Pacific Crest Global Technology Leadership Forum

Company Participants

- Chris Evenden, Director of IR

Other Participants

- Mike McConnell, Analyst, Pacific Crest
- Unidentified Participant, Analyst, Unknown

Presentation

Mike McConnell {BIO 4740633 <GO>}

Good afternoon. For those of you who don't know me, I am Mike McConnell. I am the semiconductor analyst at Pacific Crest. We are very pleased this afternoon to have Chris Evenden, the director of Investor Relations from NVIDIA. I want to keep this as open and interactive as possible. I'm going to start off with a few questions. And if any of you do have questions, obviously that would be encouraged.

So maybe kicking it off on, I think, the bright spot, clearly, for the Company so far this year has been record high gross margins. And can you maybe talk about the reasons for the margin expansion? And I think, most importantly, with the record high you set last week on your conference call, how sustainable do you think these levels will be?

Chris Evenden {BIO 18934997 <GO>}

Yes. That's fair. I think it's worth taking a step back and noting that before the recent run in the last couple of years, where we've been steadily increasing -- the trend has been undeniably up. Our previous record high gross margin was 46.3%. And that came at a time when AMD had hopelessly uncompetitive products. And we had the market essentially to ourselves.

And so it's worth reiterating just how far we've come in that couple of years. So here we are at 56 points of margin in a market that's not very strong. AMD's got -- products are okay. And the reason for that is, in answer to your question, is because the nature of the Company has changed. We are not just based on GeForce anymore. We have Quadro and Tesla in there. And those are both very high-margin businesses, 70 point plus businesses.

And also as the PC market evolves, you're seeing the traditional low-margin business get weaker. And the gaming business, especially RTPC, you know the concept we talked about where there's a better -- a more insightful way to look at the PC market

is to separate specialty PCs from general-purpose PCs. And what we mean by that is a specialty PC is a device that someone buys for a very specific reason. Now, that reason might be gaming or it might be industrial design for Quadro or it might be research and simulation for Tesla. But they have a specific reason to go out and buy a PC, whereas the broader part of the market is, like, general-purpose. So I do a bit of email, I do a bit of web surfing, I check my Facebook page. And that's the bit of the market that's really in trouble. That's the bit of the market that gets cannibalized by tablets. And so people look at the whole market as a whole and say, well the PC market is not doing very well, how can you possibly do well. And the answer is, well we have this gaming niche carved out for us that's extremely profitable. Well up at sort of corporate average profitability for that niche. And that niche grows about 10% a year. And apparently, independently of the rest of the PC market's travails. So that's the main reason behind it. And Quadro is now a significant business. Tesla had a marvelous quarter as well. And I think the most telling part of Tesla's results this quarter is where the revenue came from.

So internal revenue is just a shade short of its record course (inaudible). But the revenue came from OEM business. So where an OEM was setting a cart on to someone else rather than big wings. Like, the last record quarter we had -- for the record quarter we had for Tesla was when we built the world's first powerful supercomputer, which necessarily has a favorable impact on your revenue. This time, it's that baseload. It's that run rate business. And this is -- I really feel that Tesla is reaching that tipping point that we always hoped it would reach, where there are enough applications out there now that are supported by Tesla.

So that scientists and engineers, they are -- (forming) a weather simulation, where they are specifying a new machine for weather simulation, say. And they know that they want GPU acceleration because that's already supported by the software. And so this is great news for us because it's a much lower touch business in the sense that it goes through the OEMs, as opposed to the Oak Ridge National labs engagement, which of course everyone in the Company was on fire drills for months on that. Which is great because it's tens of millions of dollars of business. But we can't scale the business that way. Whereas now with this run rate business, we can scale the business. And so that is a steady dependable base that will keep growing.

So those are the main levers that move the margins. Second part of your question was can they be maintained. It's hard to see why they wouldn't be. The drag on margins, if you like, is Tegra. Now, Tegra -- the Tegra chip business is only slightly below corporate. It is below corporate gross margins. But it's not that far below. So it's not a huge drag. And so as we grow that, it will be a drag on margins. But at the same time, desktop GPU is growing, Tesla is growing, Quadro is growing. So those sort of -- it all balances out, basically. And it looks like margins will be fairly stable, I think. You know, 56 points of margin.

