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Conference Call Transcript

TSM - Q3 2003 TSMC Earnings Conference Call

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PRESENTATION

Operator

Welcome to Taiwan Semiconductor Manufacturing Company's third-quarter 2003 results webcast conference call. Today's event is hosted by Miss Lora Ho, Vice President and Chief Financial Officer, and Dr. Rick Tsai, President and Chief Operating Officer.

This conference call is being webcast live via the TSMC website at www.TSMC.com and only in audio mode. Your dial-in lines are also in listen-only mode. At the inclusion of the management presentation, we will be opening the floor for questions. At that time, further instructions will be provided as to the procedures to follow if you would like to ask any questions.

Please be advised, for those participants who do not yet have a copy of the press release, you made download it from the TSMC website at www.TSMC.com. Please also download the summary (technical difficulty) to today's quarterly review presentation. Once again the URL is www.TSMC.com.

I would now like to turn the conference over to Dr. Elizabeth Sun, TSMC's Head of Investor Relations for the cautionary statement before the main presentation by Miss Ho and Dr. Tsai. Please go ahead, ma'am.

Dr. Elizabeth Sun - Taiwan Semiconductor - Investor Relations

Good morning and good evening to all participants. This is Elizabeth Sun, Head of Investor Relations for TSMC. Before we began I would like to state that management's comments about TSMC's current expectations made during this conference call are forward-looking statements subject to significant risks and uncertainties, and that actual results may differ materially from those contained in the forward-looking statements.

Information as to those factors that could cause actual results to differ materially from TSMC's forward-looking statements may be found in TSMC's annual report on Form 20-F filed with the United States Securities and Exchange Commission on June 23, 2003; TSMC's registration statement on Form F-3 filed with the SEC on October 21, 2003; and such other documents as the company may file with or submit to the SEC from time to time.

Now I would like to turn the conference call over to Ms. Lora Ho, our Vice President and Chief Financial Officer.

Lora Ho - Taiwan Semiconductor - CFO

Good evening and good morning everyone. Welcome to TSMC's third-quarter conference call. We have some slides available for

you to view as you listen to the call. You can view the slides through TSMC's website. As we go through the call I will referred to these slides by number.

First I would like to share with you some of the highlights of our third-quarter 2003 operating results. Please turn to slide number 4. As announced earlier today, our first-quarter total revenue amounted to NT\$54.9 billion. This is a record high for TSMC. Net income after-tax totaled NT\$15.2 billion, the highest since the first quarter of 2001. Earnings per share reached NT\$0.75.

TSMC ended the third-quarter with NT\$94.4 billion in cash and short-term investments. Our total long-term debt remained unchanged at about NT\$35 billion.

During the third quarter, we shipped a total of 992,000 8-inch equivalent wafers. Our overall utilization, which includes TSMC fabs, WaferTech and SSMC, was roughly 98 percent quarter. Please note that starting with the second quarter of 2003, we no longer take Vanguard's capacity into consideration when calculating our utilization percentage.

Let us go to slide number 5. Compared with the second-quarter 2003, revenue increased by 10 percent sequentially. This comes from a 12 percent increase in wafer shipments, a flat ASP, and a stronger NT dollar against the U.S. dollar.

During the quarter, overall utilization increased from 88 percent in the second-quarter 2003 to 98 percent in the third quarter. As a result, gross margin improved to 39 percent, up from 37 percent in the previous quarter.

Operating expenses as a percentage of total net sales was 9 percent for the quarter, down from 10 percent in the previous quarter. Net non-operating expenses show a significant improvement from the second quarter. The reasons are manifold.

First, operating results from SSNC, WaferTech, and Vanguard continued to improve, with SSMC turning profitable during the third quarter. Second, capital gains realized from selling certain equity shares from our other investments are less than those registered in the previous quarter. Total investment income reached NT\$361 million, lower than the NT\$810 million obtained in the second quarter. On the other hand, we did not have to write off any significant amount of fixed assets in the third quarter, either; whereas NT\$1.2 billion worth of obsolete assets from Fab 7 were written off in the second quarter.

Pretax income reached NT\$16.7 billion, representing a 33 percent sequential increase. Income tax expense increased from NT\$842 million in the second quarter to NT\$1.5 billion in the third quarter, resulting from a higher pretax income. Net income for the quarter was NT\$15.2 billion. Net margin was 28 percent versus 23 percent in the second quarter. This 5 percentage point sequential increase is worth noticing.

Let's go to slide number six. On a year-over-year basis, our revenue increased by 38 percent, primarily because our wafer shipments increased by 47 percent. Gross (indiscernible) was NT\$21.4 billion, a 57 percent increase over year-ago levels. Meanwhile gross margin improved from 32 percent to 39 percent. Total operating expenses, although increased 11 percent from the same quarter last year, represented only 9 percent of the total sales, down from 11 percent a year ago.

As for nonoperating expenses, our nonoperating expenses totaled NT\$141 million, substantially lower than the NT\$550 million registered in the same quarter last year. Largely it was a result of lower interest expenses after TSMC repaid NT\$9 billion corporate bonds.

TSMC had a net investment income of NT\$361 million versus a net investment loss of NT\$1.8 billion a year ago. This is mainly due to significantly improved operating results from WaferTech, Vanguard, and SSMC; and a realization of substantial capital gains from investments.

Pretax income and net income were NT\$16.7 billion and NT\$15.2 billion respectively, for the quarter, representing a year-over-year increase of 177 percent and 380 percent respectively. Earnings per share was NT\$0.70, five times the EPS amount of the same period last year.

Slide number 7 will provide you with a snapshot of TSMC's balance sheet at the end of third quarter and some key financial ratios. TSMC continues to maintain a very healthy balance sheet, as we ended the quarter with cash and short-term investments of NT\$94.4 billion, representing approximately a quarter of our total assets.

