FINAL TRANSCRIPT

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CORPORATE PARTICIPANTS

Dr. Elizabeth Sun
TSMC - Head of IR

Lora Ho
TSMC - VP and CFO

Dr. Shang-Yi Chiang
TSMC - SVP and Head of R&D

Dr. Morris Chang
TSMC - Chairman and CEO

CONFERENCE CALL PARTICIPANTS

CJ Muse
Barclays Capital - Analyst

Randy Abrams
Credit Suisse - Analyst

Pranab Sumar
Daiwa Securities - Analyst

Dan Heyler
Bank of America/Merrill Lynch - Analyst

JJ Park
JPMorgan - Analyst

Mehdi Hosseini
FBR - Analyst

Dan Malcoln
Moore Capital - Analyst

Mike McConnell
Pacific Crest - Analyst

PRESENTATION

Operator

Welcome to TSMC's First Quarter 2010 Results Webcast Conference Call. 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.

I would now like to turn the conference over to Dr. Elizabeth Sun, TSMC's Head of Investor Relations.

Dr. Elizabeth Sun - *TSMC - Head of IR*

Thank you, Eric. Good morning, and good evening, everyone. Welcome to TSMC's first quarter 2010 conference call. Joining us on the call are Dr. Morris Chang, our Chairman and Chief Executive Officer, Dr. Shang-Yi Chiang, TSMC's Senior Vice President and Head of R&D, Miss Lora Ho, our Vice President and Chief Financial Officer.

The format for today's conference call will be as follows. First, Lora will summarize our operations in the first quarter and give you our guidance for the second quarter. Then, Dr. Shang-Yi Chiang will give you an overview of TSMC's technology. Afterwards,

TSMC's Chairman, Dr. Chang will provide his general remarks on the business outlook and a couple of key messages. Then, we will open the floor to questions.

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. I would like to remind all listeners that following discussions may contain forward-looking statements that are subject to significant risks and uncertainties, which could cause actual results to 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, 2010, 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 statement whether as a result of new information, future events or otherwise.

And now, I would like to turn the call over to Lora.

Lora Ho - *TSMC - VP and CFO*

Thank you, Elizabeth. Good morning, and good evening to everyone. Welcome to our first quarter earnings conference call. I will start today's presentation with the financial highlights of first quarter 2010 and follow by the guidance of our second quarter. Please refer to the quarterly financial summary slide on our website. All dollar figures in are NT dollars unless otherwise stated.

Contrary to our first quarter normal seasonality, the first quarter revenue and the wafer shipments slightly increased. The strength came mainly from the customer demand for communications and consumer related applications, as well as very strong demand for our 40nm technology.

Net sales of NT$92.2 billion increased 0.1% Q-over-Q and 133% year-over-year. Wafer shipments were 2.55 million 8-inch equivalent wafers, up 4.8%, sequentially, and up 185% compared with the same period last year.

Gross margin was 47.9%, representing a 0.6 percentage point decline from the first quarter -- from the last quarter, and a 29 percentage point increase from the first quarter '09 level. Operating margin of 37% was up 0.5 percentage point sequentially, and up 33.9 percentage points compared with 1Q '09. Earnings per share for the first quarter of 2010 reached NT$1.30. ROE was 26.3%.

On page five, let's now take a look at income statement. First quarter gross margin was 47.9%, down by 0.6 percentage point from 48.5% in fourth quarter '09. The increase in depreciation could have been more than offset by other manufacturing costs improvement. However, the effect from the March 4 earthquake resulted in additional costs from tool recovery and move losses which brought the gross margin by 0.9 percentage point.

The unfavorable exchange rate further reduced the gross margin by 0.4 percentage point. Under a scenario without these two items, our first quarter gross margin could have reached 49.5%, marking first quarter '10 the fourth consecutive quarter of margin improvement.

Operating expense decreased NT$990 million from the prior quarter, mainly due to lower legal fees after the settlement of big lawsuits. Non-operating income decreased by NT$430 million from 4Q '09, primarily due to the lower litigation compensations and wafer scrap loss resulting from the March 4th earthquake.

Net investment gain was NT$180 million, down NT$120 million from the prior quarter as SSMC's earnings was reduced by an inventory variation loss and the less government subsidized. Net margin was 36.5%, up one percentage point, sequentially, and up 32.6 percentage points year-over-year.

Now, let's turn to revenue analysis. The main in the first quarter was stronger than seasonality in all major segments. Consumer segment was the strongest with a 9% sequential growth. Communications and industrial segments both grew 2%, while computer segment declined 3% from the prior quarter. Overall, revenue from communications, computer, consumer and industrial applications accounted for 39%, 32%, 14% and 15% of our wafer sales in first quarter '10, respectively.

On page seven, by technology total wafer sales from 0.13 micron and below accounted for 71% of our total wafer sales, with a 71 percentage point increase from last quarter. Meanwhile, the combined revenue from 40nm and 65nm already accounted for 41% of our total wafer sales.

For 40nm alone, revenue grew strongly in the first quarter as a result of strong customer demand and continued yearly improvement. 40nm contribution jumped to 14% of our total wafer sales in the first quarter from 9% in fourth quarter '09. For 65nm, revenue contribution was 27%. Meanwhile, 90nm and 0.13 micron represented 17% and 13% of our total wafer sales, respectively.

