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OVERVIEW:

Co. reported 2Q13 revenue of TWD156b and EPS of TWD2. Expects 3Q13 revenue to be TWD161-164b.



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PRESENTATION

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Welcome to TSMC's Second Quarter 2013 earnings conference and conference call. This is Elizabeth Sun, TSMC's Director of Corporate Communications and your host for today. The event is webcast live via TSMC's website at www.tsmc.com. If you are joining us through the conference call, your dial-in lines are in listen-only mode. As this conference is being viewed by investors around the world, we will conduct this event in English only.

The format for today's event will be as follows. First, TSMC's Senior Vice President and Chief Financial Officer, Ms Lora Ho, will summarize our operations in the second quarter, followed by our guidance for the current quarter. Afterwards, TSMC's Chairman and Chief Executive Officer, Dr. Morris Chang, will provide his key messages. Then we will open the floor to questions.

For those participating on the call, if you do not yet have a copy of the press release, you may download it from the TSMC site, www.tsmc.com. Please also download the summary slides in relation to today's earnings conference presentation.

Before we begin, I would like to remind everybody that today's discussion may contain forward-looking statements and they are subject to significant risks and uncertainties which could cause actual results to differ materially from those contained in the forward-looking statements. Please refer to the Safe Harbor notice that appeared on our press release.

And now, I would like to turn the podium to Ms -- to TSMC's CFO, Ms Lora Ho.

Lora Ho - *Taiwan Semiconductor Manufacturing Co Ltd - CFO, SVP Finance*

Thank you, Elizabeth. Good afternoon, everyone. Thank you for joining us today. I will start my presentation with the financial highlights for the second quarter, and I will follow that by providing a guidance for the third quarter.



I am very pleased to announce another record quarter for TSMC in both revenue and net income in the second quarter of this year. The record result, once again, demonstrates that our investment in R&D and advanced capacities has started to pay off.

Looking at our numbers, our revenue increase is 17.4% to TWD156b, mainly due to strong demand for 28-nanometer technology, while some customers' need in building inventory for the launch of mobile products in the second half also helps.

On the market side, second quarter gross margin was 49%, up 3.2 percentage points from the first quarter, thanks to higher utilization rates, cost improvements, and more favorable exchange rates. Total operating expenses increased 14.8% to TWD18.8b, mainly due to higher R&D and operating expense. Despite that, second quarter operating margins expanded 3.5 percentage points to 37% on larger revenue base and higher gross margin.

Non-operating items were again of TWD2.4b in the second quarter, up from TWD1.3b in the previous quarter. The increase is mainly due to the legal settlement income, dividend from the invested companies, and one-time gain from a deconsolidation revaluation of assets. None of these are recurring but together, contributed about TWD0.04 of EPS to the second quarter. Overall, we made TWD2 EPS in the second quarter, and a single quarter ROE was 27.4%.

Let us have a look at the revenue by application. Mobile computing continued to drive our business growth in the second quarter. The revenue contribution for the communication segment further increased from 55% in the first quarter to 57% of total wafer revenue in the second quarter.

On a quarter-over-quarter basis, revenue increased across the board of all major segments. Communication again showed the strongest growth of 22%, followed by computer, 18%, industrial 11%, and consumer, 9%.

In terms of revenue by technology, as 28-nanometer continued to ramp successfully, the revenue contribution has significantly increased to 29% in the second quarter, from 24% in the first quarter.

Riding on the success of 28-nanometer, revenue from advanced technologies, defined as 40-nanometer and below, now already represents 50% of our total wafer revenue.

Moving to balance sheet, our cash and marketable securities increased TWD38b to TWD228b at the end of the second quarter, mainly due to proceeds from insurance of US dollar corporate bonds. Correspondingly, our long-term interest bearing debt increased TWD43b to TWD171b. Current liability increased by TWD85m, mainly because we accrued the cash dividend of TWD78b, which will be paid by the end of July.

Looking at the financial ratios, our account receivable turnover days remain flat at 43 days. Days of Inventory decreased by four days to 47 days, mainly due to the shipment out of finished goods and the lower working process inventory days.

On the cash flow side, in the second quarter, we generated TWD75b from operations, invested TWD78b in capital expenditures, and raised TWD45b through corporate bonds. In US dollar terms, we spent \$2.6b in capital expenditure in the second quarter. Together with a \$2.7b spent in the first quarter, we have already spent about 55% of our guided full year CapEx, which is \$9.5b to \$10b. Overall, our cash balance increased TWD40b to TWD226b. Free cash flow ended slightly negative at TWD3b.

Lastly, I would like to talk about our capacity plan. Our total capacity increased 3% to around 4m 8-inch equivalent wafer in the second quarter and will increase by another 6.5% to 4.3m wafers in the third quarter.

For the full year, our 12-inch capacity is expected to increase 17% year over year and our total annual capacity will increase 11% to 16.4m 8-inch equivalent wafers.

I have finished my financial summary. Before we talk about the third quarter outlook, I would like to brief you one change that impact our consolidated revenue. We used to consolidate XinTec, one of our invested companies, because TSMC's board representation in XinTec was greater than half. Recently, XinTec expanded its board structure by adding three (Company corrected after the conference call) independent directors in June. As a

result, TSMC's board representation is now less than half; therefore, we will no longer consolidate XinTec starting June 30 this year. The deconsolidation impact would be close to 1% reduction of our total revenue in the first quarter.

Taking this into consideration, our third quarter guidance will be as follows. Based on current business expectation and the forecast exchange rate of TWD29.83, we expect our revenue to be between TWD161b and TWD164b. In terms of margins, we expect the third quarter gross margin to be between 47% and 49%, and operating margin to be between 35% and 37%.

This concludes my remarks, let me turn the podium to our chairman and CEO, Dr. Morris Chang.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Good afternoon, ladies and gentlemen. On the screen, you see an outline of what I'm going say in my message today.

First, second quarter and third quarter, second quarter was a record quarter for TSMC, both in revenue and in earnings per share. This strength was mainly driven by the strong growth in mobile-related applications and TSMC's strong position in the 28-nanometer technology. We are rather pleased about the results of the second quarter.

