactly why. I think it was a combination of a strategic direction that we had to pivot back in 2019. And also, execution issues that, frankly speaking, the team underexecuted. And I am very convinced and have enough data to look at; the Embedded business is in a trajectory of change, and it is very well positioned to do very well in the coming years and be an equal contributor, if not more, to free cash flow per share for the company.

To provide a little bit more details, back in 2019, we decided that we will take what we call the long but the right way to fix the business, focusing on the portfolio that is really allowing these positions of diversity and longevity, especially in industrial and automotive. This means investments in low-power MCUs, in real-time control, in wireless connectivity systems, in a very strong portfolio of sensors, including radar, that I believe is well positioned to grow very nicely in the coming years, starting now.

So if I think about our execution, I'm very pleased with where we are. We are seeing the funnel of the design-ins growing. We are seeing customers adopting our parts in a way accelerated rate versus the last decade. And we also are seeing the transition from our foundries into the Lehi factory as a very successful one, positioning us to compete at every socket at a very good cost structure.

So I see a lot of tailwinds coming on the Embedded. Yes, they have to go through their inventory correction at the market as well. Yes, unfortunately, it started one year after the Analog business. The Embedded business, to remind you, has grown in 2023 for us, while Analog declined double digits. But I think we are just prepared right now to show the results falling through to the top line and also the bottom line of the company.

Operator

Tore Svanberg, Stifel.

Tore Svanberg - *Stifel, Nicolaus & Company, Incorporated - Analyst*

Yes. Thank you. So I had a question on your cyclical/trendline analysis. I'm just curious why you're using units and not billings in that analysis? I mean if pricing had been stable, I would understand it, but it's been anything but stable the last five years. So just curious why you look at that? And when we do include billings, do you still feel like we are sort of way below the trend line at this point?

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

Yeah. I think, Tore, I think you've kind of answered the question, because pricing was so unstable in the last several years, to see what's really going on in boards or systems in terms of secular growth, the way I look at it, is through units, or wafers. I think units are a good proxy for wafers, right?

And at the end of the day, we know that our customers are adding content to their systems. We know that there is going to be, especially in industrial and automotive, more parts per board, and more units per system. And I think this is just being delayed right now because of a very long inventory correction cycle that we are going through right now.

I also think that the fact that the -- we are seeing a bottoming of that unit trend somewhere in the beginning of '24 is very encouraging. I think 2025 is set for success. As I said in the last few calls, we've been hovering around the bottom in industrial for so long. I think it's about time to see some improvement there. And I just give ourselves a very good chance to go back to trend line.

I mentioned before, we've seen that happening very quickly in some geographies, in some markets, but they are simply not representing the majority of our business. That's why you see the company still improving, but not in the fast pace. When industrial and automotive, going back to trend line, we will all see it, and most importantly, we have to be prepared to support it.

If I look at the investment in capacity outside of China -- of China, when I look at the investment in inventory, I think TI will be uniquely positioned to support the upside that will come.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Any follow up, Tore?

Tore Svanberg - *Stifel, Nicolaus & Company, Incorporated - Analyst*

Yeah, that's fair. And thank you, Dave. Yes, my follow-up, there's a lot of focus here on front-end manufacturing. But I think we all know that in analog, back end is as important or more important. So could you maybe update us on what's going on there? My understanding, you still have some heavier footprint in Asia. So any updates you can give us on the back-end side would be helpful.

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

Thanks, Tore. I think it's, again, a very important point, especially when you think about the fact that geopolitics have been less than stable over the last several years, and our customers are noticing this as well and are putting more emphasis not only on the front end but also on the back-end factories.

And TI is very unique in the sense of -- we are aiming to vertically integrate, not only on the front-end side, but also on the back-end side. So I think Rafael showed in one of the slides, that when we go to 2030, we will support more than 90% of our units, parts, volume on internal manufacturing. And that's very, very important and also very unique.

If you look at the, what we call the OSAT world, or the outside -- outsourced assembly and test factories, and you are looking for, I would say, dependable capacity, it's just very, very hard to find. TI has that answer. We have a very diverse manufacturing footprint on the assembly and test side in Asia, in North America and also in China. And that's a combination that our customers value.

Whatever the world wants to throw at us, I think the diversity network of manufacturing is going to be very appealing to our customers. We have seen it already in 2024. Some of our customers were insisting that we will get our parts moving from one factory to another. Most of our parts are dual source. They can be sourced, for example, from China and from the Philippines and from Malaysia.