Our accounts receivable and our inventories all remain at very healthy levels. Despite the increase in total sales, accounts receivable turnover days improved to 41 days, down from 44 days in the previous quarter; while total accounts receivable remained virtually unchanged from the second quarter.

As for inventory, TSMC ended the quarter with the NT\$11.8 million in inventory, a level similar to that of the second quarter. Inventory turnover days improved slightly to 38 days. TSMC maintain a virtually debt-free company, as TSMC's total cash and cash equivalents far exceed its total liabilities.

Slide number 8 summarizes TSMC's cash flow for the quarter. As you can see, TSMC continues to generate strong cash flow from operations. During the third quarter, cash flow generated from operational activities totaled NT\$34 billion, which included NT\$15.2 billion from net profit, and NT\$15.5 billion from depreciation and amortization.

Cash used in investment activity was NT\$17.4 billion during the quarter. This includes capital expenditures during the quarter which totaled NT\$8.2 billion, and cash used to purchase short-term investments totaling NT\$8.6 billion, many in government bonds and money market funds.

Now let me turn to the business side. Slide number 9 provides a quick look at our revenue breakdown by technology. The top portion of the bar represents revenue percent (indiscernible) from 0.13 micron products. As you can see, revenue from 0.13 micron products now accounts for roughly 19 percent of our total wafer sales, up from 17 percent and 11 percent from the second quarter and the first quarter respectively. Revenue from advanced technologies, which include 0.13, 0.15 and 0.18 micron, accounted for approximately 66 percent of our total wafer sales, up from 62 percent in the previous quarter.

Please refer to slide number 10. If you will take a look at the revenue breakdown by application, for the third quarter revenue from computer segment represented 36 percent of our total sales. Revenue from communications also accounted for 36 percent of our total sales, up from 34 percent in the previous quarter.

Revenue from consumer segment represented 21 percent of our total sales, up from 16 percent in the second quarter. Revenue from consumer segment saw robust growth during the quarter, largely due to strong end-market demand from TV game players, digital still cameras, DVD recorders, and set-top boxes, reflecting seasonally strong demand in the third quarter. Demand for communication-related products also improved during the quarter, with growth centered around mobile phone-related products.

Slide number 11 shows the geographical breakdown of our revenue. Revenue from North America, Asia-Pacific, Europe, and Japan now accounts for 76 percent, 11 percent, 5 percent, and 8 percent of our total revenues of third quarter, respectively, similar to those in the previous quarter.

Slide number 12 shows the revenue breakdown by customer type. In the third quarter, revenues generated from Fables, IBM and system customers accounted for 73 percent, 26 percent, and 1 percent of our total sales, virtually unchanged from the second quarter.

Now let's take a look at slide number 13. This slide shows our fab utilization and ASP trend. As you can see, our ASP was essentially flat from the previous quarter, while overall utilization improved significantly to 98 percent from 88 percent.

Let's turn to slide number 14. This slide summarizes our installed capacity by fab. Our total capacity during the third quarter was 1,012,000 8-inch equivalent wafers, versus 990,000 8-inch equivalent wafers in the second quarter. Currently we expect our capacity for the fourth quarter to be roughly at 1,067,000 8-inch equivalent wafers. This is a 5 percent over the third quarter, and

the increase is mostly in advanced technologies. We anticipate that capacity for the advanced technology, that is 0.18 micron and beyond, will increase by 14 percent for the fourth quarter. We will continue to increase our capacity for advanced technologies in order to meet our customers' demand.

The next slide shows our capital expenditures. After the third quarter of this year, we have already spent approximately US\$700 million in CAPEX. Based on past experience, we expect our fourth-quarter capital expenditures will be higher than the average of the first three quarters for the year.

The last slide provides a recap of the major events during the third-quarter and early part of October; and we will leave that for you for reference.

Finally let me give you our guidance for the fourth quarter. Coming off a very strong third quarter, we expect wafer shipments to grow by a mid to high single digit percentage point, on a sequential basis. ASP will decline slightly. Revenue from advanced process technologies, that is for 0.13, 0.15 and 0.18 micron products, should remain at about two-thirds of our total wafer sales. Also, overall utilization rates including WaferTech and SSMC will be about 95 percent.

Demand should further strengthen in the communications segment. However, we expect a softening demand in the computer and consumer segments due to seasonal factors. With regards to capital expenditure, we estimate that total CAPEX for 2003 should approach US\$1.2 billion.

This ends my presentation today. Dr. Rick Tsai, our company President, and myself will entertain questions now.

QUESTION AND ANSWER

Operator

(OPERATOR INSTRUCTIONS) Matt Gable (ph), Calypso Capital.

Matt Gable - Calypso Capital - Analyst

I was wondering if you could give some color on what percent of total revenue 0.13 micron will be in the fourth quarter? Also, if you could give us some indication or color on how we should look at your CAPEX for 2004 as a percent of revenue? And what you think the proper historical range is?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Sorry, but we cannot give you the 0.13 micron percentage for fourth quarter today. We can comment on the CAPEX. For 2004 we definitely will increase our CAPEX compared to 2003, by a significant amount. But we have not finalized our numbers yet. I think we will give that number in our January conference call.

Given the last two years, this year and the last year, our CAPEX to revenue ratio is about 20 percent, roughly. I think that is somewhat below what we expect we should do. The Chairman pointed out earlier during the day that he expected the foundry company to spend roughly 25 percent. Maybe to (inaudible). So (technical difficulty) we are going to go back up from this point on.