The third quarter guidance has already been given to -- has already been given by our CFO and there will be growth in the third quarter and we are rather pleased about the expected performance of our third quarter as well.

Next, let me talk about industry outlook. The forecast and the supply chain inventory. For the full year 2013, we are forecasting a global GDP of 2.6%, which is unchanged from our forecast three months ago. For semiconductors however, we are lowering our earlier forecast of 4% growth to 3% -- 3% in 2013 for semiconductor production.

For fabless, we continue to forecast 9% growth; this is unchanged from our last forecast. For foundry, we are forecasting our 11% growth, this is the foundry industry, we are forecasting 11% growth which is up from 10%. For TSMC, we, again, forecast, a revenue growth which is much higher than the foundry industry growth. And that is unchanged.

Now, let us look at the supply chain inventory. Two things have happened in the last three months or two things have actually become more obvious in the last three months. First, the IC vendors' inventory preparation for product launch by several major handset makers. The IC vendors preparing for product launch by major -- by several major handset makers has caused the supply chain inventory days to increase.

Second, the lower than expected sales of PCs and several smartphone models have again, caused the supply chain inventory to become higher.

Now, in April, we have forecasted the fabless supply chain inventory to be 73 days -- I'm sorry, to be 70 days. In April, we had forecasted fabless supply chain inventory to be 70 days at the end of the second quarter. Now, we are forecasting -- we are saying that it will be -- it was 73 days at the end of the second quarter.

Now, three months ago, we were forecasting the supply chain -- the fabless supply chain inventory to be 68 days at the end of the third quarter, and now, we are forecasting it to be 71 days at the end of the third quarter. About the fourth quarter, three months ago, we were forecasting the inventory, again, for the fabless, to reach 66 and now, we are still forecasting 66.

So, our inventory days forecast for the fabless supply chain has increased for the second and third quarter, but remains unchanged in the fourth quarter. This is an early indication that the fourth quarter may be a down quarter because we expect the supply chain will take serious action to manage the inventory in the second half and the overall inventory, however, will approach the seasonal level by the fourth quarter. I'm talking about the 66 days that we are forecasting, that is very close to the seasonal level.

Now, a few words on our structural profitability. Since '09, I picked '09 because that was the year when I resumed my CEO responsibilities. Since '09, our structural profitability at constant exchange rate has improved by 7.7 points -- 770 basis points.



On the other hand, the '09 exchange rate was TWD32.87 and the year-to-date 2013 exchange rate is TWD29.66, a change of 9.8% -- almost 10%. And we have said several times that each point of change in exchange rate causes 0.4% change in our margin.

So the almost 10% change in exchange rate has caused a 4% change unfavorable in the margin. And therefore, at prevailing exchange rates, our structural profitability has improved by only 3.8%. Still, I think it's very encouraging and there are signs that the exchange rate might stabilize or perhaps the NT may even depreciate a little bit. And if that happens, it would, of course, help our progress in structural profitability even more.

Next, I want to talk about -- at any rate, the message here in the last section is that -- in the last four years, our structural profitability has improved by 3.8 points at prevailing exchange rates.

Next, I wanted to talk about high-end, mid-end, and low-end mobile product growth and TSMC's position. Mobile products have been important in driving the demand in recent years. And we will continue to enjoy robust growth in this year as well as in coming years.

High-end year-on-year growth this year was 18% -- or is 18%, we estimate, from 361m last year to 428m this year. Mid-end grows from 167m units to 227m units, a 36% growth. Low-end grows from 202m to 341m, a 69% growth. And so this year, we will see high end units to grow 18%, mid-end 36% and low-end 69% for a total smartphone year-to-year growth of 36%.

We are uniquely, as a foundry, we are uniquely positioned because of our comprehensive technology portfolio. We have solutions for just each tier, high, low, middle, each tier of the smartphone market. And of course, we benefit from the overall strength of the smartphone demand.

We, in particular, I want to point out, I think everyone knows about that, our 28-nanometer technology has allowed us to be very well positioned in the high end and probably mid-end. What I wanted particularly to point out that we are very well positioned in the low-end. Because of the comprehensive technology portfolio, we can -- through silicon area shrink and layer reductions, help our customer to streamline features and to integrate functionalities for their overall lower-cost designs.

China, of course, is a fast-growing area for mid- to low-end smartphones. We're seeing our Chinese customers, taking a more important role in providing chip solutions to the market. Many of them have accelerated their cadence in adopting advanced technology. As a result, our business from Chinese customers has doubled in the first half this year from a year ago. And for the whole year, our Chinese -- China region is expected to account for 6% of our total business this year.

Next, a few words on the 28 nanometers. Our 28 nanometers in on track to triple in wafer sales this year. And our 28-nanometer high-K metal gate is ramping fast and will exceed the Oxynitride solution starting this quarter.

For the Oxynitride solution in which we do have competitors, we believe that we have a substantial lead in yield. For the high-K metal gate solution, we do not have any serious competitors yet. We believe we have a substantial lead in performance. If you recall, ours is a gate-last version, and our competitors are mainly in the gate-first version.

So in high-K metal gate, we have a lead in power, our power is lower, in performance, our performance is better, and should the competitors who are in gate first now switch to gate last, they will be considerably behind us in yield learning, in yields. Our continued lead in yield and performance will keep our 28 nanometer market segment share strong for both this year and in future years.

Now, a few comments on 20, 16 and I want to say a few words on our grand alliance and also, I want to show you a few photographs of our new Giga-Fab which is dedicated to 20-nanometer and 16 nanometer.

20-nanometer SOC and 16-nanometer FinFET are both progressing well. On 20 nanometers, we see little competition. The risk production has started in the first quarter and the volume production will start in early 2014 next year and I will show you the photograph of our brand new fab and the equipment are already being installed, the equipment are streaming in and are being installed, are going to be tried out and the volume production will start in early 2014.