And to solve customers' requirements, we were able to support them at the highest level. And again, I think we are unique in bringing our capacity internally on the assembly and test side and it's going to be a big part of our strategy for the second half of the decade.

Operator

C.J. Muse, Cantor Fitzgerald.

C.J. Muse - *Cantor Fitzgerald & Co. - Analyst*

I guess first question, building geopolitically dependable capacity in the U.S. clearly proved to be very prescient, given U.S.-China challenges. But given China requires being local, I'm curious how your strategy has evolved to meet the requirement of acting or looking more local, at least within your China footprint?

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

Yeah. Thanks for the question. Let me say a few words about China and the competitive landscape, including manufacturing, and then I'll address your question more directly.

So first, as I mentioned I think many times, China is an important market for us. We've seen a good momentum over there. In 2024, it represented 20% of our business, which is very similar to China's share of world GDP. So we are penetrated well into this important economy.

And when we think about our revenue in China, we think about companies, or customers, that are headquartered in China. But of course, they have business that is very broad. They want to support the China local market, but they also support, with a high level of commitment, their export business. And in that sense, TI is just a great fit for their needs. They like our products. They like the high quality of it. They like the level of service that we provide.

And as I mentioned just a minute ago, we have a diverse set of manufacturing sites in China and outside of China at the right scale. When I think about the right scale, I would think about this 80%, 20%. If China is 20% of world GDP, I don't think we need to be over-penetrated into that geography. But we also have to have presence there, and it's exactly what we have.

The discussions with our customers are going very well. They view our capacity as dependable.

Having said that, we -- and I said it many times before, the landscape is more competitive. We are not the only players in China. The China customers are more than willing to use the local competitors. And the way we compete is through our competitive advantages. We simply have to have a better part, a higher level of integration, a very good cost structure across our portfolio. Not only on one socket, but across a set of general-purpose parts and application-specific. And that's our play in China -- very, very similar to the rest of the world. We are encouraged by the momentum over there. But again, as I said before, we expect the landscape to become -- to continue and become more competitive in the coming years.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Any follow up, C.J.?

C.J. Muse - *Cantor Fitzgerald & Co. - Analyst*

Yeah, Dave. Thanks. Just to go back to the reiteration of the $2 billion to $5 billion in CapEx in 2026. If I'm hearing correctly, it sounds like it's more of a question around having appropriate mix, the right node, the right specialty products as dictating where you'll end up, as opposed to kind of what your revenue outlook is for '26. Is that accurate?

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Let me try to answer that. On the low end of that range, the $2 billion, that is a minimum level that we need to complete Phase 2. And that is new fab preparation and long lead time work that is not dependent on near-term revenue, okay? So that's why that floor is there.

From $2 billion to $5 billion, that increase would be related to revenue. Frankly, not revenue in 2026 at that point, most likely, but it would be more of where the revenue trends are going beyond '26 because whatever CapEx you spend one year generally doesn't give you capacity that year, right? By the time you put it in place, and you qualify it, et cetera. But that delta between the $2 billion and the $3 billion would be additional deployment of equipment and additional increases in factory -- in Lehi 2, for example, to prepare for even more revenue later in the decade.

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

And then just to add, maybe, C.J., as you mentioned, we always look at things in granularity. This is not about just spending $2 billion. This is about what are we seeing per process technology per the demand.

I'll just give an example. We have moved with RFAB2 very, very quickly, and we are very happy with this investment. That type of technology we run there is utilized at the highest level, and every wafer we can make there in Richardson is turning into revenue. And I expect Sherman to be very, very similar.

So it's very hard to call exactly what will be the mix, as you said, in 2026, but we are prepared to support any option. Of course, if the revenue goes back to trend line very, very quickly, we will have to continue to invest in 2026 to support '27 and beyond, and that's what Rafael mentioned. So you can mention -- you can think about the $2 billion of long lead times plus supporting the mix that you have mentioned. And also, we go higher when we have a high level of optimism around 2027 and beyond.

The last point I will make, this is only a framework. It's not that we have a bottoms-up list exactly of what we will spend in 2026. Efficiency is a big part of our strategy. We are always looking to optimize our spend and continue to improve it in efficiency. So we'll continue to update as we go, but that gives you a framework, high level what are the options in the 2026 CapEx plan.

