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PRESENTATION

Operator

Welcome to the TSMC's Third-Quarter 2008 Results Webcast Conference Call. Today's event is chaired by Ms. Lora Ho, Chief Financial Officer and Vice President, and Dr. Rick Tsai, Chief Executive Officer and President. This conference call is being webcast live via the TSMC website at www.tsmc.com, in only audio mode. Your dial-in lines are also in listen-only mode.

At the conclusion of management's presentation, we will be opening the floor for questions. At that time, further instructions will be provided as the procedure to follow if you would like to pose any questions.

Please be advised, for those participants who do not yet have a copy of the press release, you may download it from TSMC's website at www.tsmc.com. Please also download the summary slides in relation 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, with a cautionary statement before the main presentation by Ms. Ho and Dr. Tsai.



Elizabeth Sun - Taiwan Semiconductor Manufacturing Company, Ltd. - Head, IR

Thank you, Charissa. Good morning and good evening to all participants. This is Elizabeth Sun, Head of Investor Relations for TSMC.

Before we begin, 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 April 15, 2008, and such other documents as TSMC may file with or submit to the SEC from time to time.

Except as required by law, we undertake no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

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

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Thank you, Elizabeth. Good morning and good evening to everyone. Welcome to our Third-Quarter 2008 Earnings Conference Call.

In summary, our third-quarter business saw an improvement from the second quarter with demand growth across the board. TSMC registered nearly TWD93 billion revenue, which was the second highest quarterly revenue in our history. If compared on equal footing, that is if we do not consider the expensing of employee profit sharing, net income and EPS would have been higher than those obtained in 4Q '07, which was the quarter with the highest revenue.

Output utilization was close to 100% in third quarter. Even with employee profit-sharing expensing, we achieved more than 46% gross profit margins, a level higher than that of third quarter 2007, which had a similar utilization rate, more favorable exchange rate and without carrying the burden of employee profit-sharing expensing in that quarter.

We have demonstrated, once again, our ability to consistently make money and improve profitability.

Now I will start to go over the slides, then I will give you the outlook for the fourth-quarter '08. Please refer to the quarterly financial summary slides on our website. All dollar figures are in NT dollars unless otherwise stated.

Now let me give you some detail about third-quarter results. Our third-quarter business see an improvement from the previous quarter. We shipped 2.4 million eight-inch equivalent wafers, which was about 3.5% more compared to the previous quarter. NT dollars depreciated 2.4% on average over the quarter, and our reported revenue and margins benefited from it.

Our revenue was TWD93 billion, and our gross and operating margins were 46.3% and 35.4% respectively. EPS was TWD1.18 for the quarter, a sequential increase of 7.5%. Free cash flow generated during the third quarter doubled to be TWD45.5 billion, and return on equity was 27%.

Let's take a closer look at our income statement for sequential and year-over-year comparison. Please let me remind you, again, that accounting numbers reported for 2007 do not reflect the effects from the employee profit-sharing expensing. This is a major difference from 2008.



That being said, our third-quarter revenue increased 5.5% sequentially and 4.5% year-over-year. Compared with 2Q '08, gross margin rate increased 0.7 percentage points, and operating margin rates increased 0.9 points reflecting a favorable change of exchange rate.

Now operating income was TWD1.3 billion, and we booked TWD185 million long-term investment gain. Net profit margin rate was 32.9%.

Now let's examine our revenue by applications. On a quarter-over-quarter basis, demand grew across the board. Revenues from computer, communications and consumer applications increased 9%, 7% and 1% respectively. Overall revenue from computer, communications and consumer applications accounts for 33%, 41% and 20% of all wafer sales.

In terms of revenue by technology, we continued our strong ramp of 65 nanometers during the quarter. Revenue from 65 nanometer accounted for 25% of total wafer revenue. This is up 7 percentage points from last quarter. We expect 2008 to be a year for a strong 65-nanometer business ramp.

Total revenue from advanced technologies accounted for 66% of wafer sales, up 3 percentage points from the second quarter.

Now let's move to the balance sheet and cash flow statements. We ended the third quarter with TWD158 billion in cash and short-term investments, down from TWD224 billion in the last quarter. This is mainly due to the payment of cash dividends in the third quarter.

Average collection period for accounts receivable came up by one day to 43 days, while days of inventory came down two days to 47 days. Our net fixed asset turnover was 1.4 times.

Total cash inflow generated from operating activities in the third quarter reached TWD56 billion. Capital expenditure was TWD10.4 billion, which was TWD12 billion less than the previous quarter.

Free cash flow went up to TWD46 billion, mainly due to less capital expenditure and a tax payment in the quarter. There was TWD77 billion paid for cash dividends, TWD24 billion spent for share buyback and TWD18 billion net investment in short-term investment. We ended the third quarter with TWD73 billion less in cash.