Matt Gable - Calypso Capital - Analyst

What do you think the industry is going to grow at next year? Year-over-year growth for the semiconductor industry?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think during the past few months we have improved our outlook for fourth quarter this year and the overall 2004. We believe now for 2003 the industry is going to grow roughly from 13 to 15 percent. Actually only about five months ago people were still looking at a 9 percent, 10 percent range. In 2004 we are looking at 15 percent, and maybe even up to 20 percent range. But I think it is still a bit early.

Matt Gable - Calypso Capital - Analyst

Okay, thank you very much.

Operator

Michael McConnell with Pacific Crest Securities.

Michael McConnell - Pacific Crest Securities - Analyst

Regarding the product mix being flat sequentially, is that mostly due to the PC group, that grouping of customers being seasonally weak in the fourth quarter? Is that the way to look at that?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

You mean product mix for the third quarter?

Michael McConnell - Pacific Crest Securities - Analyst

For the fourth quarter, for guidance, 0.18 micron and below. They will remain relatively flat as a percentage of your revenues?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

For which, yes; I think for the PC group it does show somewhat of a seasonality factor for the fourth quarter. It is not actually really a huge drop. I think the factor is probably more pronounced for consumer. We're seeing actually a very good pickup, a continued strong pickup in the communication sector.

Michael McConnell - Pacific Crest Securities - Analyst

With your communication sector, what percentage of your communications revenue, looking in the fourth quarter, will be wireless versus wireline?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

(multiple speakers) More wireless than wireline. I don't think we give out -- we cannot really comment specifically on fourth quarter. But in general our wireless business is greater than that of wireline. I can also comment that the wireline, after a very long, I would say, wintertime (ph), is definitely showing some -- I am talking about enterprise network part; it is definitely showing some good signs.

Michael McConnell - Pacific Crest Securities - Analyst

Okay. Some clarification on just ASPs down slightly. Would that be anywhere from flat to down 5 percent? How can we think of that in terms of percentages?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

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Yes, that is what the Chairman indicated earlier in the day, from zero to 5 percent.

Michael McConnell - Pacific Crest Securities - Analyst

Okay, thank you very much.

Operator

Timothy Arcuri with Deutsche Bank.

Dan Barenbaum - Deutsche Bank - Analyst

This is actually Dan Barenbaum (ph) for Timothy. A question on, since your utilization is so high and it looks like CAPEX is going to be pretty strong in the fourth quarter and then moving forward; are delivery times for equipment stretching out? Is this something that you are concerned about? Is that something that is maybe driving your orders sooner rather than later?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think the major equipment suppliers I believe are seeing a better order picture compared to a couple months ago. Some of them are talking about a longer leadtime. However, we have communicated with them, sometime ago, about our requirements, now in fourth quarter and 2004. And we have I think adequate reserve of slots from our key suppliers. So we are definitely watching very carefully; but I do not think that we will have any impact on our capacity expansion plan.

Dan Barenbaum - Deutsche Bank - Analyst

Do you think that is something that, since you are better prepared, do you think that is something that might affect your competitors more than it affects you? Since you are better prepared than some of the other players.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Yes, I certainly believe so.

Dan Barenbaum - Deutsche Bank - Analyst

Thank you.

Operator

Mark Fitzgerald with Banc of America Securities.

Marati Abouey - Banc of America Securities - Analyst

This is Marati Abouey (ph) for Mark Fitzgerald. Could you maybe quantitatively talk about your yields at 300 versus 200 for advanced technology nodes, 130 or 180 or higher?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think the yields -- we are running both the 0.13 and the 0.15 in our 300 millimeter facility. 0.15, the yields is definitely equivalent and sometimes a little better than the 8-inch yield. 0.13 is catching up fast. It is not equivalent yet, but I think it is going to converge in a couple months.

Marati Abouey - Banc of America Securities - Analyst

Thanks.

Operator

Bhavin Shah, J.P. Morgan securities.

Bhavin Shah - JP Morgan - Analyst

I have a couple of questions. The volume growth outlook in 4Q, how is that affected potentially by some yield breakthroughs that you might have seen? A moment ago you just alluded to that. In other words, you perhaps are seeing much better yields than expected; and as a result you are seeing that high upside in the volume.

A related question is, since 300 mm pricing is probably in the range of two times the 8-inch, rather than 2.25; is that one of the factors putting perhaps some downward pressure on the ASPs?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

For your first question, I think many customers order with die number in mind. We know that number. So we have factored in the yields for those orders. So I believe we have adequate, shall we say, calibration of the wafer orders with the yield. I do not think we are overstating our volumes for the year from that point of view.

On the pricing part, you are asking whether the 12-inch wafer price is driving down our ASP? Is that what your question is?

Bhavin Shah - JP Morgan - Analyst

What I am saying is, perhaps one of the -- the 12-inch price is perhaps in the range of two times 8-inch. So as the 12-inch

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production ramps up, it is bound to put slight -- not a big factor, maybe 1 or 2 percentage points, but at least part of the downward pressure comes from that. Is that a fair analysis?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Not entirely. We actually try to maintain a level die price for our customers in most cases, whether they be producing 8 inch or a 12 inch. It is a very strong function of their die vice (ph) and that sort of thing. I think if there is any impact, it is quite minor.

Bhavin Shah - JP Morgan - Analyst

The technology mix has sort of stagnated, after really progressing pretty nicely. Do you think that is now starting to see progress again in the first quarter next year?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

(inaudible) Technology?

Bhavin Shah - JP Morgan - Analyst

What I mean is (technical difficulty) revenues as a percentage of total revenues has stagnated around the high 60s for a couple of quarters now.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

We do not have really a clear visibility into first quarter yet. And if we do, we probably cannot comment anyway. But I think it is fair to say that during the third-quarter, fourth-quarter time of the year, a lot of the -- some of the major orders (indiscernible) for consumers based on more mature technology, so the mix also did kind of show a slowing down of the 0.13 micron and 0.15, 0.18. I personally believe that the trend will resume next year, as we have seen over the years.