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

And just to add one more thing. Beyond the $2 billion floor that I referred to, that's when we go to the modular or incremental basis, okay? Whether that is the $2 billion going up in 2026, or any CapEx in 2027. That's what we're calling Phase 3, and it's very modular. We just put whatever is needed and only what's needed to support revenue and revenue growth.

Operator

Joshua Buchalter, TD Cowen.

Joshua Buchalter - *TD Cowen - Analyst*

I wanted to start with a bit of a big picture one. I mean, the chart on Slide 10 clearly shows that this trend -- that we're running sort of below the trend line and a deeper level and for longer than any of the past cycles. I would just be curious to hear your perspective on 1, why that's happening and 2, what are the catalysts that are needed really to have it inflect back towards that trend line? And should we -- is it a given that it needs to inflect more quickly because of how deep the correction has been? Thank you.

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

Yeah, it's a great question. And I think many people ignore the trend line. We shouldn't. The reason for the trend line is really electronics are serving a bigger part of solving more problems in our economy. And they'll continue to do that moving forward, I think, in an accelerated rate, okay?

So the responsibility we have as a manufacturer, as a provider of semiconductor, is to be ready to support that trend. And while right now we are hovering around the trough, especially on the industrial market, and I'll comment in a minute why we think it happened. The new systems are already completed in our customers' benches. They are getting through qualification and once inventory of the older systems get depleted, that new system will go into production together with some -- probably building some inventory once you depleted everything you had before, right? So that's usually what happens with cycles, and we are going to be well prepared for that opportunity.

Now reasons are complex, but look, this has been the most pronounced, I would say, cycle that I've been exposed during my 25 years of career in TI, and the amount of the surge of demand during the '21, '22 time frame was immense, okay. And I think when customers get anxious, they want to be well buffered, and this is where you see inventory gets built.

You add to that the fact that the cycle was asynchronous, meaning different markets, different geographies because of COVID behaved in a different phase of time in terms of upcycles, downcycles, and you get this elongated cycle, which we are experiencing right now. But I can see it sector by sector, inventory gets rationalized, and customers are getting to their new systems ready for production, and they order the new parts, and that's what will drive growth in the coming years.

So to your point, we do want to be prepared for, in our case, worst case scenario, that the demand will be very rapid. And in that case, you need to have inventory on your balance sheet and you also want to have capacity to build in to, as Rafael mentioned, in this case, fill up the cleanroom rather than start building factories from scratch that takes 2.5 or 3 years.

So we have done all that hard work. I think it requires a high level of discipline that we have demonstrated. We have a high conviction that the market will go back to trend line. And I think you'll see TI ready to support that opportunity.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Any follow up, Josh?

Joshua Buchalter - *TD Cowen - Analyst*

Thanks for the color, Haviv. For Rafael, you gave a sort of outlook for depreciation for fiscal 2026. And assuming that we're towards the low half of the $2 billion to $5 billion range in 2026 CapEx, is it -- should that be the peak year of depreciation expense? Or would there be an upward bias for another year or two as the CapEx flows through the model? Thank you.

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Yes. So just to remind everyone, first of all, our depreciation expectation for 2025 is $1.8 billion to $2 billion.

And for 2026, it's $2.3 billion to $2.7 billion, but we expect to be at the lower half of that range. So call it $2.3 billion to $2.5 billion.

What happens beyond that obviously depends on a number of factors, but the key one is CapEx. So if you -- in your -- for example, if you were running a $2 billion a year CapEx from that point on indefinitely, then it'd be hard for the depreciation to increase much more than that point. But that's just going to depend on CapEx. And that CapEx, of course, will depend on our revenue expectations.

Operator

Ross Seymore, Deutsche Bank.

Ross Seymore - *Deutsche Bank AG - Analyst*

I guess the first one, I think it was Rafael, you had the slide about the structural cost advantage. This is nothing new to TI from the perspective that moving to 300mm wafers for analog was a great cost advantage starting almost a decade ago.

In the original implementation of that, it seemed like your market share steadily increased, but your margins really exploded to the upside. So I guess my question is, in this iteration of the structural cost advantage, is this going to be more about maximizing market share than margins? And how do we think about the pace with which market share can move in a kind of naturally fragmented market?

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

Yeah. Just I'll make a quick comment about market share versus cost structure, and then Rafael will provide some more color on the 300mm wafer investment.