Now let's turn to capacity and CapEx. Total installed capacity for the third quarter was about 2.4 million eight-inch equivalent wafers, about 5% more compared with second-quarter '08. We expect the fourth-quarter capacity to be 2.5 million wafers, up 3% sequentially, mainly due to the productivity improvement. 2008 capacity is expected to reach 9.4 million wafers, up 13% year-over-year with 27% growth for 12-inch wafer capacity.

We spent \$332 million in CapEx during the third quarter. Till the third quarter of 2008, total CapEx reached \$1.5 billion. The total CapEx for 2008, the whole year, remains at \$1.8 billion, unchanged from our previous guidance.

With that, let me give you the outlook for the fourth quarter of 2008. Based on current business expectations and a forecast exchange rate of TWD32.73, we expect our consolidated revenue to come in between TWD69 billion to TWD71 billion. In terms of margins, we expect our fourth-quarter gross margin to be between 34% and 36%, operating profit margin to be between 21% to 23%.

This concludes my remarks today. Now I will turn the call to Dr. Rick Tsai, our CEO, for his remarks.



Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Good evening. I'd like to first comment on the business outlook beginning with the year 2008. In this very severe business environment, semiconductor industry certainly cannot be excluded from the impact. We are now seeing the semiconductor industry revenue to decline by about 10% in the fourth quarter of 2008.

So as a result, the semiconductor industry in the whole year of 2008 will like to be flattish compared to 2007. So on a full-year basis, TSMC should still outperform the semiconductor industry, and we'll deliver positive growth in 2008.

Now let me turn to 2009. We now expect the semiconductor industry to decline by mid to high single digits in 2009. I'd like to add, with very little visibility as of now, this projection, of course, is subject to, most likely, changes going forward. We have put in some conservative estimates of the system units shipments for 2009. However, we really cannot say we have a clear picture for the year.

And in this highly unsettling economy, also due to supply chain's action in reducing inventories very aggressively, we believe the foundry sector will likely underperform the overall semiconductor industry in 2009.

Now with such severe challenges ahead of us, I'd like to comment on what TSMC is doing and will do. As you all know, we are in an unusually challenging environment. Global financial markets are in unprecedented turmoil, and a global economic recession is looming. We are preparing ourselves to weather the storm well, and we are preparing ourselves to come out of this storm strong and stronger.

What we're going to do will be in the next six categories. First, we are reviewing our capital spending in 2009 very cautiously. We expect to cut down our capital investments next year significantly. We will invest, however, in 40-nanometer capacity and our R&D requirements.

Second, we will strengthen our cost reduction and expense control efforts as we have been doing for quite some time. We believe, with this challenge ahead, we will make further progress in that area.

Thirdly, in addition to the steady improvement of the cost and expense control, we are also working on structure improvement in our manufacturing cost area.

Fourthly and even more importantly, we will continue to invest aggressively in our future, both in technology and in our capabilities. We are not only going to invest in advanced technology area, we will also invest heavily in the mainstream technology capabilities. We expect to expand our market, our customer base and, of course, our revenues further with such efforts. We are confident that TSMC will emerge as a stronger and better company when the market and the economy eventually recover.

Fifth, TSMC is committed to achieving our target structure profitability. We will do so through improving our cost structure and by maintaining reasonable pricing.

Sixth, meanwhile, we will continue our dividend policy of maximum cash return, and we are committed to paying TWD3.00 dividend per share in 2009.

These are my remarks. Thank you. Elizabeth?

Elizabeth Sun - Taiwan Semiconductor Manufacturing Company, Ltd. - Head, IR

Operator, I think we can open the floor for questions now.



QUESTIONS AND ANSWERS

Operator

(Operator Instructions). And your first question comes from the line of Shailesh Jaitly of Nomura Securities. Please proceed.

Shailesh Jaitly - Nomura Securities - Analyst

Yes, hi. Thanks for taking my question. This is Shailesh Jaitly from Nomura.

Firstly, a question for Rick Tsai, if you could just clarify. You talked about the very early expectations of 2009, semi growth number -- semi decline numbers actually, in revenue terms. In comprehending that estimate of mid to high single-digit decline for semi industry, what kind of unit growth, unit system growth, are you looking at?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Yes, I agree with you that this is early for projecting the 2009 semiconductor industry. We have come across many questions, however, from investors and the analysts, so that's why we decided to share some of our views with you.

And as I said earlier, this is of course an early projection. I would definitely expect this projection to change as the year goes ahead.

So the assumption, I think mostly for the PC we're now -- we are putting in negative growth units again from mid to high single-digit. We are also projecting handset to decline in the unit shipment, also, along with the consumer electronics, especially in the developed economies. I think the growth will continue -- we believe the growth will continue in the developing countries, however, at a much lower rate compared to the last few years.

Shailesh Jaitly - Nomura Securities - Analyst

I understand. For you, the PC or the computing segment was the highest growth driver. Looking at -- and yesterday, we heard from SPEL they were guiding at 8% to 13% declines as they get into the fourth quarter.