Now, let's move on to balance sheets and cash flow statements. We ended the first quarter with NT$192 billion in cash and short-term investments, decreased by NT$4 billion from the last quarter, primarily due to the 20% equity investment in Motech of NT$6.2 billion. On the other hand, total current liabilities decreased NT$1 billion, primarily due to the change in timing of employee bonus payments. Accounts receivable days were 38 days. Inventory turnover days increased three days to 45 days. This is to support increasing demand in the second quarter. Net fixed asset turnover was 1.3 times.

On page nine, cash flow generated by operating activities reached NT$46 billion, representing a decrease of NT$16 billion from the last quarter, primarily due to the payment of employee bonus and the increase in accounts receivable. In investment activities, capital expenditure was NT$46 billion, meanwhile short-term and long-term investment increased for NT$6.4 billion, mainly due to the equity investment in Motech.

In sum, the ending cash balance was NT$160 billion, down NT$11 billion, sequentially. Free cash flow was an outflow of more than NT$100 million.

Let's turn to capacity in capital expenditures. Totaled installed capacity was about 2.57 million 8 inch equivalent wafers in the first quarter, representing a 1.3% increase from the last quarter. In the second quarter of '10, we expect the overall capacity to increase by 7%. 12 inch capacity will expand by 13% Q-over-Q, meanwhile 8 inch capacity will increase by 2% from the first quarter.

For full year 2010, overall capacity is expected to exceed 10 million 8 inch equivalent wafers, and will reach 11.25 million equivalent wafers. This translates into a 13% year-over-year growth for 2009. 12 inch capacity is expected to increase by 35% year-over-year, and accounts for half of our total capacity.

In terms of capital expenditure, we spent US$1.44 billion in the first quarter, increasing US$130 million from the last quarter. At the moment, we are aggressively expanding our 12 inch capacity. We expect the majority of 2010 CapEx to be front-end loaded; more than 60% will be spent in the first half.

I finished my presentation on first quarter financial highlights, now let me give you the guidance for the second quarter of 2010. Based on current business outlook and a forecasted exchange rate for 31.30, we expect our consolidated revenue in second quarter to come in between NT$100 billion and NT$102 billion. In terms of margins, we expect our second quarter gross margin to be between 48% and 50%, operating margin to be between 36.5% and 38.5%.

This concludes my remarks today. Now let me turn the call over to Dr. Shang-Yi Chiang, our Senior Vice President of R&D for his remarks.

Dr. Shang-Yi Chiang - *TSMC - SVP and Head of R&D*

Hello. Good morning, good afternoon, and good evening. I will spend the next 10 minutes giving you TSMC's technology overview. TSMC works on three technologies divided into three areas. Advanced CMOS technology follows kind of Moore's Law, and I will report to you for 28nm and beyond, including our vision for hardware Moore's Law extension and where it will may or may not end.

Then, I will touch on "More than Moore"; those are the areas where we added special features for particular applications. Examples are embedded memory, CMOS emitting sensors, mixed-signal RF, analog power management, MEMS, (inaudible). I will also report to you about TSMC's engagement in integrated level packaging and level 3D-IC stacking backend. Finally, Moore's Law may end by physics or may end by economics, so I will share with you the record cost controls which if we manage well then we can keep Moore's Law continuing longer.

The next viewgraph is TSMC's technology roadmap. On the left hand side those boxes are the ones already in mass production such as 65nm, 40nm. The orange boxes are for high performance with the blue box for low power.

As you can see, 40nm is already in production. You probably of TSMC's struggle with a year issue last year. Now, all these problems are behind us. We are doing very well. The defect end stage is good or better than previous technologies at this time -- the same time as to release the technology.

For example, the defect end stage reached 0.1, in some products even below 0.1 and we engage with more than 60 customers, and half of them are in mass production. 20nm -- those boxes on the right hand side -- the left hand side of this box means risk production state. The one of the very bottom is 28LP. We start production by the end of Q2, which is about two months from now, and this is a version, low power with oxide nitrate.

Other three versions, HP, [HPAR] and HPM are all with high-K metal gate. HPAR is for low power. HP is for high performance, where HPM is a combination of high performance and low power, this particular design for mobile interconnect Internet devices.

We also made a decision to skip 22nm, go directly to 20nm, and we plan to introduce 20nm at the end of Q3 2013. We put in a dash line in those boxes means the detail because they are more than two years from now. So, the exact date will be -- we will discuss with our customer before we finalize that date. The reason we skipped 22nm is because we have to detail study from technology point of view and from our customers' performance gain versus cost. This will give the best solution.

Let's go to the next. If we judge advanced technology, really there are three key measures. One is a transistor, one is a FinFET and the third is the interconnect.

TSMC's vision for the transistor roadmap; we see the current recoiled planar transistor can be expanded to (inaudible) about 18nm. So up to 20nm we will continue to use planar transistor. Starting from 14nm we will begin to -- we will shift to the so-called FinFET transistor structure; the three dimension structure.

Moving forward, slightly we will add more trend engineering and we will begin to use germanium or cadmium oxide as channel material to enhance mobility. From device physics point of view, FinFET transistor structures would allow us to carry to (inaudible) our 7nm to 8nm. So we still have about four generation to go based on the technology we know today, not including the possible innovations may come up in the next ten years.

So from physics point of view, especially from transistor, Moore's Law will be able to extend it to 7nm based on everything we already know today.

Then, let's look at the lithography. We had been using this 193 immersion lithography, in fact we will continue that for 20nm. We will look at as a possible opportunity if EUV, or multiple e-beam direct write become cost effective, we will switch because the mass production for 20nm will be begin in 2013. So, we still have a few years to go. Going forward to 40nm, we believe one of the EUV or multiple e-beam direct write will be the tool for litho.