So look, I think we said many times, the market price is not determined by Texas Instruments. As much as we want to have a very big share of the market, we don't set the market price, but we compete at the market price.

And right now, I think there's a lot of things going on. We are in a downcycle. There is more supply than demand in the entire market. Competitors are more hungry to take share, and we compete. You add to that, and this is related to the previous question about this asynchronous behavior of markets, the industrial market is so depleted and has been running at such a low level, that also has an effect on margins.

I think that has to be measured over the long term. So that's a question to answer really through the next upcycle. I think a lot of things can change in the coming years in terms of how markets grow and how we get back to trend line, which I think we will. And then the fall-through will be very nice.

That's a high-level answer. Rafael, maybe you want to add some more color?

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Yeah, just to add to that. Clearly, there's still plenty of tailwind left on what we're doing on 300mm -- internal 300mm wafers. We finished 2024 with about 60% of our wafers running on 300 internally. And by the end of the decade, we're going to be above 80%.

And the other area that is less talked about, but is the assembly internal side, which we also have a cost advantage there, in addition to being great from a control your own destiny standpoint and other things, geopolitically dependable capacity. But we also have a cost advantage there. And we finished 2024 at 70%, and by the end of the decade, we'll be above 90%. So both of those will give us tailwind that go to the gross margin line and enabling more revenue growth.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Any follow up, Ross?

Ross Seymore - *Deutsche Bank AG - Analyst*

A perfect segue, Rafael, to your final statement. In the past, a couple of quarters ago, I think you talked about a decent framework for gross margin for all of us to be 75% to 85% incremental gross margins ex depreciation. Does that still hold true? Because it seems like, at least this year, that will prove to be challenging. And I know you tend to give targets that are not any single year, but any adjustments to that framework?

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Yeah. No, you said it very well, Ross. So it is valid. It's the way we think about it, the way we model this internally. It makes sense given the mix of everything we're doing with 300mm, ATs, et cetera. But 75% to 85% fall-through on revenue growth, and there are always puts and takes on that.

And as you said, this year it may be more challenging in the first half of the year just because of factory loadings. But sometimes, you're at the low end of that. Sometimes you're at the high end of that range. And one of the things that contribute to that is factory loading.

So -- but that is -- it's going one way now, and it will be a tailwind in the future at some point. So it's still good to use 75% to 85% and then adjust for depreciation. Just keep in mind, it's over the long term, right. So it's hard to do it in any one quarter, especially if revenue change is small, but over years and cycles, it works really well.

Operator

Timothy Arcuri, UBS.

Timothy Arcuri - *UBS Investment Bank - Analyst*

I also had a question on China and how the tariffs sort of play into the forecast. I know you have the facility in Chengdu. But do you have enough balanced supply that you can source non-China demand outside of China?

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Yes. We -- the bottom line is that we expect minimal impact, if any, on the tariffs. And a lot of that is, as you alluded to, is a function of our diverse footprint, geopolitically dependable footprint that we have on assembly test sites. Well, on the fab on the -- primarily in the United States, but on the assembly test side, we -- while we do have one in China, we have plenty in Malaysia, in the Philippines, in North America that allows us to really optimize our supply chain and logistics.

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

Yeah. Let me just add to that. I think it's a very important point that you're making. When you think about tariffs or anything else that the world can throw at you, we just have to be prepared for that.

So when we talked about -- I think it was mentioned in August -- that we will have capacity at scale. So first, when you say capacity, we need to have enough of it, right? It has to be low cost and very effective, very efficient. But it also has to be at the right scale. And as I mentioned before, if

China, for example, is about 20% of world GDP, why would you want to build, for example, your assembly and test capacity at a higher percentage, okay?

And as we move and internalize our supply chain, we will exactly go into this point that we will be at the right level. If you mention our Chengdu site, if we do a good job, it should represent more or less 20% of our output. That can be done only in, I believe, if you bring your supply internally. Because if you look at the OSAT world, it's very, very hard to do. That world is not balanced today.

Our customers are aware. And when I talk with the CEOs and we think about the future, I hear very well that TI is well prepared for that challenge. We don't only have enough capacity, and it's a very affordable one, it's also at the right scale to serve our customers around the globe.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Any follow up, Tim?