You have talked about the broader sense about 10%. Is the computing decline going to be more than the corporate average as you go into the fourth quarter or less than the corporate average?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Okay. For our shipments here, our fourth-quarter computer-related wafer shipment, we expect to see over 20% of decline, which is very severe compared to a more -- compared to a seasonal, for instance, mid-teen percentage growth.

Shailesh Jaitly - Nomura Securities - Analyst

I understand. Can I just ask one final question, please?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Please.



Shailesh Jaitly - Nomura Securities - Analyst

Yes, 65-nanometer has been a big growth area. Also, if you could provide some color as to which are the main applications driving that growth in the third quarter; and what do you expect it to be going forward?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Computer applications, graphics, mobile phone applications, chipsets, set-top boxes, some of the wireless connectivity and the DTVs, these are all important applications, which have used our 65 and 55-nanometer technologies.

We expect this to continue, although some of the products will migrate into 40-nanometer some time early to mid next year.

Shailesh Jaitly - Nomura Securities - Analyst

Thanks a lot. That's very helpful, Rick.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Thank you.

Operator

Your next question comes from the line of Dan Heyler of Merrill Lynch. Please proceed.

Dan Heyler - Merrill Lynch - Analyst

Hi there, just a quick question on the pricing side, again. As you looked at the US dollar revenue being up 3%, and shipments in the third quarter being up 3.5%, implying some ASP erosion, and then, as I look at your 65, not only did it increase to about 25% of revenue from Q4, there was a big mix shift there, 90 was only down a couple of percentage points, Rick.

So we're seeing your, actually, advanced technology of 90 and below go from 36% to 41% based on the numbers I have here. So it looks as though there was a mix increase overall, and I'm wondering why the ASP isn't stronger.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

[I said] we are still 2008. We have firmed up our pricing since the beginning of the year. However, we also said early in the year that quite a bit of the pricing was determined in 2008 back in 2007, in the third quarter of 2007. So we are still -- we didn't say we have stopped the price decline in 2008. The price decline continued. However, the rate of which has slowed down quite a bit.

I believe our pricing, overall pricing, in third quarter met our expectations as far as the 2008 total pricing trend is concerned.

Dan Heyler - Merrill Lynch - Analyst

Okay. So the initiative was on 65 mainly, and that should play out in '09 then?



Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Yes, in '09, for the advanced technology, we have firmed up even further.

Dan Heyler - Merrill Lynch - Analyst

Okay, great. And my second question was, I guess, back to visiting the old inventory question, which has been one of much debate the last year or so, what is normal inventories and what is high and what is low.

Based on, now, the information that's occurred here in the third quarter, and you're seeing your customers now start to really want to ratchet down their inventories as you said, in your mind, how far do they need to go to be comfortable? Again, just directly your customers; I know the end markets are very hard to call right now. But as those companies are getting nervous about end demand, how low and how long do they need to reduce in their mind?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Well of course, our customers do not tell us what their inventory target is. I think in many cases they are probably still struggling with it. However, we look at, probably as you do too, the history during the last seven, eight years, especially after the 2001 downturn. We are seeing data for the days of inventory to go down to, say, about mid-50 days. I think that is one number we use as a reference.

Again, I'd like to stress that we do not a have firm idea as to what the customers are really driving down to.

Dan Heyler - Merrill Lynch - Analyst

Right. And as I look at that number, I'm wondering if the cycle times, perhaps being longer, is a percentage of overall mix -- whether or not that number would be higher at this point or lower. I don't know if you guys have thought about that in the historical context or not.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

I cannot say. I will say the generic cycle time, at least from a wafer manufacturing point of view, has come down. However, of course, as people move to higher, more advanced technologies, there're a lot more specs, also.

Dan, I do not have a rigorous analysis from that point of view, but we do feel that it will take the system companies and the semiconductor companies some time into the first quarter of next year to have their inventory days down to the level we just discussed.

Operator

Your next question comes from the line of Randy Abrams of Credit Suisse. Please proceed.

Randy Abrams - Credit Suisse - Analyst

Yes, hi. Good evening. I wanted to see on the gross margins could you talk a little more about the magnitude of gross margin decline in fourth quarter? Is some of that reduction due to lower wafer starts in fourth quarter ahead of first-quarter shipments, or is there also a pricing or mix change factoring into fourth-quarter gross margins?



Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

The fourth-quarter gross margin decrease is mainly due to the lower utilization for both in our eight-inch line and also in our 12-inch line. That is the main reason.

Randy Abrams - Credit Suisse - Analyst

Okay. Is there a bigger factor in terms of the fall in utilization between eight-inch and 12-inch?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Both capacity came -- both (inaudible) came down about the same magnitude.