Bhavin Shah - JP Morgan - Analyst

The final question I have is the 25 to 30 per cent CAPEX to sales ratio; and depending on what sales number one assumes can be a big CAPEX number next year. Pretty big. How does that balance with your previously stated strategy of achieving a normalized ROE above 20 percent and so on?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

We haven't answered yet.

Lora Ho - Taiwan Semiconductor - CFO

I think we will have sufficient cash to still (ph) fund the additional CAPEX as we did in the past few years, even under the increased capital expenditure for 2004.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think the ROE is always a target for the Chairman and the management team here. The reason the Chairman said we are going to be more bullish in CAPEX next year, of course, it is we are seeing a good year coming. And we are going to take advantage of that, so that we can improve our ROE as a result. When the business environment changes, we have to adjust our (inaudible).

Bhavin Shah - JP Morgan - Analyst

I understand. I was just a little bit worried because (technical difficulty) comment from TSMC has been an oversupply in 2005 in the foundry industry. And if that is the case, just ahead of that ramping CAPEX significantly could be somewhat -- that is all, thanks.

Operator

Nittan Bahani (ph) with J.P. Morgan.

Nittan Bahani - JP Morgan - Analyst

I have an additional question on CAPEX. If you see the industry growing 10 to 13 percent next year, why do you see the need to spend a significantly more amount in CAPEX? Are you looking to build significant capacity? Or is it more towards upgrading your existing fabs?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Yes, we're talking about 15 to 20 percent industry growth. That is pretty significant growth. We are looking at, since we are running - so far we have been able to increase our 0.13 micron capacity in our Fab 6, which has 8-inch capability and fab 12, our first 12-inch facility. But pretty soon the demand is such that we have to start the fab 14 sometime late next year. I think that that has quite a bit to do with the CAPEX next year.

Nittan Bahani - JP Morgan - Analyst

Is this building of the 3-millimeter capacity that is driving the CAPEX increase?

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Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Yes.

Nittan Bahani - JP Morgan - Analyst

Thank you.

Operator

Ivan Goh with Dresdner Kleinwort & Wasserstein.

Ivan Goh - Dresdner Kleinwort Wasserstein - Analyst

One question. Can you perhaps give some idea as to how your capacity will grow from Q4 into Q1 next year? Should we expect at least some capacity additions (technical difficulty) or not at all?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think for Q1, the total capacity will probably not grow much; mainly because we have a short February, and we have the annual maintenance for our fabs. That will take some effective capacity away from a quarterly point of view.

Ivan Goh - Dresdner Kleinwort Wasserstein - Analyst

But do you think (technical difficulty) will aid the calendar effect and the maintenance effect, in terms of install capacity, would you be putting in any equipment or things like that?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Incrementally, yes. I think you're asking if we normalize. I think depending on (technical difficulty) 0.15 and 0.18 we will see some incremental increase, yes.

Ivan Goh - Dresdner Kleinwort Wasserstein - Analyst

Some; should I take some as around the 5 to 10 percent range?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I'm not sure we have that number at hand. I think you mentioned 5 percent?

Ivan Goh - Dresdner Kleinwort Wasserstein - Analyst

Yes.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

That is probably all right, closing on the (indiscernible) number.

Ivan Goh - Dresdner Kleinwort Wasserstein - Analyst

Thank you so much.

Operator

Donald Liu (ph) with Goldman Sachs.

Donald Liu - Goldman Sachs - Analyst

Can you comment on the utilization in the 4Q by different technologies? Also can you comment on the utilization for the 12-inch fab versus the rest of the fabs?

Lora Ho - Taiwan Semiconductor - CFO

We do not comment on the utilization for individual technologies. However, as the guidance that we just gave you, our advanced technology will account for two-thirds of all revenues.

Donald Liu - Goldman Sachs - Analyst

Okay, thank you.

Operator

Michael McConnell with Pacific Crest Securities.

Michael McConnell - Pacific Crest Securities - Analyst

Just a quick follow-up, regarding the utilization rate. If we're looking at a slight dip in the fourth quarter, going from 98 percent to 95 percent, can we expect gross margins to also downturn sequentially?

Lora Ho - Taiwan Semiconductor - CFO

I don't think you can look at it that way. Because our overall fourth-quarter capacity will be increased by 5 percent in total. And for the advanced technology the capacity in the fourth quarter will be increased by 14 percent. So the 95 percent utilization, under that kind of a scenario doesn't mean that our margin will be bad, will be lower than third quarter.

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Michael McConnell - Pacific Crest Securities - Analyst

I'm not saying it would be bad; I understand.

Lora Ho - Taiwan Semiconductor - CFO

Lower.

Michael McConnell - Pacific Crest Securities - Analyst

It is good. I'm just trying to get a sense for modeling, if we can expect maybe a slight downtick, very slight, from the 39 percent level that you did in the third quarter.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

It is the task (ph) for your model, then.

Michael McConnell - Pacific Crest Securities - Analyst

Okay, thank you.

Operator

Hiyari Manon (ph) with Deutsche Bank.

Hiyari Manon - Deutsche Bank - Analyst

Very roughly, if you could give me some idea about how your ASPs will be in terms of how much less and more, percentage terms, the computer versus communications versus consumer? I know that there will be a broad range of ASPs. But if I have to take across the segments, which would be the highest? And approximately what kind of a difference between these? I was just trying to get a feel like, if you're going to get increased mix towards consumer, what would be the overall trend in ASPs?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

We gave our guidance on ASPs overall (multiple speakers) quarter.