On 16 FinFET, it will start volume production about one year after 20SOC, in other words, early in 2015. Our R&D progress on 16 FinFET is very good, new improvement, is better than plan, and is better than 20 nanometer a year ago. And we have been working on -- we have been working with several major customers and many tape-outs, many product tape-outs are planned for next year. But the joint work is essential for -- before tape-outs, of course, and that joint work has been progressing for some time.

Grand alliance, by that, we mean our alliance with customers, with the design, electronic design -- EDA companies, and companies such as ARM and Imagination Technologies, and companies like Cadence, Mentor Graphics, as well as our own platform the open innovation platform. So it's an alliance with customers, with the EDA companies, with the IP providers, and of course, with the key vendors -- the critical vendors.

Now, the reason I want to point that out is that for TSMC, we have entered a new era of competition. We pointed it out almost every time we get together in this meeting and we have been pointing it out for the last one or two years now.

Now, in this new era of competition, the competition is not foundry to foundry, it is not foundry to IDM, it is grand alliance to IDM. Have I made it clear? That is the reason I am talking about.

Now, so -- we feel on the 16, on the 20, I already said that we see little competition. On the 16, if we put it on a foundry to foundry, or foundry to IDM basis, we are competitive. If you put a grand alliance to IDM basis we are more than competitive.

Now, I'm going to show you a few photographs of our new Giga-Fab, which as I said is dedicated to 20 and 16. Now, is there no pointer? There is no pointer? Well, that is too bad. But I don't think there will be any problem with this photograph or with the next two because you see the big building, almost in the middle of the photograph and that is our P5. Phase five of Fab14, it's located in Tainan and it will start -- it's the first one. It is just one-third of the Giga-Fab. One-third, I will show you the other two-thirds in the next two photographs.

And this third -- of this 16, 20, 16-nanometer and 20-nanometer Giga-Fab will start production, I said earlier in early 2014, and this picture says February 2014. And this particular Phase 5 has a total floor space of [184,000] (Company corrected after the conference call) square meters.

Next please. Can you switch it back please, this is finished. The building is finished, as I have said, the equipment are streaming in, being installed, being tested out to get ready for the volume ramp up in early 2014.

Next photograph is the second one-third of our 20-nanometer, 16-nanometer Giga-Fab. And this one is only half finished because volume production will start only in May of next year. And it's about the same size. The total floor space is 180,000 square meters, about the same as the last one.

Next please, this is the last one-third of this new Giga-Fab. And you can see that -- you don't see very much yet but you see what is going on, it is very busy. I think the foundation and so on has been laid, etc, etc.

It will start production, volume production in April of 2015. And its total floor space is about the same as each of the other two. Altogether, these three phases of this Mega-Fab -- Giga-Fab, is about 550,000 square meters. Just in comparison, our 28 facility which is in Taichung, is about 400,000 square meters. So this one is 550,000 and it is dedicated for 20 and 16 and 28 is about 400,000.

And I -- all right, let us show the next photograph. Without a pointer, this is going to be more difficult. This is our Tainan campus or complex, and in the upper part, you see the old fabs, old, most of them are less than 10 years old, but they are old compared to the new phases I just pointed out to you. Then right below them, you see the new fabs. And there is one other side -- it's our backend, that is where our 3D IC is going to be -- that's where our CoWoS is also.

And now, actually -- yes, thank you very much. I think this will help.

Well, I'm not going to point out the old fabs, but this is Phase five, this is the first of the new phases -- Phase five. And this is Phase six, and this is Phase seven. Now, I do want to point out one very, very important aspect of this Giga-Fab. Even though you see three separate buildings, but they will all be connected, they will all be -- all these three will be connected by clean-room links.



All right, so much for the photographs.

A few words on EUV. Last time, I think I pointed out that we had -- we just had a breakthrough last time on EUV -- or I should say, ASML had a breakthrough on EUV. Now, progress has continued, Cymer and ASML have demonstrated an EUV power output of 40 watts on their factory floor. The next step for ASML is to achieve 80 watts of source power.

While there is still some distance to reach the source power of 250 watts, 40 already achieved, the next milestone is 80, and then the -- economically desirable threshold is 250 watts. 250 watts will give us a throughput of 125 wafers per hour, which is the economic threshold. While there is still some distance to get there, we are collaborating with ASML very closely to ensure that EUV can become production ready by 10 nanometer, at least for the critical layers.

Next, Specialty technologies. Specialty technologies like -- when we say specialty technologies, we mean we include high voltage for power management ICs, mixed signal for audio codec, embedded flash for MCU, MEMS for motion sensors, CMOS image sensors for digital cameras.

Now, in addition to those that we have been working on for a long, long time, in addition to those, the following specialty technologies are expected to grow significantly next year. Image signal processors stacked with CIS -- that is processors stacked with the sensors -- mixed signal for fingerprinting sensors, high voltage for small panel drivers, small panel drivers, and embedded flash for near-field communications, smartcards and touch-screen controllers.

What differentiates TSMC in the specialty technology foundry arena besides the fact that we have the largest capacity in the broadest scope is our superior ability to integrate specialty devices, flash, CIS, RF, high voltage, power and MEMS, we integrate those specialty devices into our strong CMOS baseline while maintaining our CMOS IP compatibility.

Those are all the comments I have prepared. I believe we are now open for Q&A.

QUESTIONS AND ANSWERS

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Right. Yes. This concludes our prepared statement. Before we begin the Q&A session, I would like to remind everybody to limit your questions to two at a time to allow all participants an opportunity to ask questions. Questions will be taken both from the floor as well as from the call. Should you wish to raise your question in Chinese, I will translate it into English before our CEO or CFO answers your question.

For those of you on the call, if you would like to ask a question, please press the star then 1 on your telephone keypad now. Questions will be taken in order in which they are received. If at any time you would like to remove yourself from the question queue, please press the pound or the hash key. Now let's begin the Q&A session.

First question comes from the floor, and that would be Credit Suisse, Randy Abrams.

Randy Abrams - *Credit Suisse - Analyst*

Thank you. The first question on the margins short term and then medium term. For third-quarter guidance, I just want to see why you're guiding a decline for margins on a small increase in sales.

