Pacific Crest Global Technology Leadership Forum

Company Participants

- Chris Evenden, IR

Other Participants

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

Presentation

Mike McConnell {BIO 4740633 <GO>}

Okay. Great. Well thank you for joining us this afternoon. My name is Mike McConnell. I'm the Lead Semiconductor Analyst at Pacific Crest. We're very pleased this afternoon to have Chris Evenden, Investor Relations at NVIDIA, representing the Company.

As usual, I'll kick it off with some Q&A. But we always encourage audience participation to hopefully hit the key topics that your interested in. And with that, let's get started.

So Chris, maybe we can talk a little bit about company gross margins. If I think about, in my opinion, the two drivers behind the stock performance over the last year, one has been definitely gross margin expansion. And we're now close if not already at a record high.

Can you kind of talk about the reasons driving the margin expansion and I think, from here, how sustainable you think it is and if there's an opportunity for even higher gross margins from here?

Chris Evenden {BIO 18934997 <GO>}

Yes. That's a good question. We are at a record -- Q2 is a record high by a significant margin. And Q2 did come in higher than we anticipated for a couple of reasons. Tesla had a storming quarter. And Tegra was a bit lighter than we expected. And so, combined, it gives us a very high Q2.

But even broader picture, we're a lot higher than -- we've been growing gross margins steadily for two years now I think and all the way up into the mid; to high 50s, which is a good place to be. It's mix, right? And it's also the transition of our business from being components, chips, to being more of a platform business.

So if you look at the value we add in each of our markets, the value is a lot more than just a chip. In fact, for GeForce, for Quadro, for Tesla. And for GRID, physically, it's the same piece of silicon. And the only thing that's different is the software and the ecosystem we build around that.

So you produce some really high-performing, high-quality 3D drivers. And you've got GeForce. You've got the gaming GPU for consumers.

You optimize for professional applications. And you do shedloads of capability testing and stability testing. And you've got Quadro, which is dominant market share in the workstation space.

You build a CUDA ecosystem, a parallel programming ecosystem. You arrange for universities to train tens of thousands of people to program parallel code on your hardware. And you've got Tesla.

And so, these really are platforms now. We actually have more software engineers than hardware engineers. And I think that's key to the value. That's why the margins have been going up so much. And that's why we've been able to grow the high-margin businesses, particularly Quadro and Tesla. And GRID I refer to as an option on growth because it looks like it's going to be a great business. It's just I don't have any proof points yet because we're at the trial stage still.

Mike McConnell {BIO 4740633 <GO>}

The trials are moving up nicely.

Chris Evenden {BIO 18934997 <GO>}

Trials are moving up extremely nicely Q on Q every quarter for the last year or so. Then one of the things I talked about on the earnings call this year, we build this GRID test drive, which allows you to just log into our Website and just try out GRID because one of the challenges people have, IT departments have in evaluating virtual desktop infrastructure is, to evaluate it, you pretty much have to build one. And that's actually a lot of work and is very expensive.

And so, if we can just show you that actually we can give you a very good user experience, we can support applications that you didn't think were supported by virtual desktop infrastructure. And you can just go and see that for yourself with your own eyes, then that should really encourage you to take it to the next stage and actually start thinking about pilot projects because that's a big first hump to get people over.

And so, we had -- in the first eight weeks of operation, there were over 10,000 people that tried it out. So there seems to be some really interesting demand there.

Mike McConnell {BIO 4740633 <GO>}

Yes. That's great. And looking at I think the other thing, in my opinion, which has been the shareholder returns, that program has been very well received from your investor base. We're about a little over halfway through this last -- the second tranche of this $1 billion. And I think, if you look at your domestic cash position, it's a little bit less than 50% of your net cash.

So can you kind of talk about the comfort level maybe going forward after we get through this second tranche about what the Company's thinking about continuing investor returns or shareholder returns? And can you keep up this pace I guess do you think?

