Jeff Su
Director of Investor Relations, TSMC

Good afternoon, everyone, and welcome to TSMC's third quarter 2026 earnings conference call. This is Jeff Su, TSMC's Director of Investor Relations and your host for today. TSMC is hosting our earnings conference call via live audio webcast through the company's website at www.tsmc.com, where you can also download the earnings release materials. If you're joining us through the conference call, your dial-in lines are in listen-only mode. The format for today's event will be as follows. First, TSMC's Senior Vice President and CFO, Mr. Wendell Huang, will summarize our operations in the third quarter, 2026, followed by our guidance for the fourth quarter, 2026. Then, Mr. Huang and TSMC's Chairman and CEO, Dr. Cici Wei, will jointly provide the company's key messages. That will be followed, then we will open the line for the Q&A session. As usual, I would like to remind everybody that today's discussions may contain forward-looking statements that are subject to significant risk and uncertainties, which could cause the actual results to differ materially from those contained in the forward-looking statements. Please refer to the safe harbor notice that appears in our press release. And now, I would like to turn the call over to TSMC CFO, Mr. Wendell Huang, for the summary of operations and the current quarter guidance.

Wendell Huang
Senior Vice President and CFO, TSMC

Thank you, Jeff. Good afternoon, everyone. Thank you for joining us today. My presentation will start with financial highlights for the third quarter of 2026. After that, I will provide the guidance for the fourth quarter of 2026. Third quarter revenue increased 17.6% sequentially in NT, supported by strong demand for our leading-edge process technologies. In U.S. dollar term, revenue increased 16.2% sequentially to $46.7 billion, above the high end of our third quarter guidance. Gross margin decreased by 1.3 percentage points sequentially to 66.4%, primarily due to margin dilution from 2 nanometer ramp. Total operating expenses accounted for 7.8% of net revenue. Operating margin was 58.7%. Overall, our third quarter EPS reached 29.43 NT and ROE was 45.5%. Now, let's move on to revenue by technology. Two nanometer process technology contributed 8% of wafer revenue in the third quarter, while 3 nanometer, 5 nanometer, and 7 nanometer accounted for 33%, 28%, and 10%, respectively. Advanced technologies, defined as 7 nanometer and below, accounted for 79% of wafer revenue. Moving on to revenue contribution by platform, HPC increased 22% quarter over quarter to account for 68% of our third quarter revenue. Smartphone increased 10% to account for 21%. IoT increased 5% to account for 4%. Automotive increased 23% to account for 4%, while DCE declined 12% to account for 1%. Moving on to the balance sheet, we ended the third quarter with cash and marketable securities of 4 trillion NT or 126 billion US dollars. On the liability side, current liabilities increased by 110 billion NT quarter over quarter, mainly due to the increase of 46 billion in current portions of bond payable and bank loans and 26 billions in dividend payable. In terms of financial ratios, accounts receivable turnover days decreased by one day to 28 days. Inventory days decreased by five days to 82 days, primarily due to the increase in wafer shipment. Regarding cash flow in CAPEX, during the third quarter, we generated about $920 billion NT dollars. In cash from operations, spent $443 billion in CAPEX and distributed $156 billion for fourth quarter 2025 cash dividends. Overall, our cash balance increased $488 billion NT to $3.6 trillion at the end of the quarter. In U.S. dollar terms, our third quarter capital expenditures totaled $13.8 billion. I have finished my financial summary. Now, let's turn to our current

quarter guidance. Based on the current business outlook, we expect our fourth quarter revenue to be between 52.3 and 54.3 billion US dollars, which represents a 14% sequential increase or a 58% year-over-year increase at the midpoint. Based on the exchange rate assumption of one US dollar to 31.8 NT, Gross margin is expected to be between 65 and 67%. Operating margin between 56.5 and 58.5%. This concludes my financial presentation. Now, let me turn to our key messages. I will start by talking about our third quarter 26 and fourth quarter of 26 profitability. Compared to second quarter, our third quarter gross margin decreased by 130 basis points sequentially to 66.4%, primarily due to the margin dilution from the initial ramp up of our two nanometer technology. We have just guided our fourth quarter gross margin to decrease by 40 basis points to 66% at the midpoint, primarily due to the continued margin dilution from the steep ramp up of our two nanometer technology, as well as dilution from overseas fabs. These impacts are expected to be partially offset by cost improvement efforts, including productivity gains and across-node capacity optimization. While the cost of overseas fabs remain higher, thanks to the company's overall larger scale and cost improvement efforts, we now expect the gross margin dilution from the ramp up of our overseas fabs to be closer to 2% for the full year 2026. As we put more effort to support the strong structural demand from our customers, more fabs will be ramping up in the U.S., Thus, we expect the dilution from our overseas fabs to widen to 3-4% in the next few years. We will leverage our increasing size in Arizona and work on our operations to improve the cost structure. We will also continue to work closely with our customers and suppliers to manage the impact. Overall, with our fundamental competitive advantages of manufacturing technology leadership and large-scale production base, we are confident that TSMC continues to be the most cost-efficient manufacturer in every region that we operate. Next, let me make some comments on our 2026 capital budget. At TSMC, a higher level of capital expenditures is always correlated with higher growth opportunities in the following years. Given the continued robust multi-year demand from our customers, including the emerging agentic AI market, we reiterate our full-year 2026 capital budget to be between 60 and 64 billion U.S. dollars. We continue to expect our capex dollars investment from 2026 to 2028 to be even more significantly higher than the past three years as we continue to invest heavily to support our customers' growth. Additionally, while the tool supply is tight, we always collaborate closely with our tool suppliers well in advance to prepare the capacity, just like our customers collaborate with us well in advance to plan our capacity. Even as we invest for the future growth with this level of capex spending in the next few years, Thank you, Wendell. Good afternoon, everyone.