And into 2014 as you ramp 20 nanometer, with a steep ramp, do you see any margin impact in the early stage of 20 nanometer?



Lora Ho - *Taiwan Semiconductor Manufacturing Co Ltd - CFO, SVP Finance*

Randy, you're asking for the third-quarter guidance for the margin. We are adding capacity in third quarter. I was talking about another 6.5% leading-edge technology. For third quarter, as Chairman just mentioned, we are going through the inventory corrections period. So we expect the third-quarter utilization will be lower than second quarter. That's the main reason that the revenue improves but the margin doesn't improve.

You also asked about going to 2014 when we ramp 20 nanometer, how that will affect our margin. Every new technology, when it comes to the mass production, it in early beginning it always starts with lower margins. But when the quantity starts to go up, maybe after seven or eight quarters, the margin will be getting closer to corporate average. So we expect that will happen for 20-nanometer as well.

Randy Abrams - *Credit Suisse - Analyst*

Can I have one follow-up on that question. If you expect, even with 20 ramping up, structural profitability will continue to see at least maintain or how do you see structural profitability and depreciation in 2014?

Lora Ho - *Taiwan Semiconductor Manufacturing Co Ltd - CFO, SVP Finance*

We are confident we can maintain the structural profitability.

Randy Abrams - *Credit Suisse - Analyst*

Okay. The second question, and it probably relates to some of the pictures of the big fabs that are getting built, and I want to ask if you've any concern. You spend the CapEx. I think some of these large customers switch foundries, so that they switch foundries every node. And if you've put a lot of investment, just curious to see assurance that if you bring in some of these projects you can maintain that business for several nodes.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Switch foundries meaning--?

Randy Abrams - *Credit Suisse - Analyst*

For TSMC, if you put in this fab capacity targeting some large customers, just the assurance you can maintain that customer relationship for several nodes.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Well, you realize that we don't always put in the amount of capacity that the customer requests. And we do make our own estimates and so on. We have not and will not always follow the customers' estimates for their capacity needs. So I don't know if that answers your question much. Your question, as I understood it, was that you put in the capacity and the customer switches foundries, etc. My answer is that we try to anticipate what foundries will switch. You still look a little puzzled.

Randy Abrams - *Credit Suisse - Analyst*

Maybe to rephrase it, because some of these customers are getting quite large in amount of capacity demand. So for product generation, you build capacity for that customer because it's a huge volume at the next node it switches. Like if you --



Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

They switch what?

Randy Abrams - *Credit Suisse - Analyst*

Switch their different -- switch their business to another foundry.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

That does not happen. That does not happen, no. You must be -- your experience must be with commodity products. I'm sorry to say that because obviously your experience is not only with commodity products. But I can assure you that -- and I kept emphasizing all through the last 10, 15 years that our strength was in three directions, technology, manufacturing and customer relationships. So when you say that customer works with us and suddenly (inaudible) works with us, we build the capacity and then suddenly after the capacity's built, he switches a foundry. That does not happen.

Randy Abrams - *Credit Suisse - Analyst*

Thank you.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

For his sake as well as for ours.

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Okay. Good. Next question would be coming from the floor again, from Deutsche Bank, Michael Chou.

Michael Chou - *Deutsche Bank - Analyst*

Chairman, you gave guidance before regarding 20-nanometer sales portion in Q2 with low single digit. Do you have any revision for that or do you maintain the same guidance?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

So Q2?

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Q2 next year, how much 20 nanometer will account for our revenue?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Well, Q2 next year, I don't know. But for whole year next year, I expect it will be the high single-digit percent of our total revenue.



Michael Chou - *Deutsche Bank - Analyst*

Thank you. Second question --.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

I think that's correct, isn't it? For the whole year next year, I think 20 nanometers will be in the high single-digit percent of our total revenue.

Michael Chou - *Deutsche Bank - Analyst*

Thank you. My second question is what is the outlook by segment in Q3 this year?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

What --?

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Segment outlook. I think Lora --

Lora Ho - *Taiwan Semiconductor Manufacturing Co Ltd - CFO, SVP Finance*

Let me take that. In third quarter, computer will decline the most, followed by communications with modest decline. We expect consumer industrial for TSMC will go up in third quarter.

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Next question, will still be coming from the floor and it will be from JPMorgan, JJ Park.

JJ Park - *JPMorgan - Analyst*

Okay. First of all, congratulations for another very good quarter. Very impressive. The first question is what's your view on the longer life cycle for the 20 nano given increasing capital intensity moving down to 20 nano and then FinFET. I believe the 20 nano, the life cycle could be longer than the previous technology.

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

So your question is whether or not 20 nanometer will have a shorter lifecycle as compared to prior nodes.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

I think yes, probably. But, well, I said our Giga-Fab is for both 20 and 16. So yes, 20 will -- I think will have probably, I'm not sure yet, a shorter life than 28. But then we can rather quickly convert the capacity to 16. I think 20 and 16 together will have a longer life than 28. Well, actually everything has a long life in TSMC anyway. We are still making 1 micron or -- 1 micron still, yes? 0.5, well, I guess we're not making 1 micron any more. 0.5 micron.



And so when you say short life or long life, if you refer to a customer's usage, a specific customer's usage, yes, maybe. But we have second wave, third wave and we have the specialty technology users who are something outside the second wave and third wave. We have second wave, third wave, large users, and then we have, outside the second, third waves, we have the specialty technology, who in time sequence are usually in the second, third or fourth or fifth wave.

JJ Park - *JPMorgan - Analyst*

Okay. My second question is you mentioned about the competitive advantages with the gate-last. And (inaudible) your competitor is going to use the gate-last from the 20 nano. So based on your experience how difficult and how much time they require to commercialize gate-last at the 20 nano from the gate-first?

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

So your question is with regard to whether or not there will be competitors switching to gate-last at 28 nanometer.

JJ Park - *JPMorgan - Analyst*

No, from the 20 nano.