Randy Abrams - Credit Suisse - Analyst

Okay. And then, I wanted to see if you can talk about the foundry company just in the perspective you've talked about microprocessors as an opportunity. Do you discount, now, your potential, or do you lessen that investment to still target that customer for microprocessors?

And then, how do you view competing against the venture as far as the graphics business?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Randy, as far as the competitor is concerned, you know our attitude has always been we take them very seriously, every one of them. And we also compete very seriously with every one of them. Other than that, we do not really comment on individual competitors.

As far as the AMD is concerned, of course microprocessors have always been manufactured in their internal fabs, or except for some foundry I guess a couple of years ago. I think, from our point of view, that that does not have much impact on us.

AMD, of course, also through their ATI acquisition, has a long and a strong relationship, foundry relationship, with us. We did have communication before the announcement, [as] both companies valued this relation very much and both companies will continue to foster this relation going forward.

Randy Abrams - Credit Suisse - Analyst

Okay, thank you.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Thank you.

Operator

Your next question comes from the line of Pranab Sarmah of Daiwa Securities.



Pranab Sarmah - Daiwa Securities - Analyst

Hi, this is Pranab from Daiwa.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Hello.

Pranab Sarmah - Daiwa Securities - Analyst

Hello. Yes, I'm just making sure, like, they picked up the right name.

Anyway, now I have two questions. The first one is one your CapEx point of view. You have indicated you might cut down CapEx about 20% for 2009. In that scenario, what type of capacity additions do you have in 2009?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

I think the 20%, as I talked about this afternoon, is what we are thinking at this moment, though 2009 is still highly uncertain. For that CapEx estimation for 2009, as you can think of, it will be mainly for 12-inch, especially for 40 and 45-nanometer ramp up.

Pranab Sarmah - Daiwa Securities - Analyst

Okay. And if I see, like, your macro outlook for 2009 basically talking about end demand or end product is negative growth, semiconductor industry or foundry industry will be even growing at a slower rate, and your capacity, even if you don't add anything, it will be up probably about 6% year-on-year. Do you really need to spend that much of money next year?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

The 40 and 45-nanometer in 2009 will be a big ramp year. So that particular -- no, we are going to see demand increase versus this year. That's why we need to add capacity for it.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

We're also investing in the R&D tools for the 22-nanometer technology demand. So that will occupy some of the CapEx.

Pranab Sarmah - Daiwa Securities - Analyst

Okay. And my second question is basically can you give us a little bit of color on your view about the industry consolidation? Do you think that, in this downturn, that the foundry industry could go to any sort of consolidation? And if it happens, what would be TSMC's response on that?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Pranab, I think it is really improper for us to comment on this point. So I would politely decline to do that.



Operator

Your next question comes from Bhavin Shah from JPMorgan. Please proceed.

Bhavin Shah - JPMorgan Chase - Analyst

Yes. Hi, Rick, Lora and Elizabeth. I have two questions.

But my first question is -- I just want to go back to the 2000 to 2002 time frame. Interestingly, your revenues sort of got back to 2000 levels by 2002, so just in the first year of recovery. So that was an amazing recovery on the revenue line.

However, your profits did not for three reasons. One was that depreciation was significantly higher, R&D was significantly higher and also the non-operating losses were significantly higher. Now we all know that depreciation will be significantly --- well, it most likely will decline in 2010, I would imagine, given the way you're guiding for CapEx.

But what do you think will happen to R&D expenses and non-operating losses? Just so that, if for some reasons, your revenues do bounce back in 2010, will the profits recover accordingly? That's my first question.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Good, Bhavin, let me comment on the R&D, and I will have Lora on the non-operating.

Lora Ho - *Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO* Okay.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

R&D, Bhavin, we will, as I said, strengthen our R&D investment. We have not really worked out the numbers yet, but our intention is to increase the R&D investment. I'm not saying we will increase that by a large jump. However, we are looking into investing, as I said, not only in 22-nanometer, 32-nanometer technology, but also in many of the specialty technologies that will help us gain market in the mainstream technology business area.

So I think from a percentage point of view, a percentage of the revenue point of view, it's definitely going to be higher than, say, 6% going forward for R&D.

Bhavin Shah - JPMorgan Chase - Analyst

Yes, in 2000 to 2002, it jumped from 4% to 7%, and currently you're running about 6%. So how much of a jump could we assume at, say, at similar revenue levels in a couple of years' time?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

I will say, again, you probably can assume a 1-point-plus type of increase, assuming a similar revenue or higher revenue. If it's a lower revenue, then the percentage will be higher.



Operator

Your next question comes from the line of Bill Lu of Morgan Stanley. Please proceed.

Bill Lu - Morgan Stanley - Analyst

Yes, hi there. Good evening, and thanks for taking the call. I've got two questions, one in the longer term, one a little shorter term. The first question is, as we go into 40-nanometers, I think expectations -- well the public comment has been the several of the IDMs are going to stop doing their own process development and outsource completely.