Hiyari Manon - Deutsche Bank - Analyst

(multiple speakers) Between the various segments.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I do not really believe we have that data from ASP by segments. We cannot really comment on that, I don't think.

Hiyari Manon - Deutsche Bank - Analyst

Okay, thank you.

Operator

Ashish Kumar, Credit Suisse First Boston.

Ashish Kumar - CSFB - Analyst

My first question is that (inaudible) observe the foundry industry, what do you think is the capacity expansion plan by the various players in that industry as a whole in 2004 over 2003? Looking only at non (inaudible) business.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

We used to believe, as you do; I do not really believe we have any better numbers than you do. I honestly believe that some of those numbers are still being worked out right now, as we are. There is a very dynamic environment. It is going to go up, for sure.

Ashish Kumar - CSFB - Analyst

Could you comment on book to bill trend in the last few months, as you usually give some insight every quarter?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think overall it hovers at the 1.2 plus range.

Ashish Kumar - CSFB - Analyst

1.2 plus?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

No, 1.0 plus B/B ratio; above 1 during the past few months. It is pretty stable. And if you consider this is a peak shipment season for the Christmas and the Chinese New Year, I think the booking is -- I will call the booking pretty reasonable, pretty good.

Ashish Kumar - CSFB - Analyst

And as a result of Chinese New Year being slightly earlier this time around, do you expect each month in fourth quarter, that the revenue each month will be stronger than the previous month?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I don't think we can comment on that. Good try, nice try.

Ashish Kumar - CSFB - Analyst

Sure. And (indiscernible), clearly the company is doing extremely well running at very high utilization, and I was thinking that most of your customers must be requesting you clearly to increase capacity, which you are sort of picking up anyway, but what is the sustainable (indiscernible); in other words, an average capacity utilization; 98 or 95 plus, and perhaps can we sustain quarter after quarter?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

You mean whether we can sustain 98 to 95 percent of our division? From business point of view or from operations point of view?

Ashish Kumar - CSFB - Analyst

From operations point of view.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Absolutely, absolutely. We can -- we would like to do better than that.

Ashish Kumar - CSFB - Analyst

You can sustain that.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Yes, we have proven that many times before.

Ashish Kumar - CSFB - Analyst

Thank you.

Operator

Daniel Heyler with Merrill Lynch.

Daniel Heyler - Merrill Lynch - Analyst

Your last comment was a good lead into what I was going to ask, in fact. Given your track record on efficiencies within the fabs and your operations people as things start to get tight, your track record

has been the ability to generate about 100 percent theoretically utilization. Do you sense that TSM can repeat that or, in fact, improve upon that? Obviously, the downturn was a pretty bad one, and you just managed to generate 20 percent operating margin on 60 percent utilization. So do you think that you've learned as an organization that you can, in fact, exceed previous benchmarks?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think the short answer to your long question is, yes, we can -- we should be able to repeat our performance before. Saying that, of course, I think the 12-inch fab is the first we are running right now. But I am pretty confident that with the learning curve that we are going through, I am also confident of that for the 12-inch.

Daniel Heyler - Merrill Lynch - Analyst

So 12-inch would be a slightly greater uncertainty, given that's new, but in terms of your other mainstream 8-inch fabs, you think you can repeat.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Oh, absolutely.

Daniel Heyler - Merrill Lynch - Analyst

Then a quick follow-up. Given the broadening base of demand for (technical difficulty) various geometries, and the potential of building tips (ph) to Shanghai, which is under construction now, and I believe installation for equipment should happen in the first half, right? Would that potentially represent an interruption in terms of customer delivery? And how do you plan to manage that?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

That actually has been planned in our current capacity. As you know then you would plan to move some of the older equipment from Taiwan to China for the first installment. We're looking at it very carefully. And it is all planned into our current (technical difficulty). It should be all right.

Daniel Heyler - Merrill Lynch - Analyst

How long does that take, Rick, to move a fab? How long does that take?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I do not want to mislead you. We're not going to move 20,000 wafers worth of the equipment in two weeks to China. I think we

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are going to do that in a gradual way. We are going to move, maybe, (indiscernible) to begin with. It is not a big bang.

Daniel Heyler - Merrill Lynch - Analyst

Okay. So that implies a fairly gradual ramp there, assuming that you don't buy equipment and move equipment.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

That is right. What we are going to do is bring up our customers there. And it takes time to bring up customers and qualify their product.

Daniel Heyler - Merrill Lynch - Analyst

Okay, great. Thanks.

Operator

Pranab Kumar Sarmah, Daiwa Institute of Research.

Pranab Kumar Sarmah - Daiwa Institute of Research - Analyst

The last quarter and the third quarters during '03, we saw quite significant increase on the revenue, the 0.18 micron. Could you give us some color? Like what product range has been using the 0.18 micron?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

The 0.13 is actually being used by many different applications. It is really probably one of the widely used technologies, most used technologies for our customer base. If I look down our customers' products, I can find almost every one of them having 0.18 micron technology. Computer, consumer, and communications. That is probably why. The fact that it is being used the most broadly; in other words, being that close (ph).

Pranab Kumar Sarmah - Daiwa Institute of Research - Analyst

Could be like 0.1 (ph) micron will increase significantly on fourth quarter, that is why probably your ASP is probably going a little bit down? I understand probably project (indiscernible) is high on 0.18 micron?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I don't think we can comment directly on your question. But yes, I think as I mentioned earlier, 0.18 micron is being utilized very

broadly by our customer base. I believe it has a very long (indiscernible) life ahead of it.