And if we look at the interconnect, the measure for interconnect performance is resistance and capacitance. So everybody tried to improve their interconnect speed by reducing capacitance, this in so-called low-k material. TSMC pioneer is the first company to ship low-k product in the industry. We are also the first one to introduce second generation low-k material. And we are the first ones to begin to improve resistance -- we call low-r, in addition to low-k, as you see on the right hand side. Let's go to next.

Now, I will switch to More-than-Moore, give a few examples. We are engaging embedded DRAM and at this moment we are introducing 40nm embedded DRAM, both in the high speed version, G version, and low power version, LP version. Go to next.

Another example is the embedded flash. This application is a microcontroller. We are working on 90nm and going to 65nm right now. TSMC has already shipped more than 1 million wafers embedded flash and we are qualified for [very tight] with our biggest bet for automotive applications in this area. Go to next.

CMOS image sensors. We are working with customers on 1.19 micron pixel, and TSMC is the first one to introduce this thing called BSI technology, backside illumination. There are certain advantages is we shine light from the backside, and in this case we had to slim down the wafer to 3 microns thick. The handling, the technology, extremely difficult. We already shipped products using this BSI technology in 8 inch wafers and we are working on 12 inch wafers right now. Next.

For the power device, we show examples of this technology, give a breakdown voltage from 750 volts -- that's not, I'm sorry, 700 volts to 850 volts. And in this area, there are many, many different applications for 12 volts, for 16 volts and just require a different way of optimizing these devices.

The next one is the MEMS technology. TSMC takes a special approach. We make CMOS our one wafer, MEMS another wafer and package on the third wafer and then we bond them together, and this particular case allowed us to optimize all three of them independently and then, finally, we put them together. Next please.

On the package side I would just like to show you one example. We are -- we began to work on 2D and 3D integration. This looking forward, I think before -- especially after we -- after the Moore's Law began to slow down, we still need a solution for system integration, and as 2D, 3D integration use silicon as a substrate, allowed to make the entire system into a very small package with high performance and a low power. So we began to work on 3D stacking and a silicon interposer for 2D integration. Next, please.

My final viewgraph, TSMC in the past has been -- controlled the wafer cost from one generation to the next -- the build-out costs within 15%. And right now, with increases in the complexity of transistors, for example, we began to use high-k metal gate. And looking forward, likely we will use FinFET as a 3D structure. We see the pathway wafer costs increase will be very steep because of transistors and because of lithography.

For example, the -- if we use EUV we are look -- we are expecting a single set of EUV2 of a cost of US$100 million. So TSMC will work harder with our wafer supplier to find solutions, control the costs and allow the Moore's Law to continue longer. Thank you very much.

Dr. Elizabeth Sun - *TSMC - Head of IR*

Now, our call will be turned to our Chairman and CEO, Dr. Morris Chang, for his general comments.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Hello, ladies and gentlemen. I will make a few comments on various topics that are of interest to you, and then we will be open for questions. First, on business outlook, as the CFO has indicated in her report of the first quarter and in her guidance for the second quarter at TSMC is very good -- very brisk in the past quarter and now. As far as the overall electronic equipment market is concerned, we see that the PC market will probably be up 17% this year. That is an upward revision of our forecast from last quarter of 14%.

Handsets will be up 13% this year. That is also an upward revision. Digital consumer electronics will be up 7% from last year, and that forecast is unchanged from our last forecast. Semiconductor market -- world semiconductor market will be up 22% from last year. That is an upward revision from the 18% growth that we had forecast last time. Foundry market, we forecast, will be up 36% this year.

Now, the next topic I am going to discuss is the supply chain inventory. We have complete data only for the end of fourth quarter, and our data indicated that as of the end of fourth quarter, inventory was below normal seasonal levels. Also, DOI, days of inventory, was below seasonal level by about ten days at the end of the fourth quarter. First quarter data are very sketchy. We only have about 15% to 20% of first quarter inventory data and it is premature to draw any conclusions from those sketchy data.

My next topic is our capacity expansion. Our capacity expansion is very much in progress. As the CFO has pointed out, our capital spending in the first quarter is as planned. In terms of the physical progress I would say that we are expanding, we are adding phase five to Fab 12 which is in Hsinchu. And we are adding phase four to Fab 14, which is in Tainan.

Both Fab 12 and Fab 14 are 12 inch GigaFabs. Each of those is expected to produce 100,000 12 inch wafers per month, and each of those if very close to that mark already. In addition to those Fabs, we are also going to break ground on a new GigaFab, Fab 15. It will be in Taichung. Taichung is about half an hour, a bullet train away from Hsinchu and you can drive there in about one hour or so.

In Taichung we will be adding -- we will be breaking ground for another GigaFab, and in that new GigaFab we will first start with 40nm production and then we will expand our 28nm production in that new Fab too and then, of course, later on we will be doing 20nm production, and so on.

My next topic is our structural profitability. By structural profitability, I mean profitability independent of utilization. In the P&Ls that you have been looking at every quarter, the level of utilization has always masked the structural profitability because when utilization is very high, as it is now, the gross margin percentage would be quite high. And when the utilization was slow, as it was a year ago, the gross margin percentage will be very low.

Now, of course, the management team looks at a probability independent of utilization. Now, I am happy to report that our structural profitability has improved in the last couple of years; year '09 and this year. It has improved by a couple percentage points. Now, this is a major direction of ours to improve structural profitability and we are devoting a lot of energy and investment to do it.