Dr. Cici Wei

Chairman and CEO, TSMC

First, let me start with our near-term demand outlook. We concluded our third quarter with a revenue of U.S. dollar 46.7 billion higher than our guidance in U.S. dollar terms, driven by strong demand for our leading-edge process technologies. Moving into first quarter 2026, we expect our business to be supported by continued strong demand for our leading edge process technologies, including the steep ramp up of our two nanometer technology. Looking ahead, we continue to observe consumer and price sensitive end market segment are being challenged and many more. As such, we are being prudent in our business planning going into 2027, while focusing on the fundamentals of our business to further strengthen our competitive position. Having said that, demand for our leading-edge technologies continues to be extremely robust, supported by our strong technology differentiation and broad customer base. Therefore, we now expect our full-year 2026 revenue growth to be around 44% year-over-year in U.S. dollar terms. Next, let me talk about the AI-related demand outlook. The AI market continues to be very strong. Recent developments are very positive to AI's long-term demand outlook. We observe increasing AI demand fueled by the rising adoption of authentic AI as we transition from chatbot to AI assistance. In addition, We are observing great adoption of open source AI models. This will drive greater efficiency and help lower the barrier to future AI usage and result in more and more demand for leading-edge silicon. Thus, AI-related demand is being supported by

strong underlying demand for AI accelerators. In addition, The emergence of agentic AI CPUs and the continued demand for networking chips are driving further silicon demand. Therefore, semiconductors will remain essential in the AI megatrend. The value of semiconductors in the global supply chain is set to continue to increase in our view. This will create more value opportunities for our customers to capture and more value opportunities for TSMC as well. No matter which approach is taken, it will require use of the most advanced semiconductor process technology. With our technology leadership, manufacturing excellence, global capacity expansion, and customer trust, we are well positioned to capture the full multi-year structural AI-related demand. Therefore, all the AI players are working with TSMC. Next, let me talk about TSMC's capacity expansion strategy. As a boundary, our first responsibility is to provide our customer with the best technologies and effective capacity support to unleash their innovations. To address the structural increase in the long-term semiconductor market demand profile, TSMC collaborate closely with our customers, and our customers are customers to plan for our capacity. In addition, we are now going one step further and sending our own teams of people to check on the data center build-out process, progress, and power supply situation in the U.S. The feedback is so far so good, and the CSP has been well prepared. Internally, TSMC employed a disciplined capacity planning system to assess the market demand from both a top-down and bottom-up approach. This is a continuous and ongoing process. Given the fundamental complexity of leading-edge technologies and the designing and lead time involved, we already have a very good idea of customers' multi-year product roadmap and production plans. Thus, we continue to hold strong conviction in the AI megatrend. We are moving full speed ahead to increase our capacity to meet our excessive demand and stepping up our capex investment to support our customers' future growth. TSMC is expanding at an unprecedented pace with a near 25th worldwide in progress. We are building 13 leading-edge and advanced packaging fab in Taiwan over the next several years and another 5 to 6 fabs overseas. Our new node, N2, has already entered high-volume manufacturing in the fourth quarter of 2025, which is a good year. N2 is ramping successfully in multiple phases at both Hsinchu and Kaohsiung sites. We expect our N2 family technologies' annual capacity to more than double in 2027, supported by strong demand from both smartphone and HPC AI applications. We are also leveraging our manufacturing excellence to generate more N2 wafer output, further increasing our capacity support to customers. In addition, we have already begun preparing the capacity for our A14 technology. Risk production is well on track for 2027, and volume production will start in 2028. Thus, TSMC's semiconductor technologies and manufacturing will continue to play a pivotal role in supporting the global semiconductor industry while unleashing our customers' innovation. Now, let me talk about TSMC's Global N3 Capacity Expansion Update. As we said before, historically we do not add additional capacity to a node once it reaches its targeted capacity. However, based on our assessment, we are executing well on our global capacity plan to add three new fabs to support the robust multi-year pipeline or demand for three nanometer technologies. In Taiwan, volume production for our new three nanometer fab in Tainan Science Park is well on track to begin the first half of 2027. In addition, driven by the strong demand from our customers, we have decided to add one additional three nanometer fab in Tainan. Volume production is scheduled for the first half of 2028. In Arizona, We have completed the construction of our second farm and are in the process of tool moving and installation. Volume production will begin in third quarter 27, slightly ahead of our previous schedule. In Japan, We are processing well to our plan to utilize 3 nm in our second fab and volume production is scheduled in 2028. In addition to all the new fabs, we continue to convert 5 nm tools to support 3 nm capacity in Taiwan. We are also leveraging our manufacturing excellence to greater productivity across our fab in all locations. To generate more wafer output, we are also focusing on capacity optimization across nodes, which include flexible capacity support among N7, N5, and N3 node. Thus, We are using multiple levers to do everything we can, whenever we can, as fast as we can to maximize the support to our customers. We have no intention to leave food on the table for others, and we want to capture every piece of business possible. This concluding our key message, and thank you for your attention.