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

In 20 nano. Switching at 20 nanometer to gate-last. So how much time and how difficult it will be for such a competitor to switch.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

I don't know. It depends on his capability, I think -- I don't know. I think it takes a long time, that's for sure. A year, maybe even longer. And do I see anybody switching, any competitors? I don't even know the answer to that. I do know that we don't see any serious competition at the 20-nanometer node.

JJ Park - *JPMorgan - Analyst*

Thank you very much.

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Okay. I think it's about time that we should take a question, next question, from the call. Operator, please proceed with the next caller on the line.

Operator

The next question from the call comes from Steven Pelayo from HSBC. Please ask your questions.

Steven Pelayo - *HSBC - Analyst*

Great. Thank you for taking my question. I'm curious about you mentioned third-quarter utilization rates declining slightly. You mentioned the possibility of third-quarter revenues also being down. You also talked about capacity being up a lot in the third quarter. So I guess I would like to



hear you comment on utilization rates by node. And in particular are you keeping the leading-edge nodes full? And if not, the negative leverage effect the margins if the leading edge is not fully utilized.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Well, first to answer your question generally, I do think actually about a year ago I predicted almost the same phenomenon for the fourth quarter last year and the first quarter this year about a year ago. In fact, it was a year ago that I said that the fourth quarter might be down and the first quarter might also be down, fourth quarter last year, first quarter this year might also be. But the second quarter we would see a sharp rebound. Said that in July of 2012. And it happened that way, pretty much.

And now, this year, July 2013, and I see almost the same thing, except I think there is a bit of difference. The fourth quarter down could be a little more severe than the last year, than the fourth quarter down last year. And, however, the first quarter down will not be as severe as the first quarter down this year. Am I making myself clear? I think that last year generally our fourth quarter was down by about 7%. And I just said now that -- well anyway. It could be a little more severe than that.

And the first quarter, however, could be reasonably flat from the fourth quarter. And, however, the second quarter, next year's second quarter will rebound. It's going to be, I believe, a very strong one, just as this year's second quarter rebound was. So that's answering the question generally.

And I think that our third quarter, by the way, you said the third quarter -- you said fourth quarter will also be down. Our third quarter is up; it's not down. Okay? And but you asked whether the margin, you said --?

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Yes, Steve's question was if the loading rate, (multiple speakers --.

Steven Pelayo - *HSBC - Analyst*

I was just asking relative to the utilization rate by node if the leading edge isn't as fully utilized, does it have a more profound impact to your margins.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

28 nanometer is still fully loaded in the third quarter. And how well it will be loaded in the fourth quarter is, at this point, unknown. But I think that it may be less than 100% loaded in the fourth quarter. Now, the other nodes, 45 and 65, etc., well, they will not be -- some of them are still fully loaded in the third quarter but may not be fully loaded in the fourth quarter. But we are really not giving fourth-quarter guidance right now. So I want to limit the guidance.

Steven Pelayo - *HSBC - Analyst*

Okay. And then just one final question. This is really just a clarification. I think last quarter you spoke about 20 nanometer in its first year being bigger than what 28 nanometer was. This quarter you're now saying 20 nanometer is going to be high single-digit percentages of revenue, so I guess it depends what we think the total revenue number's going to be. I'm just curious, is there a change there on what you think the total dollar contribution can be next year for 28 nanometer -- for 20 nanometer at TSMC?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Well actually, the first year of 28 nanometer was 2011.



Steven Pelayo - HSBC - Analyst

I'm sorry.

Morris Chang - Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO

The first year of 28 nanometer was 2011. And I'm quite sure that in 2011 28 nanometer did not reach a percent of our total revenue. Yes.

Steven Pelayo - HSBC - Analyst

Okay. Understood. Thank you.

Elizabeth Sun - Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division

Next question, I think we will still keep it on the call, so operator, please proceed to the next caller.

Operator

Your next question from the phone comes from Mehdi Hosseini from SIG. Please ask your question.

Mehdi Hosseini - SIG - Analyst

Yes. Thanks for taking my question. Dr. Chang, early on in your prepared remarks you talked about the growth rate of -- for high-end smartphone peaking and the low to mid range is growing at a faster rate. And also you talked about the very expensive and very extensive 20 and 16 nanometer that has gone to construction. So do you think that profitability for the new smartphones, given the fact that they're going to be selling at a lower price, could help bringing up demand to fill these Giga fabs?

Elizabeth Sun - Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division

Mehdi, I think I am able to capture the first part of your question, but the second part, after you said that we're building bigger fabs for 20 and 16, what was -- can you repeat that part again?

Mehdi Hosseini - SIG - Analyst

Sure. Let me repeat the entire question. I'm just trying to better understand what Dr. Chang thinks about the trend in the smartphone and the trend towards the low end and getting now profitability for the fabless companies to migrate to 20 and 16 nanometer nodes.

Elizabeth Sun - Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division

So you want to -- your question is based upon the trends, the smartphone trend is towards faster growth on the lower end, whether or not there's still the need to fast ramp the leading-edge nodes such as 20 and 16. Is that your question?

Mehdi Hosseini - SIG - Analyst

Yes. Thank you.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

You confirmed that that was his question, but would you repeat the question to me?

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Right. His question is the trend in smartphones is shifting towards higher growth at low end, but we are still building very fast a leading-edge capacity at 20 and 16.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

So we are still building --?

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Leading-edge capacity at 20 and 16.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Yes. Yes. I think the question was whether the low end will migrate to 16. I think so, very definitely. Well, but it's only a question of time. And I don't frankly know. 16, well, even the leading edge won't start using 16 until 2015. And I think that the lower end, the lower end manufacturers will probably be, I would say, at least two years behind, 2017.

Are you worried about -- is he worried about our capacity utilization for 16? Well, I don't know what I can say to assure you again and again and again. This question came up almost for every generation. And I -- again, I think, well, first, the premise. The premise is that we do not build capacity until we are quite confident of the demand. That's premise number one. We do not build capacity until we are quite confident of the demand. And we look at demand not by market segment but by customer. And we base the confidence on the work that we have already been doing with the customer. That's premise number one, that we don't build capacity until we are reasonably confident, highly confident of the demand.