The next topic I will comment on is IBM outsourcing; that is, outsourcing from customers that have their own Fabs or used to have their own Fabs. Now, 2009 was very bad for IBM outsourcing because our revenue from IBMs in 2009 declined 42% from 2008. That was because in a bad year like 2009, the IBMs took in the sourcing; they did not outsource as much. This year, IBM outsourcing has bounced back and we are, of course, a very major beneficiary of that.

As far as the long-term trend is concerned, there is no question that IBMs has been increasing their outsourcing. From 2003 to 2008, the five-period, TSMC revenue from IBMs grew 15.7% per year compounded annually. This was faster growth than our revenue from the Fabless customers. So the long-term trend is very healthy, the IBMs increasing their outsourcing and we are a major beneficiary. Last year, it dropped for us 42% and this year it is bouncing back.

Last topic I am going to comment on is our business in China. We began our business in China earnestly in '04. Since then, our business from Mainland China has grown at a compounded average growth rate of 63% per year. Last year, our business from China, that is, orders placed by customers that are based in China, has exceeded our revenue from customers in Japan. That was something we hardly expected a few years ago.

Actually, even bigger things were happening in Europe. Our business from Europe used to be about the same as our business in Japan, but the business from Europe overtook the business from Japan several years ago. And now, the business from China has overtaken the business from Japan. Also, I want to say just a few words about our manufacturing operation in China. We have had an 8 inch Fab in Shanghai since '04 and we have been increasing the capacity of that Fab also. It will be 50,000 8 inch wafers per month by the end of this year.

Those are all the comments I have at this point. We are open for questions.

Dr. Elizabeth Sun - *TSMC - Head of IR*

This concludes our prepared statements. Operator, please open the floor to questions.

QUESTIONS AND ANSWERS

Operator

At this time we will open the floor for questions.

(Operator Instructions)

Your first question comes from the line of CJ Muse with Barclays Capital. Please, proceed.

CJ Muse - *Barclays Capital - Analyst*

Good evening. Thank you for taking my questions. First question, with Fab 15 breaking ground in 2010, is there any change for your CapEx budget for full year 2010? And I guess as part of this question, when will you start equipping Fab 15?

Lora Ho - *TSMC - VP and CFO*

The Fab 15 we will start groundbreaking in the middle of this year, but we do not expect there will be a huge investment coming -- capital expenditure coming from that Fab yet. It is going to take more than one year for the Fab construction going forward. For the time being, we do not have a plan to change our CapEx guidance for 2010.

CJ Muse - *Barclays Capital - Analyst*

Okay. And as a quick follow-up, considering the increased competitive landscape for the foundry industry and as you talked about on the call earlier, increasing complexity at the next nodes and the strong demand you are seeing for 40nm and your

work on 28nm including Fab 15, and I know it's early, but what does this suggest for your CapEx spending in 2011? Does this mean capital intensity hovers above 40% well into 2011?

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, capital intensity, of course, is capital spending divided by that year's revenue. And that number, that percentage may indeed go up for a couple years because we have shifted to a higher growth path, I believe. And in -- while the capital intensity increases I think that we will have growth -- higher growth to also show our investors.

CJ Muse - *Barclays Capital - Analyst*

That's helpful. If I could just follow-up real quickly, in terms of that higher capital intensity, how much of that would you ascribe your views of taking share in the foundry space versus the increased capital intensity at the next nodes, given some of the new technologies?

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, I really have not stopped to look at that. Just as a first answer to your question, I would say that the increase because of the higher node is expected to be compensated for by price. And so, the first answer to your question is that I believe that most of it -- most of the increase in capital intensity will -- is attributed to the growth that we are expecting.

CJ Muse - *Barclays Capital - Analyst*

Very helpful. Thank you.

Operator

Next question comes from the line of Randy Abrams with Credit Suisse. Please, proceed.

Randy Abrams - *Credit Suisse - Analyst*

Yes. Hi, good evening. On 28nm with the higher technical complexity, could you talk about early stage how you are sort of looking, and also process maturity? And, how are you seeing customer uptick relative to similar timeframe early in the 40nm transition?

Dr. Shang-Yi Chiang - *TSMC - SVP and Head of R&D*

Yes. This is Shang-Yi Chiang. I -- indeed high-k metal gate is considered pretty challenging for technology development, and at this moment, we are proceeding according to schedule. And we have -- let me think. We have engaged more than 20 customers at this moment and we expect about a half dozen customer product tape-out before the end of this year.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Let me add. This is Morris Chang now. What Shang-Yi says is that we have engaged some 20 customers. By engaging -- we are working with them in the pre tape-out phase. They haven't given us the tapes yet, but we have started to work with them

already. And that is the way things should be done in this business. That is a pretty long collaborative period before tape-outs are given, and we are in that phase right now.

Tape-outs will not be available until about -- well, for the first technology which is the low power technology. Right? Tape-outs, even for that first technology of 28nm, tape-outs will not be available until the end of this year. Right? So it is a bit -- we are still very much in the developmental stage, so -- and we do have -- in the development stage we do have our defect goals. And -- but it is premature to discuss yields. Well, actually, our goals are to be very economical to the customer such that he will buy them, and also very profitable to us.

Randy Abrams - *Credit Suisse - Analyst*

Okay. Thank you for that. And a follow-up question with two approaches, the gate first versus gate last, will that make it more difficult for, say, an IBM alliance member if it is like an STMicro or Freescale, the designs on an IBM process, to move into TSMC, and maybe at the same time some of the customers you work with on 28, does it make it tougher for a TSMC-like process or for them to go to a second source for the design? So, maybe talk about the challenge on 28, if it is changing any versus history?