Jeff Su
Director of Investor Relations, TSMC

Thank you, CC. This concludes our prepared statements. Before we begin the question and answer session, I would like to remind everybody to please limit your questions to two at a time to allow as many participants as possible the opportunity to ask their questions. Should you wish to raise your question in Chinese, I will translate it to English before our management answers your question. For those of you on the call, if you would like to ask a question, please press the star then 1 on your telephone keypad now. If at any time you'd like to remove yourself from the questioning queue, please press star 2. Now, let's begin the Q&A session. Operator, can we proceed with the first caller on the line, please?

Operator
Conference Operator

Yes. First one, Laura Chen. Go ahead, please.

Laura Chen
Analyst

Thank you very much. Good afternoon. And I appreciate CC for sharing with us the TSMC capacity expansion strategy. So may I follow up more on that? Given the increasing aggressive AI semiconductor demand, How does TSMC now see the AI revenue kicker growth, and how does TSMC reconcile customers' capacity requirements with some of the potential concerns on the data center power availability? and other critical components such as HPM, APS advanced packaging and also in the networking side we see the tightness of the laser as well. So if these constraints create a mismatch How would CSMC adjust your capacity allocation and also the strategy to minimize the potential overbuilding in the supply chain? Thank you. That's my first question.

Jeff Su
Director of Investor Relations, TSMC

Okay, Laura. Laura has a very involved first question. I think she's asking, how do we see the AI demand outlook? The AI demand, you know, as Cici said, seems to be very strong, but she's worried or concerned. How do we reconcile the strong demand of chips, AI chips, versus, you know, risks related to whether it be power supply demand, I think also like different bottlenecks within the supply chain, et cetera. How do we make our assessment of what is the appropriate CAPEX and capacity we need to prepare? Is that correct, Laura?

Laura Chen
Analyst

Yes, thank you.

Dr. Cici Wei
Chairman and CEO, TSMC

That's a long, long question. Laura, let me share with you. We have a very sophisticated capacity planning process. And we also have a very disciplined on our consideration. And let me share with you, we put every possibility if we can, talking about the CSPs, CAPEX, data centers built out, Financial, Power Supply, and also other component of supply, et cetera, into our consideration. And so we make our own judgment, and then based on our assessed demand, we still think the demand is higher than the supply, and we are working very hard to narrow the gap. Did I answer your question, Laura?

Laura Chen
Analyst

Sure, thank you. Thank you very much. So far from our comprehensive starting the supply chains, we are still quite positive on the demand in the longer term. So in that case, can you also give us more color about that? But any update on your AIK growth? I recall previously we talked about like a high 50%.

Jeff Su
Director of Investor Relations, TSMC

We, sorry, sorry. Yeah, so part of Laura's question is then based on our assessment, we had previously guided our AI Cager, AI Accelerator Cager, which is a narrow definition to go mid to high 50s percentage from 2024 to 2029. So Laura wants to know, do we have any update to that number today?

Dr. Cici Wei
Chairman and CEO, TSMC

Laura? All I can say right now is the demand is extremely robust, okay? And we did not see any sign of slowdown. Whether it's a high 50 kegel, it doesn't matter. It probably will be higher.

Laura Chen
Analyst

Sure. Okay. Yes. Thank you very much. Yeah, and my second question is also about, given the very strong demand, the capex cycles, we see that definitely this round will be much higher than before. And TSMC also announced that earlier you will adapt a high-end EUV around 2030. So should we think about that? That will be further improve the productivity This will be more meaningful for further accelerating revenue growth in the longer term. And also given that the capex intensity are also getting much higher, so how should we think about the pricing power and also the long-term growth margin, the capital efficiency return?

Jeff Su
Director of Investor Relations, TSMC

That's actually two questions, but okay, we'll just very quickly, so Laura's part of it is on, with the strong demand on our CAPEX cycle, how do we view the adoption of high NA, which we said we will, you know, in 2030, and then her question is on profitability, long-term outlook.