The second premise is that we do have waves, succeeding waves of customers. When the first wave migrates to an even more advanced node, we have second wave, third wave. And we have specialty technology customers taking over the capacity that the first wave, the succeeding waves ahead of them have left behind.

Mehdi Hosseini - *SIG - Analyst*

Maybe my follow-up would be since you're very clear that you're not going to build capacity ahead of demand, so would you comment or would you help us with any idea of how next year CapEx could look like at this point in time?

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Next year's CapEx. His question is next year's CapEx.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Next year's CapEx will be about the same, about the same as this year.

Mehdi Hosseini - *SIG - Analyst*

Got it. Thank you.

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Okay. Let's come back to the floor. The next question will be coming from the floor and will be coming from Morgan Stanley, Bill Lu.

Bill Lu - *Morgan Stanley - Analyst*

Thank you. Dr. Chang, you talked about building capacity based on customers. I went back and looked at your annual report. Top 10 was 51% of sales in 2007. Last year was 59%. Top one was 11% 2007, 17% 2012. So quite a big increase in customer concentration. And I think probably you can expect that going forward that gets bigger, with the big customers coming on board. But top two could be one-third of revenue?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

That makes it easier for us in terms of building capacity, in terms of actual capacity, right?

Bill Lu - *Morgan Stanley - Analyst*

Yes. But I guess I'm just wondering, do you have more customer-specific risk going forward and how do you deal with that?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

There are always risks. You've got risks crossing the street but you take it and I think that frankly, the way I look at it, we want to make our relationship with our major, major customers such that the risk of their -- the way -- the way he put it, switching [foundries], right. The way we work with customers, the major, major customers, makes the risks of their switching foundries almost as small as crossing the street.

Bill Lu - *Morgan Stanley - Analyst*

I guess I'm not as much worried about them switching as much as one customer who doesn't do well, with a poor product line or something.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

He has what, a blowout?

Bill Lu - *Morgan Stanley - Analyst*

I guess I think customer risk could be one of switching, but two, if one particular chip doesn't do well or --.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Sure. Sure. That risk exists. As I said, remember what I said earlier that we don't always build capacity -- build as much capacity as they would like us to build. Everybody I think tends to be a little optimistic about his own new products or whatever, new markets and so on.



Bill Lu - Morgan Stanley - Analyst

My second question is you broke down smartphones by high end, mid end, low end. I think it was last year, maybe the year before, you had given a content per smartphone type of number for TSMC. Could you give us that maybe now versus --?

Morris Chang - Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO

Do you remember the number?

Bill Lu - Morgan Stanley - Analyst

It was \$8 point something.

Morris Chang - Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO

Was it that much? No.

Elizabeth Sun - Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division

I think we said \$7 on average.

Morris Chang - Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO

What's the use of telling you this if you don't even remember what I told you last time? Well anyway, the reason why I try to test you is because I wanted to tell you a new number but I just first wanted to test whether you remembered the last one or not. In any case, for the high end and middle end, the number has risen by about \$1. The smartphones have become smarter, partly because they carry ICs, more ICs made by us. And that's why the content has -- our value added in each high end and middle end has risen by about \$1.

The low end, I haven't seen the number. Do we have low end value? Yes, go ahead.

Lora Ho - Taiwan Semiconductor Manufacturing Co Ltd - CFO, SVP Finance

The average smartphone we have \$7 per phone. For the low end it's \$4. Middle end \$6 and high end \$9.

Bill Lu - Morgan Stanley - Analyst

So the average hasn't changed from before?

Lora Ho - Taiwan Semiconductor Manufacturing Co Ltd - CFO, SVP Finance

\$7.

Bill Lu - Morgan Stanley - Analyst

Okay.



Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Our average as the lower end has increased. And low end, you can't have \$8 or \$9 in the low end. The consumers don't want to pay that. They don't need all those features either.

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Our next question still comes from the floor and will be from Goldman Sachs, Donald Lu.

Donald Lu - *Goldman Sachs - Analyst*

(Spoken in Chinese). I have to be careful asking questions that I don't get a question back. My first question is on second sourcing. I noticed the trend, before 28 nanometers, there's always substantial amount of second sourcing going on. In 28 and 20 seems like very little. And in your speech, quoting your words, you said for FinFET we need substantial joint work between foundry and customer. Does that mean the second source kind of business model is not going to work very well in the future in terms of foundry second source?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

It's very difficult. Foundry second source has always been a difficult thing. And I think that -- but that it will work, yes. I think it could work. But the second source usually would be considerably behind, considerably behind the first source.

Donald Lu - *Goldman Sachs - Analyst*

Would this gap continue to increase with each node going forward?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

I don't believe so. Certainly -- let me put it this way. Where we are the first source, we are going to certainly do our best to prevent any second source. Where we have the opportunity of becoming a second source, we will often refuse to be one. It's very difficult. I think it's difficult and I do not think it is the way to go for either the customer or the supplier.

Donald Lu - *Goldman Sachs - Analyst*

Just following up on that question. If a customer for a particular product, is that still possible to source it at both TSMC and another foundry at the same time? Or is that the design process is so different it's going to be --?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

It's difficult for the same product. For the same technology, yes, I think I can see that it's possible. It's not only possible. But that's not really second source though any more. That's two first sources in the same technology, yes.

Donald Lu - *Goldman Sachs - Analyst*

Okay. So that's still --?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Yes.

Donald Lu - *Goldman Sachs - Analyst*

And the second question is that today, when you showed these pictures of fabs, you stressed that all the Giga-Fabs can be connected. I noticed that comparing TSMC with Samsung and Intel, TSMC definitely is going to have huge fabs that are connected, versus the other two are more scattered around the world for various reasons. For TSMC, number one would mean that will give you more cost advantage. Is that still the case for FinFET, etc., going forward? Even you have one large, very huge --?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Cost advantage, yes, I believe there is some cost advantage in connecting all the fabs into one bigger fab. But I think the main advantage is probably in time to expand or time to market. That is -- we qualify only once because -- and one big Giga-Fab we qualify only once, whereas if they are disconnected, if they are separate fabs, then usually we have to qualify each fab. On the same product, that is, or on the same technology, let's say.