Given that we're going into a downturn in '09, does that change at all? With a little more capacity at the IDMs, do we need to be concerned about that, or is that still pretty firm? That's the first question.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Okay, these two questions, 40-nanometer and the downturn, are not connected too much. I think most customers who are designing in 40-nanometer or 45-nanometer technologies, of course, are designing new products that are going to come out in the 2009 and 2010 time frame. And these products usually represent their future revenues and profits. Very few companies, if at all, will stop or delay those projects.

As to IDM, again, just as you said, the IDM companies who are engaging with us on 40 or 45-nanometer technology, we expect them to continue moving forward just because of the points I just made.

Bill Lu - Morgan Stanley - Analyst

But even with the additional outsourcing from the IDMs, you will still think that the foundries grow a little bit less than the overall semis in '09?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Other than for the capacity that they owned internally, yes, I'd say that there is -- there will be impact. For instance in some cases, 90-nanometer or [01C] micro.

Bill Lu - Morgan Stanley - Analyst

Oh, I see. So (multiple speakers)

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

So 45 is not as sure.

Bill Lu - Morgan Stanley - Analyst

Okay, I understand. Second question is for Lora. Quite honestly, I've just been very bad at forecasting the margins. Hypothetically, if revenues were to decline by, say, another 10%, 15% from the fourth quarter levels, where do you think margins would go, gross margins?



Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

This is a complex question. Actually, depending on what drives the revenue it goes down. If the revenue goes down because of utilization, that being the single factor, and I can give you an easy rule of thumb. Based on our present financial performance, if utilization goes down by 1 percentage point, the impact to our margin will be roughly 0.3 to 0.4 percentage points, but it also depends on which technology drives down the margin. So that's the general rule of thumb.

Operator

Your next question comes from the line of Steven Pelayo of HSBC. Please proceed.

Steven Pelayo - HSBC - Analyst

Yes, if I could follow on a little bit on the margin question. It seems like the magnitude of the gross margin pressure in the fourth quarter is a little more than just utilization rates would imply, especially given Taiwan dollar depreciation on a quarter-over-quarter basis.

Is there anything more behind that, or can we at least rule out the depreciation component impacting? What's your expectation for depreciation and cost of goods sold for the fourth quarter, and then also for 2009?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Okay. Depreciation in fourth quarter will be slightly, only very slightly, higher than third quarter. Actually, the main reason drive the margin down in the fourth quarter is that -- the very big reason is the utilization itself. As I mentioned earlier, the utilization for the fourth quarter is going to be low for both 12-inch and eight-inch. That's actually the main reason.

Steven Pelayo - HSBC - Analyst

Okay. And then, one more quick question for you. Do you think your -- I'm impressed with your cash flow management this quarter. Do you think you can keep your DSOs and inventory turns around the current level, or what would be a good target for the fourth quarter? It seems to me if you keep them around the same level you're going to generate a significant amount of free cash flow next quarter on the low CapEx number again.

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

That's probably true. And we do not see any abnormal accounts receivable -- the inventory days and accounts receivable days so far. So being that as the main assumptions, and the cash flow will still be quite positive in fourth quarter.

Steven Pelayo - HSBC - Analyst

Okay. So DSOs can stay around 45 days or so, you think, next quarter?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Yes, right.



Steven Pelayo - HSBC - Analyst

Perfect. Thank you.

Operator

Your next question comes from the line of Mehdi Hosseini of FBR. Please proceed.

Mehdi Hosseini - FBR - Analyst

Yes, thank you. It's Mehdi Hosseini of FBR, a couple of questions. First, going back to your assessment of next year's semi decline, 5% to 10%, is that based on top-down analysis or your conversations with your customers? And could you please repeat your commentary on the PC end market?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

I think that it's a combination of the semiconductor companies, the outlook for the fourth quarter. I'm sure you also have seen that most of the companies are guiding much lower than seasonal fourth-quarter business.

That, of course, part of it is, which affected that not all the companies have announced their fourth-quarter guidance, part of which is our own estimate.

Mehdi Hosseini - FBR - Analyst

Okay, and a clarification on the PC, I'm just curious as to -- you're highlighting PC end market declining the most, if I heard correctly. Is that right?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Yes, PC market decline?

Mehdi Hosseini - FBR - Analyst

Yes.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

I'm sorry, can you --?

Mehdi Hosseini - FBR - Analyst

In your prepared remarks, you highlighted PC end market declining the most. Is that accurate, or did I hear you right?



Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

You mean for the fourth quarter?

Mehdi Hosseini - FBR - Analyst

Yes.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Yes, for our wafer demand, the PC market declined significantly, I think over 20%. And especially if you compare that rate, that decline rate, with the normal seasonal PC growth rate, which usually would be in the teens, low teens, this change is really very significant, being all in the fourth quarter [case].