Dr. Shang-Yi Chiang - *TSMC - SVP and Head of R&D*

The quick answer is yes. So, this is the first time in many years that we see the industry diversified to such a large degree. Previously, like 90nm, 65nm pulled the design from one foundry to the other. It is not as difficult as it for 28nm, and we do experience that.

Randy Abrams - *Credit Suisse - Analyst*

Okay, thanks a lot.

Dr. Shang-Yi Chiang - *TSMC - SVP and Head of R&D*

You're welcome.

Operator

Your next question comes from the line of Pranab Sumar with Daiwa Securities. Please, proceed.

Pranab Sumar - *Daiwa Securities - Analyst*

Hi. Good afternoon. This is Pranab from Daiwa. I have -- first question is basically on your wafer costing chart. Thanks for giving those charts. You have indicated 28nm versus 14nm cost will increase quite significantly compared to, say, 45nm versus 65nm or 65nm versus 90nm, which is quite stable.

How much ASP can you command on 28nm so can -- so that you can at least maintain decent margins out there? Basically, that would be my first question because the cost is increasing quite rapidly there -- 28nm.

Dr. Shang-Yi Chiang - *TSMC - SVP and Head of R&D*

This is Shang-Yi Chiang again. To answer your question, we -- that curve I draw is didn't -- is more trying to make the point. Those -- please don't take the number, quantitative number seriously. We tried to deliver the message -- we began to go to

28nm because of the high-l metal gate. The transistor -- the cost for making the transistor did go up quite a bit. And we look forward, we see going to 20nm and below the transistor continued to be very complex.

In addition to high-k metal gate, we also built in a lot of what we call trend engineering. Every one of them costs additional, an additional wafer cost. And we will also be very much alert that the lithography cost will be very high.

We go to 28nm, we will start with still the same 193 immersion lithography, but we added a lot of special features into this lithography technology. The -- from the high school physics we know when we try to make an image with an image dimension smaller than a wavelength we begin to see interference patterns and this image will not be clear.

Now we are looking at we use 193nm light as wavelengths -- 193nm. We try to print 20nm. It is only one tenth of the wavelength with the pattern, so that takes a lot of work to make it happen. And all those are add-on costs, even before we use EUV or multiple e-beam. That is why we draw that curve just to highlight the change in transistor and the trend for the very high cost of lithography. That is -- we still be -- we still are able to handle 28nm to maintain the cost to be cost effective for customers to migrate to 28nm.

And to go beyond that, we will try very hard and we believe we can do that. It really hasn't happened yet.

Lora Ho - *TSMC - VP and CFO*

Pranab, if I can make some comment on this. You are asking about the cost and price on 28nm.

Pranab Sumar - *Daiwa Securities - Analyst*

Exactly.

Lora Ho - *TSMC - VP and CFO*

We do have an internal goal for 28nm cost. It is a parity to our 40nm. We are working hard to achieve that goal. In the same time, we believe the value we will bring the customer in 28nm on the pricing side, we should be able to get a reasonable price so that the SGM for 28nm will not be lower than the prior note.

Pranab Sumar - *Daiwa Securities - Analyst*

Okay. Thank you, Lora, for clarification. And my second question is on SMIC, assuming like you get approval to get that 8% SMIC stake, would you consider SMIC to be your competitor, and alliance after that?

Dr. Morris Chang - *TSMC - Chairman and CEO*

Right now they are a competitor, even though we own 8% -- we will own 8% of SMIC. But that was a result of the settlement of the suit that we had with SMIC. And we declared when we received it that we would not participate in any aspect of the management of SMIC, we will not represented on the Board. We will not participate in the management, and we will not cooperate with SMIC. So, they are a competitor.

Pranab Sumar - *Daiwa Securities - Analyst*

That means would likely to sell that 8% stake on the market because there is no point of holding competitor shares?

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, yes. Yes, we will consider that, but I believe there is a lock-up period. But, certainly, yes we will consider that.

Pranab Sumar - *Daiwa Securities - Analyst*

Okay. Can I ask one more -- ?

Dr. Morris Chang - *TSMC - Chairman and CEO*

Yes, actually -- yes, yes, well, okay.

Pranab Sumar - *Daiwa Securities - Analyst*

Can I ask one more question because my two questions is over?

Dr. Elizabeth Sun - *TSMC - Head of IR*

Pranab, can you go back to the queue? Thank you.

Pranab Sumar - *Daiwa Securities - Analyst*

Okay. Thank you.

Operator

Your next question comes from the line of Dan Heyler with Bank of America/Merrill Lynch. Please, proceed.

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

Hi there. Good evening. I had a couple of follow-ups from this afternoon. So the 28nm comments -- and my understanding is the tape-outs were expected to be later this year. Based on the comments that were last quarter, the comments were that 28nm would be taping-out in the middle of this year, so I am wondering what has changed since then.

Is it is more the challenges in cost? Is it customer reception? Is it that you quite busy right now, or if you could just elaborate a little bit on the change there?

Dr. Shang-Yi Chiang - *TSMC - SVP and Head of R&D*

Dan, this is Shang-Yi. Yes.

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

Yes, hi there.

Dr. Shang-Yi Chiang - *TSMC - SVP and Head of R&D*

Indeed, we had major customers -- they had their tape-out delayed for one quarter from third quarter to fourth quarter. And it happened to more than one customer. And it is not part of the -- TMSC was not involved in this decision and cost, so we cannot comment on what caused that.