Donald Lu - *Goldman Sachs - Analyst*

And just following up on that, this also means TSMC will probably not build a 12-inch fab let's say in the US or China. Is that strategy still --?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

You are predicting things for me, Donald. No, I -- we always consider doing things, but I think every time in the past we just run up against this stuff, which is very costly to do in a separate location, in another very different location.

Well, we have expanded our China fab considerably in the last two years. It is not what you knew two years ago. It's twice as large as the size two years ago, yes.

Donald Lu - *Goldman Sachs - Analyst*

Is that profitable?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Yes, yes. Why would we do it if it wasn't?

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Okay. Next question also comes from the floor and it will be from --.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

It is very profitable actually. Yes.



Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

I hope the next question is also related to a very profitable question from Barclays, Andrew Lu.

Andrew Lu - *Barclays - Analyst*

Dr. Chang and Lora, I have two questions. First one, I remember last year, almost at same time, I think it was July 20 something, you mentioned that Q4 would be down. In that time you said it will be ballpark of the double-digit, close to 10% decline. But you end up with a rush order and Q4 revenue declined only 7%. The same for Q1. Earlier you guided a similar decline like Q4 and that was 1% decline. Based on your current visibility, earlier you mentioned will be similar or worse, worse than last year, are you saying worse than 7% decline or worse than your original guidance last year where you give about 10%?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

No, I meant worse than the 7%, the actual 7%, yes. Could be worse.

Andrew Lu - *Barclays - Analyst*

Could be double digits?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Well, actually I regret that I even went into the fourth quarter right now. No, I don't expect it to be double -- I don't, well, I think it will be a decline and -- but I normally don't even guide or forecast the quarter after this. But when I see something unusual happening, I do try to tell you in advance. And that was the case last time and it's a year ago and it's the same case this time. Same situation this time. I see a very -- a finite possibility of the fourth quarter being down from the third quarter, yes.

As to its magnitude, I really -- when I said that maybe a little more serious than the minus 7% last year, I was taking a risk. So -- and that is risk is greater than crossing the street, by the way. Okay?

Andrew Lu - *Barclays - Analyst*

My second question, regarding the FinFET competition, Intel, based on all industry check, Intel will ramp up 14 FinFET at second half next year, probably will start to do the foundry in the year 2015. And Samsung claim they are going to jump from 28 to 14 FinFET similar like year 2015. Our FinFET also will mass produce from early '15. So my question is based on these industry competitors and also some customers' comments, our 16 FinFET, the die size is larger than our competitor's 14 FinFET and performance a little bit worse than compared to 14 FinFET. Do you have any words to defend this statement?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

No. I'm telling you that our 16 -- well, first of all, you have to remember, nothing is out yet. Everybody is just talking, talking, talking. Okay? Yes. And then I stand on what I said, I guess it was 30 minutes ago now. On foundry-to-foundry competition, I believe we are competitive on the 16. On a grand alliance versus IDM competition, I believe we are more than competitive.

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

Okay. I believe that this is about time for us to take a question from the call. Operator, could you please proceed to the next caller?

Operator

Your next question from the phone comes from Brett Simpson from Arete Research. Please ask the question.

Brett Simpson - *Arete Research - Analyst*

Thanks very much. Dr. Chang, you mentioned the competition are not ramping 28, the high-K metal gate yet. You're not seeing any competitors there. And your loading will start to come down towards the end of this year and then rebound in second quarter. So during this time we're going to see TSMC adding new capacity or ramping of new giga-fabs, but also this time we're going to have GlobalFoundries planning to add a lot of 300-millimeter capacity as they eventually get into 28-nanometer high-K metal gate. So my question, are you concerned at all about overall foundry supply that's coming on stream over the next 12 months?

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

All right. Brett, your question is with respect to the over -- potential oversupply condition for 28 nanometer, starting fourth quarter this year. You're concerned whether or not TSMC as well as competitions are building -- continuing to build 28-nanometer capacity, it will create a glut. Is that your question?

Brett Simpson - *Arete Research - Analyst*

Yes, particularly GlobalFoundries, who seem to be adding a lot of 300-millimeter capacity. And at some point they will start to ramp up 28-nanometer high-K metal gate. So I'm trying to understand whether Dr. Chang sees any oversupply conditions over the next 12 months, yes.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

28-nanometer oversupply for next year. I don't think it will happen. Do you want to know the reasons why it won't happen?

Brett Simpson - *Arete Research - Analyst*

Yes, please.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Well, I already said it. I think we have a substantial lead on yield and on performance in 28 nanometer. So while other competitors, or at least some of the other competitors, are talking about building capacity and even actually building capacity, I think that we will have a much higher utilization in our capacity than those of competitors, much higher. And this has happened before, when -- this in fact has been happening all along, in the last 15 years or so. While we always build capacity, we knew who our customers would be and at least we knew at least approximately what their demand would be, real demand.

While we build our capacity on that kind of knowledge, our competitors often build capacity on speculation. So you might say, well, that's certainly not very advantageous to you either. Well, no. It was not very advantageous for us, but we still managed to hold our profitability. We still, over all these years, in almost all nodes, 0.13, 90 nanometer, 60 nanometer, 65 nanometer, 45 nanometer, it has always happened. Our competitors build



capacity on speculation. Well, the results in every generation was that we still got our profitability, in fact our structural profitability, as I pointed out, has improved. And we also had very much high utilization in our capacity at each node than our competitors.

And if you look at the history, you will find out. This is why our profits, I think even now, of course, GlobalFoundries, GlobalFoundries is not a public company and Samsung, Intel, I don't think exactly disclose their foundry income. But back when we had competitive foundry competitors that disclosed their revenue and earning, we had only 50% of the revenue of the total industry, but we had 100% of the profits. That means we've -- the rest of the competitors, they either had -- if they had negative profit, they had positive profit, it was cancelled out by some other's negative profit. We had 50% revenue and 100% profit. And I think that it will continue to be that way, frankly. So I --

Brett Simpson - Arete Research - Analyst

Can I --?