Chris Evenden {BIO 18934997 <GO>}

So I don't want to commit to anything for next year. So last year, we gave back $1 billion, just over $1 billion actually. This year, we said we intend to give back $1 billion. We -- so, if you do the math, dividends come to about $190 million. We've already done a $500 million -- executed a $500 million ASR that finished in June. So that leaves you $310 million presumably to repurchase presumably. So that's the rest of this year.

We do generate most of our cash offshore. Before -- we haven't actually given a split recently. But you can probably do the math. Let me see what we have said publicly. We've said publicly that it was 80/20 offshore/onshore before the convert. And that gave us $1.5 billion of US cash when we issued that. So -- actually a net of -- a bit less than $1.5 billion. So that's where we are.

So going forward, we have lots of options. We're still a very strong generator of cash. Clearly, we'd rather not pay 35% just to bring it back to this country. And so, there's always the hope that that will change. But then just being in such a strong cash position means we do have plenty of options going forward.

Mike McConnell {BIO 4740633 <GO>}

Okay. So fair to say management's still very committed to the shareholder returns. I'm not saying --.

Chris Evenden {BIO 18934997 <GO>}

-- Yes, I don't want to make any promises for next year. But certainly, I would speak to the last -- $2 billion in two years is quite a lot of return, right?

Mike McConnell {BIO 4740633 <GO>}

Yes. It's been very well received. Okay. Great. So if we look at I guess the near term, there are a lot of things kind of around the Company that -- whether it was some commentary from your competition, your foundry, some other things from the supply chain. You guys had a great quarter, knocked it out of the park with guidance.

I guess, where did -- and including myself, where did we get things wrong? And what were we missing that's maybe putting NVIDIA separate from some of the other things that we were pointing to or concerned about going into kind of the the near-term environment?

Chris Evenden {BIO 18934997 <GO>}

That's an interesting question because, quite honestly -- and I've been -- every time someone on your side of the fence raises doubts about the channel, I go back to my team and the business managers there and say: Tell me again about the channel. And I probe them quite closely because I want to make sure that I fully understand all the issues there. And we are, honestly, not seeing any issues in the channel at all.

So Q2 unfolded very much as we expected it to from a GeForce perspective. The -- so, we divide our GeForce business into gaming, which is the sort of high-value fewer-units side of the business. And OEM, which is the high-volume, low-value, low-gross-margin business that sells through HP, Dell. And Lenovo pretty much entirely.

And those businesses had the trajectories that we expected them to have. So the gaming business was off quite sharply in Q2 because you have a very strong Q4 on Western holidays basically. And you have a very strong Q1 on Eastern holidays, Chinese New Year. Then it fell off very strongly in Q2, as it always does.

And OEM, conversely, actually has a strong Q2 because there is a build for back to school in July, right? There's nothing at all happens in May and June. Then July is the back to school. And because of that nonlinearity of that quarter, that's why you see an AR spike as well that you have point -- you raised in one of your reports. That's why you see an AR spike in Q2 as well. You saw an AR spike last Q2 because it's our least linear quarter by a significant margin.

Mike McConnell {BIO 4740633 <GO>}

You do, what, 60% of your sales --?

Chris Evenden {BIO 18934997 <GO>}

-- That's not typical. But it's been as much as that. It's been very, very high in the past. So that's the dynamics.

Now -- so, maybe you were seeing the fall off in gaming in Q2. But that was a fall off that we'd already factored in, right? That was understood.

The talk about inventory, we're not having any inventory problems in the channel. Now, our competitor may be having inventory problems. That's better question for them. Could that inventory affect us should it exist? So intuitively, you'd expect, right, at some point, they just reduce the price until it all shifts.

Now, the trouble with that is that you screw up your channel. And you mess up future sales because it's very difficult to go back to the channel then and sell something at full price because they're going to try and wait two weeks just to see what happens, right?

So you've got to be careful about -- you can't reduce prices willy-nilly. If they have excess inventory, they've had that since April, right, because the cryptocurrency mining, that fell off a cliff mid-March, right? And so -- for two reasons, right? One, the cost of the coins went down. And two, ASICs came in the market that could mine them. So it literally switched off. So that's been around for a while, right? And it certainly didn't affect our Q2.