Laura Chen
Analyst

Yeah, thank you.

Dr. Cici Wei
Chairman and CEO, TSMC

Oh, okay. Let me answer that question. Yes, for the long-term productivity, we continue to improve it. And high-end, it definitely is a very good tool. And so far, I think our plan is to use it in 2030. Again, our KPX will be much higher than today. And so you're talking about the gross margin or the profitability can be increased or not. Let me say that. There's no ceiling for TSMC's profitability. but a dramatic increase will not happen overnight either. So our philosophy or our strategy always working with our customer and we want to make them be successful and then we can gain our value. Yeah.

Laura Chen
Analyst

Thank you very, very, yeah, very helpful. Appreciate it and congrats for the great result. Thank you.

Jeff Su
Director of Investor Relations, TSMC

Thank you. Operator, can we move on to the next participant, please?

Operator
Conference Operator

Next one, Goku Harihalan, JP Morgan. Go ahead, please. Hi, good afternoon, CC, Wendell, and Jeff. My first question, again, on capacity addition.

Goku Harihalan
Analyst, J.P. Morgan

Looks like the shortage situation next year could be even more than 2026. Just wanted to hear, CC, your view on this. and I think it's been quite some time since we've seen TSMC add capacity at more than 10% every year. I think if you look at your annual report, I think it's been like about 10 years that you've added capacity at more than 10%. Given this accelerated build-out, can we start getting wafer capacity growth closer to 10% or

even higher than 10% in the next couple of years? Any comment on what is your plan for capacity growth in the next couple of years? That's my first question.

Jeff Su
Director of Investor Relations, TSMC

Okay, so Goku's first question is regarding the capacity addition and the demand. So his question first is, the tightness in the wafer supply, do we think that will be even more or greater in 2027 than 2026? and then along with that, how do we see our overall capacity addition? Although you say 10%, I think every year we disclose in the annual report, it's been about mid to high single digit and sometimes even low work. But anyways, regardless, those are the two questions. So first on just the demand outlook and then the supply, will next year be even more tight than this year?

Dr. Cici Wei
Chairman and CEO, TSMC

I just mentioned the demand is extremely robust and getting higher and higher. Of course, we have our own judgment and we look at every angle. As I said, we talk to customer, customer to customer, and then we do our own one more step to check the data centers are built out. All the results we put into our judgment and our assessment, the result is that demand is very, very high. And so the gap between demand and supply are still quite big, and that's why we put all our strength to increase the capacity, as I just mentioned. Whether it's bigger or the gap become bigger or the gap become narrow, we are working very hard. I cannot answer this question right now because of my customer continue to increase their demand.

Wendell Huang
Senior Vice President and CFO, TSMC

Okay, Goku, I think it's a bit too early to talk about capital capacity increase percentage going forward. But let me just remind you that the increase every year, although the number is, even though the number may be small, but the increase in advanced packaging, sorry, advanced nodes are really the main driver for the capacity increase, okay?

Goku Harihalan
Analyst, J.P. Morgan

Fair enough. Okay. Thank you. Secondly, I think you alluded to more aggressive overseas expansion plans in the U.S. especially, and I think recently there's been a lot of discussion with potentially a new fab cluster in Texas, as well as I think one of your customers also talked Thank you very much. Thank you.

Jeff Su
Director of Investor Relations, TSMC

Okay, thank you, Gogo. So Gogo's second question, he knows that CC said we're expanding at an unprecedented place, doing everything we can as fast as we can to increase the capacity. So his question is

particularly to the U.S. What is the status or update? There's been reports that we are looking to expand in Texas. There's been reports that one of our customers, we're engaging in discussions. He wants to know what kind of Thank you. Thank you.

Dr. Cici Wei
Chairman and CEO, TSMC

We work very hard to expand our capacity in U.S. This is necessary because of all our customers, most of large customers in U.S., and they request the TSMC to increase the capacity. And also U.S. government are very helpful. So that's a place we want to expand. So recently, We did expand our capacity consideration to see outside Arizona whether we can get another chance to expand our capacity. And Texas is the one. So, We send the teams to Texas to do all the evaluation. And we also talk to one of our customer who try to build a fab, TerraFab, let me be more specific. And we discuss with them, see whether that we can be utilizing that actual capacity also. So we're still in discussion with them If we have any solid conclusion, we will share with you. But today, and that's it, yes, from Arizona to Texas, yes. Okay, but all of these is going to be TSMC-run fabs, right? I think you're not becoming part of the Terafab Thank you for joining us.

Jeff Su
Director of Investor Relations, TSMC

Okay, so Goku's question is not, you know, in particular to the potential cooperation with this customer. Would it be TSMC-owned? What's the principles that we have, if anything?

Dr. Cici Wei
Chairman and CEO, TSMC

We are still in discussion, let me say that. It's not, you know, either way it would be possible, but the fact got to be run by TSMC.