Mehdi Hosseini - FBR - Analyst

Okay, and my second question has to do with your 45-nanometer capacity. I think we're all trying to better understand the required CapEx for next year in this kind of an environment, semiconductor industry revenue declining 5% to 10%. Is there any way you could provide us a color as to what mix of 45-nanometer could be? Is that, like, a single-digit as a percentage of revenue or double-digit?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO (inaudible).

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

It's probably too early to tell, but we do believe the 45-nanometer is going to ramp significantly in 2009. I cannot quantify that degree. I think it will be representing a very significant portion of our revenue.

Mehdi Hosseini - FBR - Analyst

Thank you.

Operator

Your next question comes from the line of Bhavin Shah of JPMorgan. Please proceed.

Bhavin Shah - JPMorgan Chase - Analyst

Oh, thank you, finally. Can we go through the previous question? I appreciate it.

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

This is Bhavin?



Bhavin Shah - JPMorgan Chase - Analyst

Yes.

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Okay. I think your first question referred to the non-op items. We want to compare 2001, last cycle, with this cycle.

Bhavin Shah - JPMorgan Chase - Analyst

Yes.

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

That was your question?

Bhavin Shah - JPMorgan Chase - Analyst

Yes, I think it --.

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Actually -- okay, I'm sorry.

Bhavin Shah - JPMorgan Chase - Analyst

No, I was just saying that in the 2001, 2002 time frame, the investment losses were pretty meaningful; and that prevented the earnings recovery of the same magnitude as the revenue recovery. That was one of the factors. So I'm just asking, yes, how will it play out this time?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Okay. I think if you compare 2001 cycle and who was categorized as saw investment losses, at that time it was the WaferTech, SSMC and Vanguard. But nowadays, I can tell you WaferTech and SSMC are doing much better than in 2001; and the same for Vanguard because they have successfully turned it into a foundry business, which is less cyclical.

So I would say, in general, this cycle the magnitude of changes in investment losses will be smaller than last cycle.

Bhavin Shah - JPMorgan Chase - Analyst

Okay. Thank you, Lora.

The second I had was on -- I think you, Rick, mentioned you estimated customer inventory days to be about in mid-50s. Was it at the end of '08 or it's some point in '09?



And actually, related to that is if you look at the guidance from some of the handset companies, they're still talking about some sort of growth in Q4, sequential growth, maybe, say, 10% or something, whereas you're seeing a pretty steep decline in Q4. So there's a big delta here between what those companies are thinking about the end markets versus what you're seeing. So I'm just wondering how you sort of see that.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Okay. Bhavin, it's really difficult to project. I do not believe the semiconductor companies can slash their days of inventory down to the 50s, whether it's mid or high 50s, in 2008. I do not believe that will be the case.

Fourth quarter, I know what you're talking about, but I think, for next year, we are -- I believe -- you are also projecting a fairly significant slowdown in the handset shipment in 2009, also.

Bhavin Shah - JPMorgan Chase - Analyst

Yeah, I guess my question was about Q4 in '08. If handsets don't (inaudible) about some sort of growth sequentially, and you're already seeing such a steep decline, it's either that -- how do you see that?

It's a bit of a contradiction, I would say, in the sense that, if the end market is still growing in Q4, which again, we can debate whether it's growing or not, how can you see such a steep decline? The only way it can be explained is customers are going to see very, very sharp decline in [new] inventory levels.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Actually, we did notice that, for instance, Nokia or Samsung are still projecting some growth in fourth quarter. On the other hand, if you look at Nokia's inventory number, I believe their third-quarter-end inventory days is higher, not only higher, but quite a bit higher than their inventory days at the end of the second quarter. So they do have build up on certain inventory, and they need to consume.

Bhavin Shah - JPMorgan Chase - Analyst

Right. So that mid-50s comment you made, was that sometime in 2009? Is that --?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Yes, we hope -- yes, first-quarter 2009, we hope the inventory level and the days will come down to a low-enough level.

Bhavin Shah - JPMorgan Chase - Analyst

Okay, thank you.

Operator

Your next question comes from the line of Dan Heyler of Merrill Lynch. Please proceed.



Dan Heyler - Merrill Lynch - Analyst

Yes, thanks. I just had a follow-up question on your comments regarding 200-millimeter expenditures. Rick, you'd made a comment in your initial statement that you would be looking at investments there and expanding. I think earlier in the year you guys had commented that you were less bullish on eight-inch. I'm just wondering what has changed there and what areas you plan to invest in to expand that business.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Well Dan, what I said was we will invest from the R&D point of view in the mainstream technology business. These are, for instance, the analog technology, mixed-signal, MEMS, et cetera, et cetera.

However, I did not say that we will invest in mainstream technology capacity. We do not plan to either. I hope I'm communicating clearly.