Timothy Arcuri - *UBS Investment Bank - Analyst*

So Haviv, there's obviously -- pretty much every investor I talk to expresses some doubt that you can get to the low end of this forecast for the next year, and you're hearing some of that on this call. But what are the leading indicators that you're looking at? I mean if I look, even since you reported, the ISM came in better this week, new orders jumped 3 points month-on-month. There were some large companies on the industrial side, but with some pretty strong bookings last week for the first time in two years. Has this increased your optimism that you can get to that, at least that low end of that range? And has it increased your optimism even since the earnings call last week? Thanks.

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

First thing, I think you guys rightfully so are looking at every point of data, and you should. Our plan is not changed. But if you just look at what we said 10 days ago, and I actually mentioned, I think we forecasted at the low-single-digit decline in Q4 over Q1. I also mentioned that the seasonality on the PE market is quite large when you think about history and Q4 to Q1 behavior.

So if you just do the math and just take 70% of our business in industrial and automotive to, just mathematically, to make that happen you can easily see that there is good opportunity in industrial and automotive. Otherwise, how do you get to that low-single-digit decline, right?

So -- and I said it also during the entire 2024. We have seen it in a smaller part of our businesses. It's been behaving the same. That's how China behaved from a trough in Q1 of 2023 to growth in Q4 of -- sorry, trough in Q1 of 2024 to growth in Q4 of 2024 in a very rapid pace. That's what happens when things go back to trend line. We saw the same in PE. We are seeing similar behavior in the enterprise market first, with comms following.

So to me, there is enough breadcrumbs to see that asynchronous behavior of things want to go back to trend line is there. We just need for this to have to proliferate into industrial and automotive. And I think we are well positioned to do just so. I mean, we'll give, of course, where we landed in the April call.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Great. Thank you, Tim, and we've got time for one more caller, please.

Operator

Harlan Sur, JPMorgan Chase & Company.

Harlan Sur - *JPMorgan Chase & Co. - Analyst*

Haviv, on your Embedded business, you mentioned this, I mean, one of the big changes in the manufacturing strategy is the shift of your historically outsourced embedded products, right? MCUs, processors, your internal 300mm network, primarily LFAB. For your core analog products, you've described the cost savings internal 200mm to internal 300mm at 40% lower die cost.

Can you just give us the comparable sort of long-run cost savings comparison, outsourced MCU die cost versus insourced 300mm MCU die cost? Because with the renewed focus on Embedded, the potential for a better growth profile going forward, would be good to know the cost advantages in this segment?

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

Yeah, I'll start, and then I'll let Rafael give some more color. But first, remember, when we -- when you make a large CapEx investment, let's take an example for MCUs in Lehi. Once you start to shift your wafers from the external foundry internally, from a cash perspective, the fall-through is tremendous, right?

Of course, you have to account to the cost of the CapEx, right? So when you think about the cost of the wafer, it's a more complicated calculation. But if you just think about the cash that we have to spend, and I think Rafael gave a couple of examples last year. If you had to think about, I don't know, $2,500 wafer price or so and it can go up and down, depends on the technology. Then when you run it internally, what's your cost? It's really the cost of a substrate. It's a few hundred dollars. That's not $2,500. So -- and that just has to happen at scale.

So if you think about what we are seeing right now in our journey in Lehi, and it's going to take some time, but we have started with our 65nm embedded memory technology. That was completed in 2024. Right now, starting in 2025, every wafer now is built internally rather than in our foundries.

And our job in 2025 is to continue this effort into our 45nm node, where we run mainly functional safety product for automotive; that's what dominates the volume. So the qualification process is a little bit longer. I expect us to complete it in 2025.

As we leave 2025, going into 2026, we will have that tailwind behind us. And Rafael, I don't know if you want to add a little bit more color on the cost?

Rafael Lizardi - *Texas Instruments Inc - Senior Vice President and Chief Financial Officer, Finance and Operations*

Sure. So as Haviv alluded to, essentially, right now, the tailwind is huge on a cash flow basis or actually on any basis, but especially on cash flow because we have a fully -- a factory -- a full factory in Lehi with a lot of employees, but it's running underutilized because we haven't moved all the parts that we can internally yet as we go through qualification process, et cetera. So we're bearing the brunt of that factory in the P&L yet the revenue is not going through that yet.

But as we increase the revenue going through the factory, the fall-through is going to be tremendous, right? Now on a fully loaded basis -- that was a comment on CapEx once you account for the CapEx. On a fully loaded basis, the advantage of going internal versus external for Embedded is similar -- at the highest level, it's similar to Analog. And that's what we have in one of the slides that I went through, the 40%, yeah.