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

Thank you. That's great. And then, my second question was on the More than Moore strategy that you have had in place for a number of years. There, you are quite busy in a number of fronts, and I am wondering what the capacity situation is on 8 inch. The industry seems very tight right now on 8 inch.

There is, in fact, report -- increasingly reports of shortages on 8 inch. So it you could elaborate whether you think that is merely cyclical or whether or not we do need to see -- become more aggressive in adding more 8 inch, and if so, how you would go about doing that, whether it would acquisitions or internal? Thank you.

Lora Ho - *TSMC - VP and CFO*

Dan, our every -- More than Moore, actually, gradually to see some results. So, right now, our 8 inch is quite full as she is very close to 100% utilization. So we are doing the debottlenecking to incremental add up of equipment and we also want to expand our Fab 10 in Shanghai for some of the More than Moore technologies. So to -- the simple answer to your question on 8 inch is, yes, we are adding some capacity for 8 inch.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, I should add -- this is Morris Chang. I should add that one of the reasons that the 8 inch Fabs are so full now is that -- is because of More than Moore. We have been pursing More than Moore for three years and the results have continued to come out.

The results are the applications, the specialized technologies that are adapted to the More than Moore applications. And they have started to bring benefits. And that is one of the reasons that the 8" Fabs are more than full right now.

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

Thanks, and one follow-up, if I may, on that. Dr. Chang, thank you. What would you think kind of a longer term growth of that 8 inch More than Moore would be? Would it be, obviously, below -- I would imagine below the overall average for your business, but are we talking a good 5% growth business? Are we talking a high single digit growth type of business? Any thoughts there?

Lora Ho - *TSMC - VP and CFO*

I think t is very difficult to quantify on the longer trend what is the growth rate on the 8 inch. But I -- we have seen one phenomenon that our 8 inch CMOS logic gradually migrated to 12 inch. And the logic part actually will see some decline. But on the other hand, the More than Moore part will increase quite significantly. So I can say almost the -- if you add up all the 8 inch we believe we are going to see the long-term growth for 8 inch business.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, I should add that -- this Morris Chang. I should add that, actually, one of the original, or maybe the original objective of the More than Moore effort was to keep the 8 inch's Fab full for a long time. So, well, at least up to now that has happened.

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

Great. Thank you.

Operator

Your next question comes from the line of JJ Park with JPMorgan. Please, proceed.

JJ Park - *JPMorgan - Analyst*

Thanks for taking my question. My first question is about the gross margin guidance. You mentioned that the more large gross margin in the Q1 was 49.5%, but given almost 10%, say, to gross, second quarter gross margin seems to be a little bit (inaudible). Is it due to the potential -- the FX rate or is there any other one-time cost in the second quarter?

Lora Ho - *TSMC - VP and CFO*

There are two reasons on -- I would like to add two comments on the -- on our Q2 margin guidance. We are adding capacity aggressively on Q2. We have said 12 inch capacity will go up by 13% in second quarter and combined capacity will go up by 7% Q-over-Q. That is one thing. So, we expect the depreciation will go up.

On the other hand, the NT continued to appreciate. We guided 31.3 as the exchange rate we use for second quarter guidance. This is a 2% appreciation versus the first quarter, and that has some impact on margins as well.

JJ Park - *JPMorgan - Analyst*

Okay, thank you. My second question, regarding the new business, I know it is premature, but as further note just as going for the additive for the general lighting, I am just wondering what TSMC's shift trend EBITDA if you move into the LED, compared to the UV existing players.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Yes --. The LED strategy, is that what you asked?

JJ Park - *JPMorgan - Analyst*

Yes.

Dr. Morris Chang - *TSMC - Chairman and CEO*

The LED strategy, basically, we plan to make a good return. We plan to make our LED business a very profitable one and the main differentiation that we are seeking will be through technology. And that is why the very first thing that we are doing is to

start LED development ourselves -- technology development. And we plan to get into that business with innovations -- innovations in technology.

JJ Park - *JPMorgan - Analyst*

Okay. So it is most focusing on the technology development rather than the chip production?

Dr. Morris Chang - *TSMC - Chairman and CEO*

You said technology versus chip production? No.

JJ Park - *JPMorgan - Analyst*

Yes.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, chip production is not what we are seeking. That is not our strategy, yes.

JJ Park - *JPMorgan - Analyst*

Okay, got it. Thanks very much.

Operator

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

Mehdi Hosseini - *FBR - Analyst*

Yes. Thanks for taking my question -- a couple of follow-ups. If I just take a look at your capacity addition in the Q3 and Q4, it suggests to me that the revenues are going to follow the capacity addition, given the fact that you are already at 100% utilization rate. Is that how we should think about the yearend guidance?

Mr. Chang, early on, was talking about 36% foundry revenue growth and TSMC exceeding that, so I am just -- I am looking at utilization rate and it seems to me that second half revenues are going to just follow the capacity increases. Is that the right way of thinking?

Dr. Morris Chang - *TSMC - Chairman and CEO*

Oh, I didn't say that TSMC would exceed. It did not say it. But, of course, we are not unambitious people and we certainly want to perform better than the industry as a whole. Now, basically, I think that you are correct, yes. We are currently limited by capacity and, therefore, revenue growth will have to follow capacity growth. So, basically, I think, that is a right -- a correct statement.

Mehdi Hosseini - *FBR - Analyst*

Sure. And just one follow-up regarding your prepared remarks, I understand that not all the data is available to assess the inventory situation following the Q1 report. But based on your own experience over the past several decades and what you have seen so far out of the reports for Q1, where do you think we are in the cycle?