Morris Chang - Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO

Yes?

Brett Simpson - Arete Research - Analyst

Can I perhaps just ask a follow-on question, Dr. Chang, about wafer ASPs. Your wafer pricing has been rising quite nicely over the last 12, 18 months as you've ramped 28 nanometer much faster than prior nodes. Can you talk a little bit about how you see wafer ASPs trending over the next few years as you start to ramp up 20 nanometer and 16 FinFET? Should we continue to see wafer ASPs rise at similar levels?

Morris Chang - Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO

Yes. The blended average price will continue to rise.

Brett Simpson - Arete Research - Analyst

Great. Thank you.

Elizabeth Sun - Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division

Let's come back to the floor. The next question will come from Citigroup, Roland Shu.

Roland Shu - Citigroup - Analyst

Thanks. Chairman, I think the first question for me is that 16 nanometer adoption. Will customer, skipping 20 nanometer go to 16 directly or customer will take small magnitudes sequentially, migrate to 20 nanometer first and move to 16 nanometer? This is my first question.

Morris Chang - Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO

Will they skip 20 nanometer, is that the question? Yes, I think some customers might. Some. But I think a larger part of the customers, a larger percentage of customers will go to 20 first and then 16.

Roland Shu - Citigroup - Analyst

Okay. And so follow-on question will be for those 20-nanometer customers, will it be enough incentive for them to move to -- from 20 to 16. Of course, we know there are a lot improvement from 28 to 16. How about the comparison from 20 to 16? Will that offer more incentive for customers to migrate to?

Morris Chang - Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO

No. You're talking about performance and power and that sort of thing. Well I think they get a bit too detailed for me to talk to you.

Elizabeth Sun - Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division

I think we have said our advantage of 16 nanometer over 20 is for speed, performance. It will be 20% faster at the same total power and it will be 35% better efficiency in power given the total speed, given the same speed.

Roland Shu - Citigroup - Analyst

Thank you. My second question is on the gross margin side. I think in 3Q definitely we are going to have more 20-nanometer wafer contribution in the second half and for the first quarter, 24%, second quarter 29%, then 3Q will be up to about 30%. And also we'll have more high-k metal gate so the blended ASP should be up. But still we still have the lower gross margin. So can Lora comment about maybe give us some ideas. What's the margin impact from this increasing 28-nanometer and also for this decreasing utilization in 3Q. Thank you.

Lora Ho - Taiwan Semiconductor Manufacturing Co Ltd - CFO, SVP Finance

28 nanometer continuing to increase actually helps the overall margin. Even in the third quarter I was guiding a lower profitability, but not because of 28. 28 still doing nicely and it will be fully loaded. It's other nodes will be less utilized. So to answer your question, basically other nodes have lower utilization.

Elizabeth Sun - Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division

Roland, are you done with all your questions?

Roland Shu - Citigroup - Analyst

Okay. Great. All right. He's the first that only take one question. Okay. Next one comes from -- you're Daiwa, right? Right, Daiwa, Eric Chen.

Eric Chen - Daiwa - Analyst

Hi, Chairman, Lora. The first question, the one question regarding to your China strategy. We talked about a lot at the high end, the mid end and the low end of smartphone, and that from my understanding, your market share and for the China clients in the smartphone IC lower than your market share for the global smartphone IC maker.

Morris Chang - Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO

I don't know whether that's true or not.

Eric Chen - *Daiwa - Analyst*

Okay. My guess let me say this way --

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

You're shaking your head to you deny that that's true or what?

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

I don't think it is lower, yes.

Eric Chen - *Daiwa - Analyst*

Yes, that's higher. And my question is China smartphone IC makers, they care about wafer costs.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

They what?

Eric Chen - *Daiwa - Analyst*

They care about wafer costs, price sensitive.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Yes.

Eric Chen - *Daiwa - Analyst*

And they probably bargain the wafer price and even more severe and then again they are more sensitive. So any strategy you have for whether China, either the PC IC maker or the smartphone IC maker. Probably the one example is one guy just moved to the GlobalFoundries. So are you seeing this trend?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Again, anybody -- somebody moves to a competitor, I feel very sad. This particular one and the last time when I said I was very regretful when another one of our customers moves to Intel. This particular one -- I think I know what you're talking about. I know who you're talking about. I will use a word that's considerable less than regret. Okay? So yes, we know that they are very price conscious. And we try to work them. Actually we, as you say, we try to work with our customers. We don't have to work with their customers because their customers are the price-conscious ones. Now -- so yes, but, as I reported in my message, we've been quite successful so far.



Eric Chen - *Daiwa - Analyst*

Okay. Thank you. My second question probably goes to Lora first. If we -- for the CapEx for next year is flat from this year, what kind of -- how many percent the capacity growth and depreciation expenses growth for this year

Lora Ho - *Taiwan Semiconductor Manufacturing Co Ltd - CFO, SVP Finance*

I have no idea this number. Chairman just gave you a ballpark of the total CapEx. So we have not calculated data on that.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

I gave him a little more than ballpark. I gave him the size of the diamond, but anyway. Are you a baseball fan? You know what I'm talking about? A ballpark is maybe 10 times the size of the diamond.

Eric Chen - *Daiwa - Analyst*

Okay. And actually the follow-up the question regarding to the CapEx. I just really want to know exactly why you're so confident for the demand. You know that yesterday the Intel announced that they are going to cut CapEx by --?

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

Why am I so confident of what demand?

Eric Chen - *Daiwa - Analyst*

The market demand and your CapEx.

Morris Chang - *Taiwan Semiconductor Manufacturing Co Ltd - Chairman, CEO*

I'm confident because I have usually been right. Yes.

Eric Chen - *Daiwa - Analyst*

Okay, thank you, Mr. Right.

Elizabeth Sun - *Taiwan Semiconductor Manufacturing Co Ltd - Director of Corporate Communication Division*

All right. I think in the interest of time and we're already a little over -- it's about 100 minutes now, so I think we'll just end our investor's conference for this quarter right now. And thank you for coming. We'll see you next quarter.



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