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

And another way to look at it, think about the largest supplier of -- I mean, dependable supplier of foundry wafers, look at the GPM and you can think about the value there, right? This is not an insignificant number. So obviously, when you run your wafers internally, also tailoring your

technology to your products, there is a ton of value there for us. And I think this value continues into the future as geopolitically dependable capacity becomes more valuable.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Any follow up, Harlan?

Harlan Sur - *JPMorgan Chase & Co. - Analyst*

On the enterprise systems segment, you've historically characterized R&D investment profile here as slightly up today. You actually articulated the focus on data center, Haviv. Can you just give us a sense on where the focus on data center is being directed? I can think of power delivery, power management? What about networking connectivity? Any other areas I'm missing? And any metrics you can share with us on your success in data center?

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

Yeah, I think it's a great question. I think we also said it on the slide. I think Rafael mentioned, the investment is going up but focusing on data center. There are other parts of enterprise that we are less investing in. But the data center is the largest part of our enterprise market. I think I mentioned before that revenue for us peaked in 2022. And it was above $800 million at the time. Then it fell heavily or rapidly in 2023. But '24 was a good recovery. I mean if you think about -- the data center revenue, I think it grew about 20% in 2024. Again, it's not reached the peak, but getting there, about $650 million, I think we landed in 2024.

But to me, the focus should be more on the future. If you think about the amount of power that these data centers will run, and as you said, this is the largest opportunity we have across the entire power tree. So from the AC to DC power delivery modules, where we have not only a real-time control DSPs that convert power, isolation, a lot of general-purpose parts, but also new investment in our GaN technology that is seeing good progress over there, into the, what we call the intermediate bus controller, where we are seeing a good opportunity for mid-voltage GaN and our BCD technology that is very advanced, our 65nm, all the way to the power stage, where I believe we have the best BCD process on earth.

I think we are well ahead of the competition in terms of the efficiency of our power density or how much current we can deliver through our monolithic solutions on a square millimeter. So I see our position to compete in that market as very high.

Of course, that process technology is going to ramp in Sherman, and that is coming at the end of this year, right? We are now equipping Sherman. Our process technology is going to be qualified there. And we'll start to see that contributing to revenue in 2026. So I am encouraged about the power opportunity in enterprise.

It's still very early if you compare it to the industrial and automotive markets that are tens of billions of dollars for Embedded and Analog. This is still a small market, but it's going to grow very, very rapidly, and we are well prepared, including the size of our capacity that customers are relying upon, including the fact that it's dependable, okay? These data centers, you want to build them with parts coming from dependable suppliers rather than put your machine critical type of AI centers in the hands of people who are less dependable. So we are seeing a very good pull from our customers.

The other area for us in enterprise is on the networking side. We are seeing good momentum on the optical communication, mainly with analog control around the lasers and the APDs of that technology. We think optical communication will grow fast in the coming years and will serve a greater and greater socket amount on the board.

So our product portfolio is growing, and we are offering more solutions there. I'm excited about where we are headed there.

And the last point, we always -- we talk about general-purpose parts, but they are very, very important. It's a big part of the TAM. Maybe the average unit price is low, but there are many of them, okay. And they add up. You start with -- from level shifters to logic, to very small single-phase voltage regulators to isolation. TI has a very broad portfolio. We can really sell the board on the general-purpose side, and it's a very lucrative business.

So in general, the enterprise is going to be an important -- or data center will be an important market for TI, and I expect us to make more inroads into it in the coming years.

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

Great. Thank you, Harlan. We appreciate those questions. I'll ask Haviv to wrap things up for us.

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

Thank you, Dave. So to finish the call, I want to thank you all for taking time today to go through our capital management update. Let me emphasize again a few points.

First, we remain focused on consistent execution of how we manage capital. Our disciplined allocation of R&D is delivering growth from the best general-purpose and application-specific products in Analog and Embedded. Our 300mm manufacturing strategy is a unique advantage and will continue to benefit TI for a long time to come. And last, we remain committed to returning all free cash flow over the long term to our owners. Dave?

Dave Pahl - *Texas Instruments Inc - Vice President, Head of Investor Relations*

I'd like to thank all of you for joining us today. A replay of this call will be available on our website as well as the slides that we used in the call. Have a good day.

Operator

Thank you. Ladies and gentlemen, this concludes today's conference, and you may disconnect your lines at this time. Thank you for your participation.