Mike McConnell {BIO 4740633 <GO>}

The only thing I think about on the cost side is you've switched your model and how you source your wafers at TSMC from. Now more on a wafer-by basis as opposed to on a per-die basis. Which, when you have a new product, you eat a lot more costs

out of the gate early. But then you're favorably getting higher margins towards the end of that product lifecycle. So with Kepler, kind of on a second year now shipment. Next year, if you get (multiple speakers) --

Chris Evenden {BIO 18934997 <GO>}

It ought to be as profitable as it ever gets is what you're saying?

Mike McConnell {BIO 4740633 <GO>}

I'm not saying that. But just do we have anything next year to think about it as you transition away from Kepler to Maxwell? And is that going to be something we have to kind of think about with models and stuff like that?

Chris Evenden {BIO 18934997 <GO>}

Well I think the first thing to bear in mind that TSMC knows how much money it wants to get from a wafer, regardless of how it charges for it. And now, clearly, there is a changing risk assumption upfront. They used to have more of the risk; now we have the risk.

By the way, the whole industry operates on wafer (multiple speakers). We were certainly an outlier in that. And that was a -- it was a special case around 28. And we all know what the transition to 28 was like.

So 40 -- transition to 40. So that's changed. Now we are aligned with the rest of the industry. We have -- and after the 40 (nanometer) transition, we put in a whole new team to help us move to new process nodes. And so we worked very, very closely with TSMC on that. Some I'm not seeing huge costs risk there. Moving to Maxwell, we definitely got the die size performance per millimeter squared religion with Kepler. We'd lost focus on that a bit with the previous-generation products. But we fixed that. Maxwell -- I mean, you better believe is very focused on the same thing. Performance per millimeter squared and performance per watt, those are the key metrics that we evaluate as products. So yes, I don't see that being (multiple speakers) danger.

Mike McConnell {BIO 4740633 <GO>}

Understood. Any questions from the audience? I've got several to keep going.

One thing that we also look at if we wanted to stay on the graphics side first before transitioning to some other parts of the model. Your unit share is about at an all-time high versus AMD. Where do you see opportunity to take more share in that traditional GeForce business? And if that doesn't happen, what are the initiatives that you feel like will be on the peripheral that really can move the model probably the fastest? And to what extent X -- maybe Tegra, which is kind of obvious with growth prospects there? Or is this as (TAM)?

Chris Evenden {BIO 18934997 <GO>}

It's a good question. AMD has been, I think, as aggressive as they know how recently in terms of trying to win share back from us. They've had their tremendously expensive software bundling program, where I think they've had five or six games that they offer for free with their high-end part. Three or four for the midrange stuff. Then it's like, $100, $200, $300 worth of software face value. And yet they hardly begun to move the needle on market share. So we're certainly pretty confident of maintaining the level that we have.

In terms of gaining share, honestly, this year I don't see share changing much one way or the other. There is no major discontinuity that would cause it to do that. Going forward, we continue to try and build a very strong gaming ecosystem around our products. So working with developers to ensure they have the best performance in our hardware; the most reliable, the most dependable performance in our hardware. That they have the latest features and their games stand out visually from the competition.

Then features like GeForce experience, which helps our users -- that's a software tool that our users can download. It's been downloaded over seven million times already. And that automatically sets gaining settings for you and does a bunch of other things as well that will help with user experience. And all of this builds a tighter link to our customers. And there's quite a lot of customer loyalty in that space.

Mike McConnell {BIO 4740633 <GO>}

And you've got group (inaudible) too.

Chris Evenden {BIO 18934997 <GO>}

And that's part of it, yes. Part of it is being dependable and having best performance.

Mike McConnell {BIO 4740633 <GO>}

Okay. Attach rates. So one thing I think about that's going to be changing with Intel, obviously, is going to be adding new functionality. Performance characteristics with their Atom core, which maybe they had held back on in the past, added the challenges from ARM starting to increase. If we do see a situation where Bay Trail starts to occupy more SKUs in the overall mobile computing market, is that a risk to, do you believe, to graphics attach rates? Or is that something where you're not participating there anyhow. And it's not -- you're going to be still occupying that high-end. And it doesn't matter what happens? What do you think about that scenario?