Jeff Su
Director of Investor Relations, TSMC

Okay, go ahead. All right, thank you. Operator, can we move on to the next participant, please?

Operator
Conference Operator

Yes, next one, Krish Sankar, T.T. Cohen. Go ahead, please.

Krish Sankar
Analyst, TD Cowen

Yeah, hi, thanks for taking my question. The first one, T.T., some customers One customer passes their wafer allocation to another. Is this like a very small portion of the business? Is it customer specific or do you see that as an emerging trend where customers whose demand is weak pass some of their allocation to stronger customers? I'm going to add a quick follow-up.

Jeff Su
Director of Investor Relations, TSMC

All right, Krish, thank you. So Krish's first question is asking, you know, some of our customers are talking about a reseller, a secondary wafer market where they can pass their allocation on. So is this, you know, a very small portion of our business or is this more of a trend for us to do? And is this something that we allow our customers to do?

Dr. Cici Wei
Chairman and CEO, TSMC

Well, let me answer that. to say whether this is a new strategy, new methodology, the answer is no. The principle of TSMC is we do not allow our customer to sublet or auction off the capacity. But in certain cases, and many more. We have a lot of people who are interested in this. We have a lot of people who are interested in this. We have a lot of people who are interested in this.

Krish Sankar
Analyst, TD Cowen

Thank you.

Jeff Su
Director of Investor Relations, TSMC

Okay, so Chris's second question is looking at high NA. He notes some of our competitors are both using already adopted or will adopt high NA earlier than TSMC. So his question, does this put us at a competitive disadvantage or risk compared to our competitors in terms of technology leadership?

Dr. Cici Wei
Chairman and CEO, TSMC

Chris? Let me answer that. We always... and many more. Thank you. Okay, so we say in 2030 we'll start to use it because we also think at that time high-end will be mature and we're also working very closely with ASM Bureau to establish a 12-inch photo mask by 2031 and at that time. We think that a high-end is a cost would be reasonable and for TSMC to make it into the mass production. And this is a very good tool. Let me emphasize that. And in a smaller geometry, it definitely has some advantage. whether that our technology, because we are using it later than our competitor. So disadvantage to TSMC? No, because we have confidence that we are still the best company to offer the most advanced technology to our customers.

Jeff Su
Director of Investor Relations, TSMC

Krish, does that answer your question? Thank you very much. Okay.

Krish Sankar
Analyst, TD Cowen

Thank you very much, Krish. Thank you, Jeff.

Jeff Su
Director of Investor Relations, TSMC

Okay. Operator, can we move on to the next participant, please?

Operator
Conference Operator

Yes. Charlie Chen, Morgan Stanley. Go ahead, please.

Charlie Chen
Analyst, Morgan Stanley

Hi, gentlemen. Thanks for taking my question. And also, graphic here, very strong AI semi-demand amid some recent stock market correction. So my first question is really about your in-edge capacity extension strategy. As far as I know, one of your IDM customers is spending capacity aggressively. So there are some concerns about this customer may insource more than outsource to you, right? So first of all, I'm not sure how you're going to deal with this for the business opportunity. And secondly, I remember last time at CC you mentioned about A14 could be a bigger node than N2. May I know whether that assumes the big IDM company will outsource more CPU, like server CPU at A14? Thank you.

Jeff Su
Director of Investor Relations, TSMC

Okay, so Charlie's first question is around IDM competitor. He wants to know very specifically if we see this competitor moving to in-source more. So his question is then our prior comment of A14 being a larger, bigger node than N2 has even been, does this include the server CPU from this IDM competitor? Which?

Dr. Cici Wei
Chairman and CEO, TSMC

Well, Charlie, we treat every customer fairly. So whether it's IDM or it's purely fiberless, we treat them the same. But of course, we take into consideration of their internal capacity. So we calculate our support. We

calculate our capacity buildup according to our own judgment. Actually, in our A14, we have seen more and more customers actually higher than the two nanometers activities so far. And we expect that the A14 will be a bigger node than our current N2 technologies.

Charlie Chen
Analyst, Morgan Stanley

I see. So it doesn't need to consider this idea will also outsource more. We can still have A14 to be a bigger node and until we set the right understanding.

Jeff Su
Director of Investor Relations, TSMC

Well, again, Charlie wants to know very specifically this customer's outsourcing plan, which you probably may need to ask them, but yeah.

Dr. Cici Wei
Chairman and CEO, TSMC

Well, Charlie, as I said, to be frank with you, I don't comment on a specific customer, but let me guarantee you that we take everything into consideration. Okay. Okay. Okay. Do you have a second question, Charlie?

Jeff Su
Director of Investor Relations, TSMC

Thank you.