Mike McConnell {BIO 4740633 <GO>}

Well you don't participate in that market anyway, right?

Chris Evenden {BIO 18934997 <GO>}

No. But, I'm saying that AMD's excess inventory didn't have any apparent effect on us. So it doesn't seem to be affecting us that way.

Now, year on year, the dynamics are interesting because, if you look at this Q2 compared to last Q2, a -- by the way, this is a record Second Quarter. It's our best Second Quarter ever. But if you look at the year-on-year dynamics, PC gaming is up. And PC OEM is down. And I think that's indicative of the true long-term trends in those two segments.

So PC gaming we estimate to be growing 10% a year or so as a market. And OEM is weak. And I think it's probably going to be a long-term weakness. And that's driven by a couple of things, principally by the fact that consumer notebook market as a whole is weak, right?

And so, we -- that's our only exposure to the consumer mainstream is through our OEM graphics market. And that generate -- although it generates a lot of units. So you'll see it in market share numbers. And you'll see it in attach rate numbers, it doesn't generate much revenue. And it generates even less profit because the ASPs are low. And the GMs are low as well.

Mike McConnell {BIO 4740633 <GO>}

And so, when we think -- when we hear, like, Intel talking about consumer and emerging markets still being difficult, we should be careful because that's mostly OEM. IS that --?

Chris Evenden {BIO 18934997 <GO>}

-- I imagine that's what they're talking about, yes. And it's -- because I don't think anyone would look at the PC market and say: Hi. there's a market I want to be a part of.

Mike McConnell {BIO 4740633 <GO>}

You guys are putting up pretty good results.

Chris Evenden {BIO 18934997 <GO>}

But -- exactly. But if you -- and that's my point. The PC gaming market is actually a really good market. It's really healthy. 67 million people play League of Legends every month, right? And you -- it regularly peaks over 7.5 million concurrent users.

The amount of prize money in the Dota 2 tournament, Defense of the Ancients tournament in Seattle last month was greater than the price purse in the British Open, right? They had over $10 million prize money. So there is -- it's a five -- it's a team game, five people on each team. Each team member took home $1 million. Then the others got less.

So 45 million people post clips to Twitch every month. It's very, very healthy. Then you've got all these great games coming out in the fall, Assassin's Creed, the latest Assassin's Creed, the latest Battlefield, the latest Call of Duty. There's a bunch of really good games coming out. And ultimately, it's games that drive the revenues.

Mike McConnell {BIO 4740633 <GO>}

And I think another surprise you had to the positive, right, last quarter was Tesla and Quadro. And so, with Tesla, I guess it used to be kind of a lumpier business. Are we kind of starting to now see -- and I know you've talked about this, a steadier OEM adoption now.

Chris Evenden {BIO 18934997 <GO>}

We're getting bigger lumps. We're getting bigger lumps.

Mike McConnell {BIO 4740633 <GO>}

Yes, (inaudible) problem.

Chris Evenden {BIO 18934997 <GO>}

It is.

Mike McConnell {BIO 4740633 <GO>}

But do -- can we carry this forward into the back half of the year at this new level, or is it tough to know?

Chris Evenden {BIO 18934997 <GO>}

So it's difficult for me to talk about Tesla because our customers are bit cagy about what they want us to say. So Tesla I think is -- Tesla's breakout year, if you like, was last year. That's when it really started zooming up. It grew 37% year on year, largely on the strength of our distribution channel effectively.

Anyone who's anyone in supercomputers is now selling Tesla as an off-the-shelf solution. So whether it's IBM or Cray or Supermicro or NEC, all those guys are there.

We had a very big strategic agreement with IBM, where they're actually looking to port some of their enterprise applications or their Hadoop analytics, big data analytics to Tesla. And that's hugely promising.

And also, the other big thing with IBM is they're going to put NVLink in Power V8 so we can build a really high-performance supercomputer with very fast data connection between the CPU and the GPU.