Pranab Kumar Sarmah - Daiwa Institute of Research - Analyst

Could you give us some color on the fab 14 starting period? When you intend to start that particular fab? And what (indiscernible) capacity you plan to install by the end of 2004?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

The Chairman mentioned earlier in the day that we expect that to start production late next year. We have not fully or totally decided exactly the (indiscernible) and type of things. But I believe we will be embarked upon that very quickly. As you know, the clean room and the facility are ready and available for crude (ph). So we probably will (inaudible) in that.

Pranab Kumar Sarmah - Daiwa Institute of Research - Analyst

You also earlier tried to put 12-inch (ph) in Fab 6-B. Does that plan continue? Or it totally has gone now?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I am not sure what you mean by Fab B. Or Fab 6? Maybe what you meant was two years ago we did have some 12-inch pyler (ph) line in part of the Fab 6. Is that what you mean?

Pranab Kumar Sarmah - Daiwa Institute of Research - Analyst

Yes, that is it exactly. You had, I think, two lines or something like that. But I'm not sure whether -- I think that time you did mention probably around 2004 you may put some lines if necessary. But I'm not sure whether that plan is still on, or it is totally not there?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Let me just tell you where we are now. Basically Fab 6 is almost totally full, with 8-inch equipment for 0.13 and 0.15, 0.18. The 12-inch pyler (ph) line which we installed two years ago were moved out.

Pranab Kumar Sarmah - Daiwa Institute of Research - Analyst

Okay. The last question is probably on this, it will be (technical difficulty) made some short-term investment of around NT\$8 billion last quarter. Could you give us some color? What is this particular product? And on similar lines on the financial side, if

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you accrue (ph) your replacement rate 100 percent, do you accelerate the depreciation policy?

Lora Ho - Taiwan Semiconductor - CFO

Are you asking about short-term investments? That was your first question?

Pranab Kumar Sarmah - Daiwa Institute of Research - Analyst

That was the first question; and if we go for over 100 percent replacement rate, do you go for accelerated depreciation on this policy?

Lora Ho - Taiwan Semiconductor - CFO

We do not adopt accelerated depreciation policy. Currently we use five years, straight line. Back to your earlier question on the short-term investments, there are many on government bonds and some money market funds.

Pranab Kumar Sarmah - Daiwa Institute of Research - Analyst

Those are short (inaudible)? Less than one year, everything.

Lora Ho - Taiwan Semiconductor - CFO

Yes.

Pranab Kumar Sarmah - Daiwa Institute of Research - Analyst

Thank you very much.

Operator

Leo Li with ABN Amro Asia Securities.

Leo Li - ABN Amro Asia Securities - Analyst

Regarding the TSMC revenue growth rate. You mentioned that this year the semiconductor growth is around 13 to 15 percent year on year. But looking at your top line, only about a 23 to 24 percent. So you are only growing like 8 percent more than the industry growth rate. Compared to last year, you grew 28 (ph) percent year on year, with the industry only about 2 percent growth. Are you seeing that this year's growth rate is below your expectation? And do you expect next year, if a 20 percent (technical difficulty) assuming 17 to 20 percent year-on-year growth for semi, are you expecting to grow only (ph) 10 percent on top of that? That is my first question.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Our Chairman said many times during the past few conferences, especially this afternoon, he especially mentioned before 2001 we were in kind of more of a high-growth mode. You were there, Leo. But I can repeat for other people's benefit. But '01 and '02 were really -- (indiscernible) down in '02's recovery. So the base was very low for '01. Just like why Chartered now has a 22, 26 percent growth; because they have an extremely low base to start with.

And '03 I think is a more real recovery for the industry. And we are doing -- some more is that he is now expecting a more moderate growth for the company going forward. He is looking for 20 percent kind of average growth rate. I think 23, 24 percent growth in 2003 is reasonably good. We cannot comment on next year's growth now; but I think Morris's overall comment on the growth rate still of course stands.

Leo Li - ABN Amro Asia Securities - Analyst

The second question is, assuming you're going to (technical difficulty) under current CAPEX, (inaudible) now for example I heard from Tokyo Electron, the ASP of the equipment is dropping. So assuming you're going to ramp up 12K 12-inch next year, how much CAPEX do you need for that?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I don't quite understand your question. You're talking about Tokyo Electron?

Leo Li - ABN Amro Asia Securities - Analyst

I am saying that you are going to ramp up 12-inch capacity by an additional 12,000 wafers next year. How much CAPEX do you think you can spend right now for that 12K 12-inch?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Again, you know we are still working on the CAPEX for next year. It is going to be significantly higher. As to your (technical difficulty) for 12K investment, the CAPEX type of number, it also has a lot to do with the incremental increase for the new investment.

But we are going to increase capacity for both Fab 12 and (technical difficulty). And we are going to purchase equipment for Fab 14 startup. So what we are going to have is a combination of both. I guess we don't have a direct answer to your question.

Leo Li - ABN Amro Asia Securities - Analyst

My last question is that you mentioned in your technology roadmap, talking about next year you're going to spend some effort in launching nonvolatile memory. Can you comment a little bit, how much market opportunity you're looking for with this launching nonvolatile memory platform, given you have been so successful in the embedded flash platform? That is my last question, thank you.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

That is a relatively new technology being just developed by a few, I would say, very innovative companies. I think we have a good relationship with most of them. We are installing their technology in our processes. And we are in the process of qualifying them.

As to how big the market there is, I think that remains to be seen. We have many customers showing interest. I would say some of them showing strong interest in utilizing that technology, which you know is mainly for a low-density embedded memory application. A year from now I probably can tell you a lot more; but right now it is really in the development and the qualification stage.

Leo Li - ABN Amro Asia Securities - Analyst

Okay, thank you very much.

Operator

Shekhar Praminick for Prudential Securities.