Dan Heyler - Merrill Lynch - Analyst

Yes. What I was wanting to know is, since those products are produced on eight-inch elsewhere, at competitors, and eight-inch is in abundance, what kind of margins would you expect in terms of getting into the eight-inch business, both mixed-signal, analog and MEMS? And how oversupplied that is, if you think the margins in that business will be good or not.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Well there is margin pressure, pricing pressure I would say, but the technology itself is not trivial at all. Actually much of those technologies now are in the hands of the IDM companies. As far as I can tell, these technologies are not available from foundry companies other than TSMC, in many cases.

That represents opportunity. We understand the pricing requirements. We are also working on our cost. So we work on both technology and the cost so that we can get more business in that area. We're not talking about the standard logic type of business here.

Dan Heyler - Merrill Lynch - Analyst

Okay. And we'd see some contribution in that towards these investments for next year. So is this something for 2010 or are we thinking more second half of '09?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

I think 2010 is probably more likely, although we are already -- I think we will be getting some business starting in 2009. But unfortunately, 2009 being such a challenging year, it will be more difficult to pan out.

Dan Heyler - Merrill Lynch - Analyst

Okay, thank you.



Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Sure.

Operator

Your next question comes from the line of Steven Pelayo of HSBC. Please proceed.

Steven Pelayo - HSBC - Analyst

Yes, Rick, I'm curious, with such a strong pullback in the fourth quarter, what are you thinking about first-quarter revenue? Does it need to be down significantly more than seasonal? What's the probability we can be setting up for another 20%-plus decline in the first quarter?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Steve, you know right now we do not comment on the first quarter, especially TSMC numbers. However, we have shared our view on 2009, overall, with you at this stage.

And we had a discussion earlier with Bhavin and other people on the inventory situation. I think I also said, in the afternoon, the inventory paring is now conducted aggressively by both semiconductor companies and systems companies, and this inventory paring will take some time, and I believe that will go into the first quarter of 2009.

Steven Pelayo - HSBC - Analyst

Okay, and then two final quick questions. I didn't get an answer on my earlier question on your expectations for 2009 depreciation.

And then, the last question is expectations for continued stock repurchases here, similar amounts like you did in third quarter, or what are your thoughts going forward?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Okay. On depreciation in 2009, although we have not finalized the CapEx, although we did indicate it will drop around 20% from this year, with that in mind, I think the depreciation for 2009 will increase only very slightly versus 2008.

Steven Pelayo - HSBC - Analyst

Okay, still increases, okay.

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Yes, but in very small increase, I would say 2% to 3% at most, okay? On share buyback, your second question --?

Steven Pelayo - HSBC - Analyst

Correct.



Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

And actually we learned from the market, and we feel, ourself, too, returning cash to the shareholder has two ways -- number one, pay out cash dividend; number two, doing buyback.

We have done buyback, and with a very good reason or major reasons to help it to settle down this year so they don't affect the share price too much. As to absorb the (inaudible) overhang, that was the main purpose for the past buyback.

With the current situations, and we want to go back to what we originally believed, which is the cash dividend is the most important than share buyback. So we will preserve the -- retain (inaudible) mostly for the cash dividend as our number one priority.

Steven Pelayo - HSBC - Analyst

Okay, fair enough. Thank you.

Operator

Your next question comes from the line of Pranab Sarmah of Daiwa Securities. Please proceed.

Pranab Sarmah - Daiwa Securities - Analyst

Lora, regarding on your payback point, I guess, you were also limited by the retained earning. Are you guys going to lobby with the Taiwan government to change some of those rules so that you can give all the excess cash back to the shareholder?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Pranab, I'm glad you mentioned that again because every quarter you talk to me like this.

Actually, it is true. The paying back cash to shareholder will be constrained by the capability of how much return on earnings we generated. We have been communicating with the [government of issue] on how to relax that. But so far, they have not been able to change their decision.

I think, as Rick just mentioned, 2009 we committed to pay TWD3.00, no problem. And 2010, depending on 2009's profitability, and still have time to work on that. The regulation environment may also change, but we don't know. We have no guarantee for that. But you have to trust me. We will continue to work on that.

Pranab Sarmah - Daiwa Securities - Analyst

Okay. And the next one, could I make a little bit of a comment about the customer rate cut, order rate? Because I think that was very severe sometime in the mid of second quarter. Are you seeing that similar rate of order cut, or you are seeing a little bit of stability at this point?



Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Well Pranab, I think the orders are still -- I should say have not stabilized. I think people are still paring their inventory. I think that until we and the customers, semiconductor companies, have a more clear view as to the holiday season sellthrough, then we'll have a more stable environment.

Pranab Sarmah - Daiwa Securities - Analyst

Talking on the inventory side, you have just mentioned a very nice point, like system and semiconductors guys are now pairing together to cut inventory. Do you foresee that trend will continue forward like systems semiconductor, even the semiconductor foundries like you, clearly has to pair together to cut down the inventory on the whole supply chain at some point?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Pranab, can you repeat your question again?