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, past experience really tells me very little. Past experience just tells you that the future is always unpredictable. I really can't comment further than that, yes.

Mehdi Hosseini - *FBR - Analyst*

But did -- have you seen anything so far in the Q1 report by your customers that would concern you as it relates to too much inventory?

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, the limited -- the very limited sample that we have seen, as I said, it is about 15% to 20% of what we will get one or two months from now. One or two months from now we will get the complete data about the end of first quarter, as we have already gotten the complete data on the fourth quarter. So deliver to assemble we have -- it is really premature to draw any conclusions.

Mehdi Hosseini - *FBR - Analyst*

Okay, thank you.

Operator

Your next question comes from the line of [Dan Malcoln] with Moore Capital. Please proceed.

Dan Malcoln - *Moore Capital - Analyst*

Yes. I was just wondering in the guidance for second quarter, can you just talk about what some of the puts and takes are there in terms of strengths driving the sequential growth, and any weakness maybe, if there is any?

Lora Ho - *TSMC - VP and CFO*

Second quarter we expect that communication, consumer, industrial will all go up. On the communication front, within cellular we believe, our major segment, will increase. Within networking, growth will be driven by wireless LANs and network processors. On the consumer part, growth will be drive by DTV and video game players, other -- not other segments. On the industrial part, all segments will increase except PLD.

Dan Malcoln - *Moore Capital - Analyst*

So, PLD will be not up in industrial in the second quarter?

Lora Ho - *TSMC - VP and CFO*

That is what we are seeing now.

Dan Malcoln - *Moore Capital - Analyst*

Okay. And then, in the first quarter, the 9% growth in consumer, what was driving that? Was that primarily Driver IC? Is that -- and is that not typical to see that kind of consumer strength in the first quarter for your guys?

Lora Ho - *TSMC - VP and CFO*

Okay, let's see. You are asking about first quarter in consumer?

Dan Malcoln - *Moore Capital - Analyst*

Yes.

Lora Ho - *TSMC - VP and CFO*

Actually, in the first quarter all major segments increased within consumer with the only exception of setup boxes.

Dan Malcoln - *Moore Capital - Analyst*

Okay, so everything drove that 9% growth. And is that typical, that growth? Do you think that was -- I wouldn't except consumer to be up, but maybe I am thinking about that wrong, seasonally, in the first quarter.

Lora Ho - *TSMC - VP and CFO*

Actually, the first quarter is better than seasonality. Usually consumer will go down first quarter.

Dan Malcoln - *Moore Capital - Analyst*

Okay, so it was better than normal seasonal. Okay, thanks so much.

Operator

Your next question comes from the line of Mike McConnell with Pacific Crest Securities. Please, proceed.

Mike McConnell - *Pacific Crest - Analyst*

Thank you. Dr. Chang, I was just curious with the comments that second half of the year will be softer than the first half of the year. What are the reasons for that? Is it just purely math? I was just curious as to that comment.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Are you referring to the comments that I made this afternoon?

Mike McConnell - *Pacific Crest - Analyst*

Yes.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, they were misunderstood. I did not say that the second half would be softer than the first half. I merely said that the second half variations in the semiconductor market -- remember, I am talking about the semi -- the total, world semiconductor market, now. The second half -- in the second half they will be -- they will not follow the usual, the average seasonal variations.

In other words, seasonally, the third quarter is usually the strongest quarter. Well, actually, the -- no, I take that back too. It is not the strongest quarter. It is very strong. Seasonally, the third quarter for the semiconductor market is a lot stronger than the second quarter by about seven to ten percentage points, 7% to 10% growth from the second quarter.

But this year the third quarter of the semiconductor market may not grow as strongly as 7% to 10%. And, by the same token, seasonally, the fourth quarter is about 3% stronger than the third quarter. Again, I am talking about the semiconductor market. And this year, the fourth quarter may not grow 3%. So, that is all I said. But since the first quarter is already so strong and even if, -- again, I am talking about the semiconductor market.

The first quarter is already so strong. Now, if the second quarter is a bit weaker than seasonal, and the third quarter and fourth quarter are all a bit weaker than seasonal, they will still be -- the second half, will still be bigger than the first half. So, that is all I said.

I really think all this I didn't have to say -- I shouldn't have said, really, because it was misunderstood, not just by you, but some other people also. So, when I realized that it was already too late. I should have unsaid it.

Mike McConnell - *Pacific Crest - Analyst*

Well, thank you for the clarification. And kind of what are your thoughts then for next year too with relationship to the strength we are seeing this year?

Dr. Morris Chang - *TSMC - Chairman and CEO*

We think that next year will be a good year and I forecasted a quarter ago that next year semiconductor market will see a growth of 7% over this year. And this year is a tremendous year, 32% we are forecasting now. And next year, we are forecasting 7% over this year.

Mike McConnell - *Pacific Crest - Analyst*

Thank you.

Dr. Elizabeth Sun - *TSMC - Head of IR*

Operator, in the interest of time we will just allow two more callers. Thank you.

Operator

Your next question comes from the line of Dan Heyler with Bank of America/Merrill Lynch. Please, proceed.

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

Well, thanks. I was just going to ask you guys for an update on the 40nm margins. Your previous expectation was that that would be back to the corporate average by the fourth quarter, and whether or not we are still on track for that or doing better than that. Thanks.