Charlie Chen
Analyst, Morgan Stanley

Yes, I do. Thanks, Jeff. So, the second question is a kind of follow-up about your advanced packaging. From what I've seen that the ratio size is getting much bigger. Cici, you said last time or even two quarters ago about your response, you know, SOW, 3.5D. So lots of initiative is going on. So my question is that do you think those kind of a copious SOW 3.5D can really catch customers' very rapid developments of their larger radio-sized chip like 14-radical? And secondly, if some customer, they initially choose to use Intel's EMIP-T, and for some reason cannot get to sufficient demand. Are you okay to bail out or support customers for the cost version or capacity?

Jeff Su
Director of Investor Relations, TSMC

All right, so Charlie's second question is focused on the advanced packaging. I guess, Charlie, if I understand your question, summarize it. It is, of course, customers are moving to larger and larger reticle size

14X. So he wants to know TSMC's roadmap and solutions and how competitive we can be against, I think he mentioned specifically our competitors, EMIB-T. So how do we view our solution? Is it as competitive as our competitor? That's the first part of this question.

Dr. Cici Wei
Chairman and CEO, TSMC

All right, Charlie. Actually, I still think that TSMC's advance performance and many more. We have to offer them the best technology with enough capacity So far, let me share with you today's situation. We are in the real-world production of 5X radical size. I don't believe that anybody can do that today except the TSMC. And the yield is excellent. So our customers are very, very happy. and many more. We are working on the 9X radical size and moving into the 14X radical size. Of course, we are also working on the cold pass and to make sure that in the future we can offer a reasonable cost reduction. But so far, the cold wasp is still the number one choice for our customer. As time goes by, yes, our competitor offer a very competitive solution. Still, I want to say that today's situation, we are the only one that makes sure that the advanced packaging is a 5X radical size. And still, we are very competitive. I want to emphasize that.

Jeff Su
Director of Investor Relations, TSMC

And then Charlie's question, if the competitor cannot deliver on their solution, Charlie, I think you were saying, will you be willing to be something like a backup plan?

Dr. Cici Wei
Chairman and CEO, TSMC

I try to avoid to answer it directly, but let me say that. Yes, it will be the number one priority. I already indicated that TSMC customers' products can be introduced into the market smoothly. That's the number one priority. Okay, and that gives you enough hint.

Charlie Chen
Analyst, Morgan Stanley

Yes, yes, indeed. So, thank you for the answers. I hope you don't have any further questions.

Jeff Su
Director of Investor Relations, TSMC

Thank you. All right, operator, let's move on to the next participant, please.

Operator
Conference Operator

Next one, Sonny Lin, UBS. Go ahead, please.

Sonny Lin
Analyst, UBS

Good afternoon. Thank you very much for taking my question. So my first question is to have a bit more color on how we should think about CAPEX beyond 2026. Recall a few quarters ago, you mentioned if you are doing your job well, then you may be able to drive CAPEX to grow a bit less than top line. But now, obviously, the overall cloud air demand has further strengthened, and you are also willing to support your clients with more substantial expansion. And therefore, I wonder, at this point, when you look at maybe the coming two years, would you expect maybe KPEX to grow a bit faster, maybe in line with sales, or even a bit faster, just like for 2026? And then meanwhile, obviously, the tool price is also increasing, given a very tight supply. And therefore, going to 2027, will the higher tool price also be a driver for higher key pack as well? Thank you.

Jeff Su
Director of Investor Relations, TSMC

What was the last part of your question, Sunny? Higher tool price, higher what?

Sonny Lin
Analyst, UBS

When we think about 2027 key packs, should we also consider tool price inflation to be a meaningful variable for a lot higher key packs compared with the short term?

Jeff Su
Director of Investor Relations, TSMC

Understood, okay, sorry, okay, thank you. So Sunny's first question is about our Capex beyond 26, really, she's asking 27, 28, the next two years with the, you know, strong, Extremely robust demand that Cici indicated. Question is around our capital intensity the next two years. How do we see the capital intensity trending revenue growth versus a CAPEX growth part one? And then also the impact of tool inflation on the CAPEX outlook as well.

Wendell Huang
Senior Vice President and CFO, TSMC

Okay, Sunny, this is Wendell. It's a bit too early to share the CAPEX number beyond this year, but as we said in the prepared remarks, we have very strong conviction in the AI megatrend. Therefore, our CAPEX from 2026 to 2028 is expected to be significantly higher than the past three years, and this is a step up of our investment to support the customer's growth. We have no intention to leave any food on the table for others. The tool price inflation is real. The tool price, material, labor costs, et cetera. However, the majority of the CAPEX is always related to the long-term demand. So that will be the composition going forward. And capital intensity-

wise, as we always said, if we do our job right, the increase in revenue will outpace the increase in CAPEX. And that is still the case from what we are looking at.

Sonny Lin
Analyst, UBS

Thank you very much. If I may have a very quick follow-up on the KPAC side. Earlier, Wendell, you raised the margin dilution from overseas to, I think, 6% to 4% starting from 2027, given faster overseas expansion. But for the U.S., Still so far focused on Arizona. So does that imply for Arizona the expansion for the second phase will happen very quickly or you are actually accelerating the expansion for the third phase or even the other phases as well? Is there for the result for higher margin dilution for next year?