Chris Evenden {BIO 18934997 <GO>}

I think the latter is true. But let me expand on that. Again, if we go back to this general-purpose PC versus specialty PC model, the people who buy a speciality PC buy discrete graphics. Integrated just isn't good enough for a gamer. I mean, sure, integrated graphics will get -- will be good enough to play last year's game at low resolution with all the optional settings set to zero. But it's never going to be good enough for the latest games. So let's take that off the table for the moment.

Now, if you look at the remainder of the market, this general-purpose PC, now, we do sell into that market almost entirely through notebooks. And in that scenario, notebook OEMs are looking to differentiate their PCs. So they have a $400 notebook, they have a $500 notebook. How do they justify to the consumer to spend the extra $100? And the answer is sometimes (Ko-I 3), (Ko-I 5), (Ko-I 7), climbing up that ladder. And the answer sometimes is no graphics versus discrete graphics. And it's -- those consumers tend not to be focused on graphics performance. So they are not buying our -- they're buying it because it's good discrete graphics, which is better. That's as probably as far as the thought process goes in the buying process. So when Intel comes back with better graphics performance, they're missing the point about what's driving that market. Graphics performance does not drive that market.

Now, Bay Trail is an interesting device. It's never going to be a gaming PC. It doesn't have the performance for it. So it could only compete in that market. Bay Trail with discrete graphics is a really interesting proposition because it has good enough CPU performance for most applications. Put a discrete graphics chip in there. And you come back to the idea we talked about a few years ago, the optimized PC, where you balance the investment in the GPU and CPU appropriately so you get a good gaming machine for a much lower cost.

So I honestly don't see it affecting attach rate one way or the other. You could argue it both ways.

Mike McConnell {BIO 4740633 <GO>}

Right, right. I guess it is conceivable because you're going to get a (inaudible) on Atom and then they use that money to support something else.

Chris Evenden {BIO 18934997 <GO>}

If you are saving -- what are you saving $40 and $5 by going to Bay Trail from a core? You can get most graphic cards for that much.

Mike McConnell {BIO 4740633 <GO>}

Okay. And when you look out at the design wins in the back half of the year, are you seeing more SKUs kind of going towards Bay Trail than what you've seen in the past? Or how does that look at this point?

Chris Evenden {BIO 18934997 <GO>}

I wouldn't want to anticipate where that's going to go. I'll wait until we get will wait until we get a bit closer.

Mike McConnell {BIO 4740633 <GO>}

No, fair enough, fair enough. I've got to ask that.

Chris Evenden {BIO 18934997 <GO>}

I'm not at demure. So that's fine.

Mike McConnell {BIO 4740633 <GO>}

Any questions?

Chris Evenden {BIO 18934997 <GO>}

We've got one question here.

Unidentified Participant

(inaudible; mic inaccessible). I was just wondering how you guys see that in the (PCDs). Is there a risk potentially that with the explosion of (inaudible), potentially more and more developers will start dedicating more and more of their resources to gaming on tablets and phones at the risk of (inaudible) development?

Chris Evenden {BIO 18934997 <GO>}

So we -- there is a survey of gamers at GDC -- game developers at GDC which was like a month, two months before (E3). And 48% of the developers said they were developing on PC. 55% said they were developing on mobile. 11% said they are developing on next-generation console. So I would say that open gaming, mobile and PC, are the growth areas. That's where the innovation is happening. That's where the excitement is. To have such a low number developing for next-generation consoles just before the next generation console comes out is extraordinary to me.

Unidentified Participant

(inaudible; mic inaccessible)

Chris Evenden {BIO 18934997 <GO>}

Yes. That doesn't look like it's a success. Now, it's too early to say whether it's just that that failed or the whether the whole console generation has failed. But the numbers I've seen for market sizes suggest that PC gaming in 2015 will be a $20 billion business. And both PlayStations together will be half that, ($10 billion); and both Xboxes together will be half that again, only ($5 billion).