Unidentified Speaker

This is Sayad (ph) for Shekhar. Just maybe one more question on CAPEX for next year. I guess in terms of the spending, you are going to be focusing primarily on the Fab 14 and Fab 12. But with some of the equipment moving over, on a slow basis, over to TSMC Shanghai, is there any room for, or any thoughts at this time, of expanding some of your 200-millimeter capacity in 2004?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Yes, I think we are seeing continuously strong demand for our (ph) points, and the 0.15 and 0.18. We will not build of course a new fab, other than of course a China fab. But we will take advantage of the business opportunity and install some incremental 0.15, 0.18 capacity to meet the customer demand. Actually we are doing that. If you look at our capacity for 0.15 or 0.18, 2003 compared to

2002, we added I think roughly almost maybe 200K total. Maybe 150K to 200K capacity through incremental increase.

Unidentified Speaker

Have you determined which fab you will be taking equipment out of, to move to Shanghai at this point?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

It is going to be from -- we have a pool of tools from our fabs, what we call idle tools (ph) or underutilized tools. (multiple speakers) And we are going to move part of the capacity from our Fab 7 in combination.

Unidentified Speaker

Thank you.

Operator

Ashish Kumar with Credit Suisse First Boston.

Ashish Kumar - CSFB - Analyst

(technical difficulty) nanometer and below, do you think that the Japanese could also try to provide confi (ph) services, like IBM started with 0.13; and now transmitter applying Fujitsu's (technical difficulty) talking to them. Do you see them competing, perhaps in a year's time?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

You mean would a Japanese company come into advanced technology foundry, is that what you are saying? I personally believe that you are seeing a special case in the transmitter case. We do see what I will call a strong recovery of the Japanese semiconductor industry during the past six months or so, I think.

What we understand is most of the activity is for their own use, internal use for those major Japanese IDM companies. They were in kind of a foundry business in their opportunistic manner a long time ago. We are not seeing that coming back for advanced technology, to tell you the truth, much at all.

Ashish Kumar - CSFB - Analyst

R&D expense as a percentage of revenue has been gradually coming down. This quarter fell to about 560 basis points. Just for modeling, shall we build a similar level going forward? Or will it increase as you ramp up more R&D for 90-nanometer and below?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

We have been keeping (multiple speakers) -- I think we have been running our R&D expense at about roughly 50 (ph) percent level for some time.

Lora Ho - Taiwan Semiconductor - CFO

5 to 6 percent level.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think of course if we continue growing our revenue, I think Lori just said a 5 to 6 percent level is probably a good number for your model.

Ashish Kumar - CSFB - Analyst

Thank you very much.

Operator

Bhavin Shah with J.P. Morgan securities.

Bhavin Shah - JP Morgan - Analyst

Over the last 12 months, my guess will be that pricing for (indiscernible) have fallen probably about 20 percent. Given what you feel about the industry, stronger outlook next year, better utilization (technical difficulty), would you say that the next 12 months one can expect pricing erosion to be much less than that of what we saw in the last 12 months?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

That is a good question, and a difficult question of course, you know that. I believe that -- of course, the pricing is determined by the overall demand and supply, overall foundry supply, some of which will come from our competitors. But I do believe going forward, yes, the pricing probably will gradually move. But I cannot say at what point right now. We are looking forward to hopefully a better pricing environment next year.

Bhavin Shah - JP Morgan - Analyst

Do you expect (technical difficulty) revenues from 0.11 micron in the first quarter of next year?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

What? Revenue?

Bhavin Shah - JP Morgan - Analyst

Yes, any meaningful revenues from 0.11 micron heading into first quarter next year?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think, yes. We are (indiscernible) on the production of 0.11 micron in the first quarter next year. Yes, the real ramp is probably going to happen after that.

Bhavin Shah - JP Morgan - Analyst

Thank you.

Operator

Shalesh Giansi (ph) with Nomora (ph) Securities.

Shalesh Giansi - Nomora Securities (ph) - Analyst

My first question is on the 0.13 micron capacity. What do you expect the capacity per month on 0.13 micron to be by the end of this year? And perhaps by third quarter next year?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I am not sure we have that data. I believe we are going to increase to 45 percent. I mean, the numbers vary from month to month. But I think that is about -- we are going to increase quite significantly from fourth quarter, end of fourth quarter to end of third (ph) quarter next year.

Shalesh Giansi - Nomora Securities (ph) - Analyst

In your last conference call, you mentioned that you would be ending the year close to about 35,000 wafers per month. So does that money still hold? Or are there any changes to that number?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

35,000?

Shalesh Giansi - Nomora Securities (ph) - Analyst

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Yes. (inaudible) excluding the 12-inch.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

End of this year we are going to run about 55.

Shalesh Giansi - Nomora Securities (ph) - Analyst

About 55,000.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Yes, per month, end of this year.

Shalesh Giansi - Nomora Securities (ph) - Analyst

Okay. Will you comment on the leadtimes on your 0.13 micron, as to where we stand in terms of leadtimes? And also if you could help us understand as to what other (technical difficulty) three applications on 0.13 micron?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Three application, I think pretty much follows the big deals (ph), the wireless handsets chips, the other; PODs; we were DVD application also. As far as leadtime, I think running anywhere from probably three to six months.

Shalesh Giansi - Nomora Securities (ph) - Analyst

You said three to six months?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Roughly, except for maybe one or two. Like scanners (ph), some of them can go up to seven to nine months. But most of them are three to six months time.

Shalesh Giansi - Nomora Securities (ph) - Analyst

Some of your major customers on 0.13 micron, they have noted dramatic improvements in yields at TSMC in their comments. So given that you had some of the customers who were taking chips on the die-based pricing, overall does it help improving the blended ASPs for your 0.13 micron in the current quarter?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

In general, of course, it does help the wafer ASP, yes. It helps blended ASP in general.