Pranab Sarmah - Daiwa Securities - Analyst

Actually, now, what is happening on the industry's semiconductor makers, as well as system makers, are pairing together to bring down their whole channel inventory. And going forward, do you see a possibility, along with them, like the foundry makers or other semiconductor makers, they also pair up -- like three levels will pair up to bring down the system channel inventory even at a lower level than where we are now.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Well Pranab, I believe the way this is going the inventory will go down to a quite low level sometime in the first quarter of next year. We are, of course, part of that.

Pranab Sarmah - Daiwa Securities - Analyst

Okay. Thank you very much.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Thank you.

Operator

Your next question comes from the line of Randy Abrams of Credit Suisse. Please proceed.

Randy Abrams - Credit Suisse - Analyst

Yes, I want to ask one more clarification question on the dividend. If your earnings were to fall, say, below the TWD3.00 in 2009, could you pay out more than 90% of prior-year earnings and, say, tap into the legal reserve, or would you prepared to do that to protect that dividend even the following year?



Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Yes, Randy, the answer to your question is yes. Retained earnings decide how much dividend you can pay out, and we can use the prior-year retained earning, too. So we may -- in some years, I would say 80% is the minimum. In some year, we certainly can go above that.

Randy Abrams - Credit Suisse - Analyst

Okay. And you previously have talked about a minimum one-quarter cash and CapEx that you want to keep. With the tightening credit environment and downturn, do you take that up in terms of a minimum cash that you want to maintain as a target level?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Are you asking the level of the cash to run the business, will that go up when the business goes into the downturn?

Randy Abrams - Credit Suisse - Analyst

Yes, exactly.

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

I think the answer should be opposite. When businesses become smaller, the level for operating cash will be smaller.

Randy Abrams - Credit Suisse - Analyst

Okay. So it's still about a quarter of cash and CapEx?

Lora Ho - Taiwan Semiconductor Manufacturing Company, Ltd. - VP, CFO

Right.

Randy Abrams - Credit Suisse - Analyst

Okay, and then one last question on -- just if you could talk a little bit more about the foundry versus the backend. We have SPEL and Amcor guiding a little bit more moderate decline. Maybe if you could talk about some of the difference that you're seeing foundry-wise versus the backend, or if you think it's just a timing issue or a wafer bank issue.

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Randy, I don't really have that much insight. The one that I can think of is the cycle time difference, the lead time. I think the lead time for the backend is substantially shorter, and so that's one thing I can observe. But I'm not sure I have better insight for you.

Randy Abrams - Credit Suisse - Analyst

Okay. Thank you.



Elizabeth Sun - Taiwan Semiconductor Manufacturing Company, Ltd. - Head, IR

Operator, in the interest of time, we will allow one last caller.

Operator

Our final question will come from the line of Bhavin Shah of JPMorgan. Please proceed.

Bhavin Shah - JPMorgan Chase - Analyst

Yes, I guess in terms of CapEx -- and one of my questions was on prices, actually. You earlier laid out the guidance for the price, your pricing strategy. And one of the -- there were multiple reasons why you had a particular price strategy in mind. And one of them was the cost pressure that you are facing in light of the inflationary environment.

Now clearly, we are in a very different environment, as far as inflation goes. Some of the cost pressures must have reversed for you. So how does that factor into your pricing strategy?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Bhavin, as I said earlier, we're committed to achieving our target structure profitability. And this profitability is comprised of both pricing and cost. We also stated several times before that we always aim to have a pricing decline rate somewhat lower than the cost decline rate.

So these are the two factors we look into and we make a tradeoff, we balance. And so if we have an improved cost structure, we will adjust ourselves from a business point of view. That's how we look at it.

Bhavin Shah - JPMorgan Chase - Analyst

Okay. Is it fair to say that the cost pressures -- you're going to see some benefit from the cost side, from the input costs, raw material and so on?

Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

I think it varies, Bhavin. It's not as straightforward. I wish they were, but, for instance, in Taiwan, utility costs have gone up, and it doesn't seem to come down even with the severe down of the oil price. But the utility is run by the state. There's not much we can do.

But on the other hand, there're some other input prices, as you said, coming down because of the booting up of the market. So again, for us, no matter what, we will work in any way we can to lower our costs so that we can have a much stronger competitive edge, also so that we can make our reasonable return of the investment.

Bhavin Shah - JPMorgan Chase - Analyst

Okay, thank you.



Rick Tsai - Taiwan Semiconductor Manufacturing Company, Ltd. - President, CEO

Thank you, Bhavin.

Elizabeth Sun - Taiwan Semiconductor Manufacturing Company, Ltd. - Head, IR

Well, this concludes our question and answer session. Operator, please proceed.

Operator

Before we conclude TSMC's Third-Quarter 2008 Results Webcast Conference Call today, please be advised that the replay of the conference call will only be accessible through TSMC's website at www.tsmc.com. Thank you all. You may now disconnect. Good day.

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