Jeff Su
Director of Investor Relations, TSMC

Okay, so Sunny's question is kind of about the puts and takes to next year's margin. She does note, as Wendell said in our prepared remarks, that the overseas fabs will widen a bit to 3% to 4% in the next few years. So she wonders what's driving that wider dilution. Cece did say we are pulling in the schedule for the second fab for 3 nanometer. Her question is, you know, are we also pulling in third fab? What's leading to this wider dilution?

Wendell Huang
Senior Vice President and CFO, TSMC

Okay, Sunny, as we mentioned, we are doing everything we can, wherever we can, to increase our capacity to meet the strong demand from the customers. And we are also accelerating everywhere, including in the U.S., We did mention before that the later part of the five-year period, the dilution, margin dilution from overseas will be three to four percentage point. And that still remains the case. So it's three to four percentage point in the second part of the five-year period.

Sonny Lin
Analyst, UBS

I see. Thank you very much for the clarification. My second question, I want to follow up on the- That was two questions, Sunny.

Jeff Su
Director of Investor Relations, TSMC

So that's already two questions. Can we, sorry, but we probably just to accommodate as many as we can, we're going to move on.

Laura Chen
Analyst

Sure.

Jeff Su
Director of Investor Relations, TSMC

Thank you for your understanding. Operator, can we move to the next participant, please?

Operator
Conference Operator

Next one, House Liu, Bank of America. Go ahead, please.

House Liu
Analyst, Bank of America

Yes, hi, CP, Wendell, and Jeff. Thanks for taking my questions and congrats on the great results. My first question will be on your view regarding the potential shift in AI demand mix. You mentioned in the prepared remarks that the AI exterior chipset demand is proliferating into a genetic AI demand, including CPUs and networking switches. We understand the overall AI investment is still pretty strong and even training stronger across the board. But can we get more clarity that are you seeing your customers demand shifting toward more efficient compute solutions, especially monetization gets more important? And how should we think about the incremental opportunity for your manufacturing and packaging business? Thank you.

Jeff Su
Director of Investor Relations, TSMC

So Haase's first question is on the AI-related demand. His question is, are we seeing a shift in the AI-related demand more and more to CPU or networking switches and away from AI accelerators? or any type of comment, yeah.

Dr. Cici Wei
Chairman and CEO, TSMC

Well, all I can say is, AI's demand is extremely robust. Okay, whether it's come from accelerator or it's more from the CPU side, it's not for me to make a comment. Although we did see the demand increase, from Gentic AI CPUs continue to increase. Yes, that is a trend today. Other than that, everything is very robust. And I want to emphasize again, in our judgment, We consider all the parameters and the demand actually still far above our capability today to supply and we are working very hard to narrow the gap. That's all I can say.

House Liu
Analyst, Bank of America

Okay, thank you. That's very clear. And my second question is just regarding the yield learning curve going forward for your dual technology tracks strategy going forward. So historically, I think you have been ramping up the yield of a new node through producing the chipsets with smaller diesigns and simpler design to improve the learning curve of a new node. But for the future node families supporting both a conventional power delivery for the applications like mobile and consumer applications, and Super Power Rail Technology for HPC and AI chipsets. Operating tool process architectures at the same time make the learning curve more challenging or increase the manufacturing complexity. And how should we think about the implications to your gross margins from the yield and also cost control perspective?

Jeff Su
Director of Investor Relations, TSMC

Okay, so Haase's second question is, his question is really about ramping a new node, the learning curve of yield and cost, and therefore the implication to gross margin, really, I think is what he's driving at. And his question is that in the past, a new node is mostly ramped with smaller die size and simpler design, but so today we have both the cost Thank you very much.

Dr. Cici Wei
Chairman and CEO, TSMC

Well, today's situation actually is a little bit different from previous years. Yes, we now have a very strong demand from smartphone and also AIHPCs applications. And so the... and many more. Thank you very much. and so the learning curve, yes, but we are doing a reasonable job and so the customer are very happy today.

House Liu
Analyst, Bank of America

Okay, thank you so much.

Jeff Su
Director of Investor Relations, TSMC

Okay, thank you. Operator, let's move on to the next participant, please.

Operator
Conference Operator

Off the line, McCrory. Go ahead, please.

McCrory
Analyst

Hi, I really appreciate you taking my question. I have a question on the power of getting better. So I want to understand how the power grid constraint led you to reduce your customer focus in the history? and also could this tighter and tighter power with the surprise make your customer actually accelerating adoption of your super power rail products for the better performance to work? Thank you.

Jeff Su
Director of Investor Relations, TSMC

Okay, so Arthur's first question is about the power supply or electricity supply. Is it a gating factor, and have we seen that lead to a reduction in customers' forecasts? And with the tighter, on the other side, or on the other hand, with the tighter power electricity supply, have we seen more customers' adoption of super power rail technologies?