Shalesh Giansi - Nomora Securities (ph) - Analyst

But besides that, regarding ASPs going down relatively in the next quarter, so is there any pricing pressure in terms of the nodes? If you could help me understand that part.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Pricing pressure (indiscernible) quite across the board. The overall environment is still quite harsh from that point of view. So across the board.

Shalesh Giansi - Nomora Securities (ph) - Analyst

Which nodes are you seeing the pricing pressure?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I just said we are seeing pressure from 0.35, 0.25, all the way to 0.13. It is a matter of -- yes, I think that is the case.

Shalesh Giansi - Nomora Securities (ph) - Analyst

Okay, thank you.

Operator

Leo Li with ABM Amro.

Leo Li - ABN Amro Asia Securities - Analyst

Yes, sorry (indiscernible). I think that the first question I would like to ask is regarding (indiscernible) going to the 17 nm (ph), they are using (indiscernible) as their technology driver. In terms TSMC's perspective, what kind of (indiscernible) are you seeing will be the driver for 90 nm (indiscernible) technology? And my follow-up question would be that, using embedded memory, particularly embedded (indiscernible), is a key important sector for your success at the 90 nm and beyond. That's my first question.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

The driver we believe will be very similar. I think two main areas, the low-power handset base band (ph) chips and the other area is probably high-speed graphics chips. Embedded, you're talking about embedded SRAM, right?

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Leo Li - ABN Amro Asia Securities - Analyst

Yes, that's right.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think the 1T RAM (ph) is very important technology for the successful use of the 90 nm and beyond. We are certainly working very hard on that.

Leo Li - ABN Amro Asia Securities - Analyst

You also developed a 1T high-density SRAM. Is that technology from Moses, is that different from your original 1T S (ph) restructure?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

We have been working with Moses for a couple of generations already. I think we continue to have that relationship going forward, but we are also looking at any technology structure that can give us the best density and power function of performance.

Leo Li - ABN Amro Asia Securities - Analyst

My second question regarding your low-k, your low-k (indiscernible) it seems that at 0.13 micron you are only offering the high-speed (indiscernible) digit version. Why not the low-power version; is there any particular reason for that?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think mainly the customers who can really benefit from the low-k technology are the ones who need performance or the performance with reasonably low power. I think that is mainly from application point of view. It is not that we don't like it.

Leo Li - ABN Amro Asia Securities - Analyst

My last question is, it seems that you are having some of the (indiscernible) silicon in the 90 nm node, but also you are having (indiscernible) and a 65 nm (indiscernible). From the technical point of view, why not just moving (indiscernible) the 90 nm, so you need to (indiscernible) the R&D (indiscernible) at SOI?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Leo, moving into any new technology with new material, be they (indiscernible) silicon or SOI is usually a big endeavor for us and for customers. We just moved into copper and now we're in the

process of moving into low-K. So I think the SON (ph), the trans-silicon (ph) definitely has its advantage from technical point of view that will give us more (indiscernible) customers (indiscernible). They certainly can do very well with our (indiscernible) CMOS technology with copper and low-K. We continue to invest in R&D and do maybe some small volume type of thing, but we don't feel that 90 nm is the right node to push such technology. Customers do not need it.

Leo Li - ABN Amro Asia Securities - Analyst

Okay, thank you very much.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Operator, how many more questions are --?

Operator

We have one more questions.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think this probably should be the last question for the evening.

Operator

Daniel Heyler with Merrill Lynch.

Daniel Heyler - Merrill Lynch - Analyst

Just very quickly, a follow-up question on your technology ramp. You talked about 0.11 nodes. Is that -- how long has that been in the books and did you expect that to be a major node? What percentage of revenue do you think that will be?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Your voice was breaking, so it's kind of difficult to hear you well. I think I understand your question. For 0.11, I think -- I am not sure it is officially on our roadmap yet, but we are definitely having a few very key customers designing in that technology. We believe this is going to be also a very successful (indiscernible) node, complementing our 0.13 micron. But to the percentage of revenue, I do not really know.

Daniel Heyler - Merrill Lynch - Analyst

Okay, that's (indiscernible) kind of a point as 0.15 it to 0.18. It is kind of a 0.13 variant that's relatively similar; is that fair to say?

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Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Yes, I would characterize it that way, yes. Yes, I think if you look at our current application, 0.15 and -.18 both work very well, and we serve our different set of customers very well to complementing technologies. We are certainly optimistic about (indiscernible) to 0.11. The technology, of course, at TSMC.

Daniel Heyler - Merrill Lynch - Analyst

Okay, great. Just last (indiscernible) and then you can go home and go to bed. Is the (indiscernible) pressure that you are seeing at this stage in the cycle any different than you would normally see as the cycle picks up, or is this fairly -- would you characterize this kind of environment as fairly normal before obviously (indiscernible) expand and prices start to rise?

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

I think -- I mean this downturn is, as you know, more severe than most of the downturn we have seen; more severe and longer. So the pricing pressure seems to be lasting longer. However, I do believe that if you look at the past cycles that there is certainly a pricing change with the capacity tightening up. I do not have any reason to believe that the past trends will change going forward. But my crystal ball is about as good as yours.

Daniel Heyler - Merrill Lynch - Analyst

Okay, thanks a lot.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Thank you.

Operator

Ms. Ho, there are no more questions at this time.

Dr. Rick Tsai - Taiwan Semiconductor - President & COO

Thank you.

Lora Ho - Taiwan Semiconductor - CFO

I think this will end our conference for today. Thank you very much everybody.

Operator

Before we conclude TSMC's third-quarter 2003 results webcast conference call today, please be advised that the replay of the conference call will be only be accessible through TSMC's website at www.TSMC.com. Thank you all.

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