The thing about PC gaming is that so little of the revenue goes through package software sales. So it's very easy to walk into Game Stop and think, well PC gaming is dead. It's something like 80% of the software revenues now are directly online, whether you're buying the game online, whether you're subscribing to the game online, whether you're getting the game for free in its in-game app processes, or whether it's as ad-supported, or whatever the mechanism is. But only 20% of that is packaged revenue -- packaged software revenues now. So the PC gaming market is vibrant and extremely healthy. And it's a large part of the success we've shown in margins and so forth in the last couple of years.

Is there pressure from mobile? I guess there is in the sense that -- but I think there's also synergy there as well. And we are certainly -- and those seem to be -- it seems to be the consoles that are suffering from that pressure, not the PC. And we've come up with a bunch of -- with a gaming strategy that allows us to build synergy between a strong -- I was going to say (redoubt). But that's probably too poetic. This fortress we have in PC gaming -- and we can build some synergies there to actually translate that into success in mobile gaming as well. The Shield device, for example, streams games from a PC. Someday it will be a great grid climb. And all these things will allow us to build a similarly strong fortress -- defensible, profitable fortress for Tegra business in mobile.

Mike McConnell {BIO 4740633 <GO>}

Moving to OpEx. I always run into this comment from (Jensen) saying, I don't believe the Company has an OpEx problem, we've got a revenue problem. That being said, though, I believe 45% of Company revenue right now is in OpEx. So that's a percentage of rev. So when do we -- or if -- are there any plans or any type of relief here with OpEx going forward? Or is the Company still in investment mode or -- because there is a lot of leverage to be had in the model, if you do choose to rationalize OpEx even to a slight extent.

Chris Evenden {BIO 18934997 <GO>}

I think Karen and Jensen were pretty clear about that on the earnings call. We think we'll hit somewhere close to $1.6 billion, which is a non-GAAP, which is our target for the year. We won't be ($1.600 billion). But we'll be close enough so we can claim with a straight face that we hit the target, right? So that means that we have no plans to make cuts in OpEx between now and the end of the year.

Further on, we still think there's a lot to be won in Tegra. So I don't think we are at the point where we want to seriously consider endangering those future revenues by not investing appropriately now. So no plans to yet because we still believe in Tegra. If you look at where we are with Tegra -- so Tegra is revenue-challenged this year. There's no doubt about it. There's a lot of reasons for that, primarily there was this failure of this one ecosystem Jensen alluded to on the call.

And Tegra 4 was late. Which we made a difficult decision. But a conscious decision, to delay Tegra 4 so we could bring in Tegra 5 and Tegra 4i. And those products are on track and on schedule. We demonstrated Logan, which probably will become

Tegra 5. We demonstrated Logan at SIGGRAPH last month. And we showed what a game changer it was in terms of graphics performance and how that can -- it's a real discontinuity in mobile gaming and mobile AP.

All these things are ready the beginning of next year. So to your -- there's a lot of leverage from the topline as well. If we can grow the topline from the beginning of next year, then we are in a good place as well.

Mike McConnell {BIO 4740633 <GO>}

And what is that, though -- how important is getting LTE working, good so again, or can you still win with just the AP anymore? Or do you have to have LTE? What importance should (multiple speakers) --

Chris Evenden {BIO 18934997 <GO>}

I think LTE is pretty important. You know, we're going through qualification with discrete mode in the i500 and with our integrated part Tegra IVi. Qualification is going according to plan, it's progressing quite nicely. There's nothing really to report until we've actually been certified. But that's going fine. So you may actually see i500 devices in the back half of this year. Tegra 4i is certainly next year because that's simply how long these products take to come to market. So they'll be ready. And I think what people sometimes miss is that we had a great year last year in Tegra, some $160 million, without a modem. And if you think about where we competed in the high-end last year, that was a tremendous headwind. Right? The fact that the only company that you could buy an LTE modem from was Tegra's top competitor .

It's a miracle we made any business at all last year. Unless we really do have something special, which we believe we do with the Tegra (space).

Mike McConnell {BIO 4740633 <GO>}

But going forward, though, it's going to be watching LTE quite closely, though. That's going to be a pretty much a mandatory checklist for (inaudible)?