Lora Ho - *TSMC - VP and CFO*

Actually, Dan, there were people asking this afternoon and my answer to that, yes, we believe the fourth quarter 40nm margin will be close to the [headquarter] level.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, the corporate average actually has gone up a little, yes, so it is a kind of a moving target and so, yes. But the answer to your question that -- this is Dr. Chang, is that awhile ago that the yields of the 40nm are as good as, or even better than the yields of 65nm or 90nm at the same stage of maturity.

And so, as far as I see, really, the 40nm problems which were pretty high on our priority list last July - I believe it was last July when I talked to you, they have -- they started to diminish as I thought they would. I remember that in July of last year I even got Mark Liu to speak to you. And at that time, he was forecasting a gradual improvement of the 40nm [U] situation. And, sure enough, he was -- his results were as good as his words. And they started to improve perhaps even more rapidly than he promised.

And so, at this point, I would say that they are not there anymore. Now, but your question was on gross margin, and I did say that by the end of this year it would be at the corporate average.

Now, keep in mind that we expect the 40nm to be fully loaded all the way. Now, when I said that the 40nm gross margin would be like the corporate average, I was sure that 40nm would be fully loaded at the end of this year, but I wasn't sure that the whole corporation would be fully loaded. Now, I am more sure the full -- the whole corporation will be fully loaded at the end of fourth quarter, and therefore, the target has moved up a little bit. Is this Dan that is asking the question?

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

Yes, hi.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Do you follow what I said?

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

Absolutely, that is clear. Thank you. And then, a quick follow-up with -- was we haven't heard much on the embedded CPU initiative which has been multifaceted, has been some working with Intel in the past in this area and some work on your own and AMD and others.

But I was just, specifically, was wondering when we would start to see present in the PC-related space with either embedded or MIB market. Because it has been a growth opportunity for you a number of years that you have been targeting. I am wondering if we are getting to a point where we may start to see greater penetration into the PC space for you i.e. the embedded processor space.

Dr. Shang-Yi Chiang - *TSMC - SVP and Head of R&D*

Dan, this is Shang-Yi.

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

Hey.

Dr. Shang-Yi Chiang - *TSMC - SVP and Head of R&D*

We -- I assume you talk about, for example, like embedded ARM core into some smartphone or smartbook application, am I right?

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

Well, we have seen already. I am wondering in the PC space, i.e. ARM-based PCs, what extent you are seeing success there in the processor space? Snapdragon is one the devices, for instance, out of Qualcomm.

Dr. Shang-Yi Chiang - *TSMC - SVP and Head of R&D*

We do expect that will be a growing market and, indeed, our 28HPM was designed to target that market, and that was customer-driven. So we designed that 28HPM by specific customers targeted for that market.

And, at this stage, what we actually saw was that there were quite a few of our customers, probably around at least four or five of them who were very interested in this technology. And we haven't been able to see the forecast volume at this moment. And I personally think that this emerging market, how fast it will pick up, is hard to us to predict.

Dan Heyler - *Bank of America/Merrill Lynch - Analyst*

That's great. Thank you, everyone.

Operator

Your next question comes from the line of Pranab Sumar with Daiwa Securities. Please, proceed.

Pranab Sumar - *Daiwa Securities - Analyst*

Yes. Thank you for taking my question. Lora, my sense on the first quarter, non-wafer revenue there was a drop to about 10% of total revenue on the Q1?

Lora Ho - *TSMC - VP and CFO*

No, really, non-wafer revenue account for like 10% to 12% of our total revenue. That first quarter is in that level.

Pranab Sumar - *Daiwa Securities - Analyst*

In that level. That means the ASP drop was quite significant on the first quarter -- blended ASP?

Lora Ho - *TSMC - VP and CFO*

Well, the first quarter usually we have annual pricing negotiations with the customers. It is not something new for us. Every first quarter we will see a little bit more price decline versus other quarters.

Pranab Sumar - *Daiwa Securities - Analyst*

Okay. My next question is on the dividend payout ratio. If your are capital intensity declines a bit in 2011, would you consider paying more than 100% dividend payouts for next year?

Lora Ho - *TSMC - VP and CFO*

Pranab, I would like to repeat our dividend policy. We are very serious about our stable dividend payout and we have been paying NT$3 for the four years. And if the long-term growth and profitability goes up, we will increase the dividend, but I cannot give you a promise, not any single year we will payout more than 100%.

Pranab Sumar - *Daiwa Securities - Analyst*

Just now, Mr. Chang you have said like your capacity to be fully loaded until 4Q, that implies like your revenue growth over the next few quarters will be quite similar to what is your capacity growth.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Say it again. Our revenue growth will be what?

Pranab Sumar - *Daiwa Securities - Analyst*

Would be quite similar to your capacity growth because you said that your Fab 12 will be almost fully loaded for the whole this year.

Dr. Morris Chang - *TSMC - Chairman and CEO*

Well, as a first principle -- as I said earlier, as a first principle that is correct, but now you have to look at the details of capacity growth and we, certainly -- we are growing the advanced capacities faster than the mature capacities. And the advanced wafers carry a higher price and all that sort of things, yes. But as a principle -- as a first principle, what you said is correct, and what I said earlier was correct also, as a first principle, yes.

Pranab Sumar - *Daiwa Securities - Analyst*

Okay. Thank you for clarification.

Dr. Elizabeth Sun - *TSMC - Head of IR*

This concludes our Q&A session. Thank you for joining us this morning. We hope you will join us again next quarter. Goodbye.

Operator

Before we conclude TSMC's first quarter 2010 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.