Dr. Cici Wei
Chairman and CEO, TSMC

Well, let me update that. Definitely, the power supply situation is one of the consideration factors that we are looking into. And that's why also we do one more step to double-check whether the power supply situation in the U.S., and we have done all the study and so far so good, let me say that. And whether this kind of a situation, Change our customers' behavior and move more into the backside power rail? Yes or no. Whether you use the backside power, those kind of metallization scheme is based on your need for your product. So some of the accelerator might be using it, some of the... Did I answer the question? Okay. Do you have a second question?

McCrory
Analyst

Oh yeah, thanks, Jess. So just recall the previous discussion on the agentic AI demand on the CPU. So I wonder, you know, according to our previous framework, demand-focused framework, the little high-tech safety pros, including the CPU or not, and if we heard our clients Increase the CPU forecast significantly when is the next time we refresh our AI demand growth numbers.

Jeff Su
Director of Investor Relations, TSMC

Okay, so Arthur's second question is on, his question is really on our, we already stated, but anyway, our AI accelerator definition. He wants to know with the emergence of agentic AI in CPU, does that AI accelerator definition include CPUs or not? And if, when we will provide inclusion for him?

Dr. Cici Wei
Chairman and CEO, TSMC

Let me answer the question. It's not. It's not included in our AI demand calculation. The reason is very simple because we cannot identify which CPU user in the conventional server CPU or AI server CPU. And also that it

depends on our customer's application and their own allocation also. So... No, so far today, we stick to our initial very narrow definition on the AI's demand.

McCrory
Analyst

I understand. And so if we have seen a very strong secure demand, when we will respond?

Jeff Su
Director of Investor Relations, TSMC

Arthur, I think we already said very clearly, it's not part of the AI accelerator definition, it's a narrow definition, but it is certainly part of our business, okay? Yeah, sure. Okay, operator, in the interest of time, can we take question from the last participant on the line, please?

Operator
Conference Operator

Yes. Saheer Singh, Stifo Financial. Go ahead, please.

Saheer Singh
Analyst, Stifel Financial

Hello, thank you for the question. You know, into 2027, you have N3 turning accretive, and now that's crossed over. N2 is still in its dilutive ramp, and the overseas dilution is widening. So on the offset side, there have been reports of significant price increases across your mature and advanced nodes. Could you provide some color into perhaps some of that conversation and where pricing does move, does it typically apply across the existing contracted book or is it mainly being applied to incremental capacity above what customers have already committed to?

Jeff Su
Director of Investor Relations, TSMC

Yeah, okay, so the first question is talking about, I guess you're asking about the potential puts and takes for next year or you're asking specifically on pricing, sorry. Thank you very much.

Dr. Cici Wei
Chairman and CEO, TSMC

Well, we have discussed this kind of thing before, that our pricing strategy is very strategic. It also depends on the market segment, depends on the location, and depends on the technology and something. Once we offer the flexibility of the physical location, In the U.S., it will be a little bit different from the one we produce in

Taiwan. So, no matter what, we try to get our value to be recognized and we will give our shareholders the maximum value of our technology.

Saheer Singh
Analyst, Stifel Financial

Understood, thank you. For the second question, something you said in your prepared remarks stuck out to me was we will not be leaving food on the table. And earlier, I think it was maybe one or two weeks ago, there was the announcement via Global Foundries that they would be providing silicon interposers to TSMC. And so would love some color into how are you thinking through these strategic decisions in terms of procuring from some of the specialty foundries versus providing in-house.

Jeff Su
Director of Investor Relations, TSMC

Thank you. Okay, so his second question is, again, he notes that recently we had an announcement with Global Foundry on Interposer. So how do we view these partnerships and what is our approach strategically?

Dr. Cici Wei
Chairman and CEO, TSMC

Well, let me answer the question. We designed a deal with Global Foundry, and this is part of our overall strategy in the backend supply. Actually, our number one priority is to help our customer to be successful in their market. We want them to be fully supported by all the supply, including the front end and back end. Definitely, we have a big shortage on the back end, and we'd like to... work with our so-called partner with Global Foundry so that we can both TSMC and Global Foundry can support TSMC's customer for their product to be introduced with enough support and capacity.

Saheer Singh
Analyst, Stifel Financial

Understood. Thank you very much for my questions.

Jeff Su
Director of Investor Relations, TSMC

Okay, thank you for your questions. Thank you for all the participants. This does conclude our question and answer session. Before we conclude today's conference, please be advised that the replay of the conference will be accessible within 30 minutes from now. The transcript will become available 24 hours from now, and you can find both will be available through TSMC's website at www.tsmc.com. Thank you for joining us today. We hope everyone continues to stay well. Have a good autumn and we hope you will join us again next quarter. Thank you and have a good day.

Investor presentation



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