Chris Evenden {BIO 18934997 <GO>}

I don't know about mandatory because there will be non-cellular connected tablets and devices. So there, you put a Wi-Fi combo chip in there. But it certainly -- I think that cellular conductivity is going to certainly increase, especially now that the carriers that are coming up with more reasonable pricing plans where you don't have to pay twice. Or pay extra for every extra device.

Mike McConnell {BIO 4740633 <GO>}

Any other questions? Well we need to obviously discuss the licensing deals, the big change in the Company's strategy. And so maybe you can give us, if there is any

update on when you think the first licensees will be announced. And when we could start to see royalties and what type of customers you're going after. All that fun stuff.

Chris Evenden {BIO 18934997 <GO>}

So it's -- there are parts of the market that aren't accessible to Tegra. And whether that's because it's a vertically integrated OEM or whether it's a market area that we just don't have the resources to go into. They're inaccessible to Tegra chip. And so, how can we monetize our IP into those markets? And the answer is by licensing it to people who do build those chips. Smart TVs might be another one. It's a market we've looked at on and off over the last few years. And we decided it's not big enough for us to go to directly. But on the other hand, if we can come up with a really good chip and enable someone else to go after that market, fantastic.

So it would be lovely to get one of the large vertically integrated OEMs and then to (inaudible) new markets as well. So it's just another way of monetizing Tegra in that regard. Now, timeline, it's a little way out there. Because if you think -- so someone wants to license our call today. They would start building a chip. They would then have to bring that chip to -- they would have to put that chip in a device and bring that device to market. So there's really 18 months? Two years, probably? Something like that. I mean, you know -- so it's a way out there. But it's a long-term strategy unless we find someone. That's the main thrust of the licensing agreement. The other thrust is to find people that infringe our patents and take a closer look at that. That would start generating -- that could start generating revenue rather more quickly. But those are the things we can announce when we announce. And not before.

Mike McConnell {BIO 4740633 <GO>}

I've also been getting these questions more and more lately about the Intel royalty (screen), which is quite sizable if you look at earnings contribution each year. What's the confidence that after 2016 that gets renewed? Or have you guys thought about that or started talking about that? Or how should we think about that?

Chris Evenden {BIO 18934997 <GO>}

It's difficult to predict because it does -- there'll be some legal -- there'll be some sort of negotiation conducted through lawyers, probably, in 2015. To take a step back and explain what a cross-licensing deal is. A cross-licensing deal at its core is an agreement not to sue each other. So the understanding is that we've got a whole bunch of clever engineers working on advanced processor technologies. Intel has got a whole bunch of clever engineers working on advanced processor technologies. It's pretty inevitable at some point that they're going to come up with the same idea. And you don't want to be constantly looking over your shoulder worrying that you've infringed somebody else's patent rights. And so what you do is you enter into a cross-licensing deal. And the reason Intel ends up paying us -- we actually pay them as well. But a lot less. It's about (66) one direction, (6) in the other direction per quarter. The reason they end up paying us is because they have a lot more revenue at risk of patent litigation than we do. So if there's a stop-ship on

Intel's products, that could cost them $55 billion a year, as opposed to the $4 billion year it would cost us.

So that's why you get into this. And this, the patent -- I know we are running low on time. So I'll be quick. The agreement dates back to 2004, when we entered into a cross-license with them in exchange for the right to build chipsets. Intel then reneged on that with us because we would see it. They reneged on that agreement. So we took them to court and they end up paying us for the same right in the chipset.

Now, going forward to 2016 when the agreement ends, we'll still have a bunch of engineers working on patents, they'll also a bunch of engineers working on patents. There's still a danger we'll be treading on each other's toes. So it it's -- never predict anything. You can't predict anything in the core (inaudible) better.

Mike McConnell {BIO 4740633 <GO>}

Probability's high? You think so?

Chris Evenden {BIO 18934997 <GO>}

We'll see.

Mike McConnell {BIO 4740633 <GO>}

Okay, okay. I think that's all we have time for. But thank you very much, Chris. Appreciate it.

Chris Evenden {BIO 18934997 <GO>}

Thanks, Mike.