So there's a lot of business there. But that's -- the breakout last year was distribution and code porting. This year, the interesting thing that's driving -- accelerating growth, if you like, is these consumer Internet companies, these consumer service providers.

And they are looking particularly at image recognition and speech recognition. And it turns out that -- it's interesting, isn't it, that some of the things that our brain can do very easily, computers find very difficult.

And so, good speech recognition and good image recognition is computationally incredibly intensive. And so, they're using some very sophisticated machine-learning algorithms running on deep neural networks, which run on Tesla and to better serve you as more aligned with your interests. So it's (inaudible) amount of computer power just to give you better advertising.

Mike McConnell {BIO 4740633 <GO>}

Then did this all start to come in fruition last quarter?

Chris Evenden {BIO 18934997 <GO>}

We had a couple of big orders last quarter, yes.

Mike McConnell {BIO 4740633 <GO>}

Okay. That's great. Any questions in the audience?

Unidentified Participant

So we had Rich at -- CEO of Shazam, the keynote earlier on panel. And he brought up basically how they're using GPUs inside of the datacenter. Is that unique to just kind of that specific kind of Internet use case scenario, or is there -- are you seeing broader interest in Tesla in the traditional Internet Cloud space?

Chris Evenden {BIO 18934997 <GO>}

Well so, that's not speech recognition. But it's akin to. Like, pattern recognition and massive datasets is I suppose perhaps a broader way of putting it. So Shazam is one great example. And that's a customer I'm actually allowed to talk about.

Netflix has published some research on how they're using NVIDIA as well. But they haven't given much detail beyond that.

But more generally, I was talking about ads. And so, look. So, this is an example. So let me -- I want to give a clear example without implying that anyone's a customer or not a customer. But imagine you post on your social networking site, you post pictures of your new dog, right? Now, if that social networking company was able to recognize that that was a dog in that photograph, it would then start selling that information to dog food advertisers, who would then buy ads on your page, right, because they're targeting (inaudible).

Or, maybe you could recognize pictures of babies and advertise diapers and so on. And that's a difficult task, recognizing a baby. It's difficult enough to recognize a face.

So there's a lot of value in being able to tag photos appropriately, for example. And so, that's one -- another example.

Voice recognition, driving user interfaces by voice is another one that requires a surprising amount of compute power, particularly at the training stage when they're learn -- when you're training the algorithm to recognize words correctly. So Shazam is a great example. And I like it because I can talk about it. But there are plenty of others out there as well.

Unidentified Participant

Because that -- Tesla HPC is what % (inaudible) versus kind of now kind of non-HPC type --?

Chris Evenden {BIO 18934997 <GO>}

-- So we haven't given that breakdown. And the trouble is that, like, it's -- even if I gave you what it was for Q2, that might not be a useful answer because we had some big wins in consumer Internet in Q2, which might distort it. And if I gave it to

you for the year, consumer Internet is new. So that would understate. So I can't give you a useful answer now.

Mike McConnell {BIO 4740633 <GO>}

We estimate Tesla was about $50 million a quarter but had a nice jump last quarter.

Chris Evenden {BIO 18934997 <GO>}

Yes. As Tesla as a whole, separate of the whole. But that's right -- that's in the ballpark. I was -- but breaking it down into consumer Internet versus HPC is not --.

Mike McConnell {BIO 4740633 <GO>}

-- My words.

Chris Evenden {BIO 18934997 <GO>}

Yes. That's good. That's good.

Mike McConnell {BIO 4740633 <GO>}

Let's talk about mobile a little bit, right? So Analyst Day, lot of talk about the Company not -- Tegra, when we're talking about Tegra is all about automotive. And not a lot about tablets, not a lot about smartphones. People started reading through.

Can you kind of talk about the commitment to both tablets and smartphones longer term and what we should be thinking about that?

Chris Evenden {BIO 18934997 <GO>}

Sure. Well they're both still very interesting markets for us. We have acknowledged that we've withdrawn from the mainstream smartphone market. The mainstream smartphone market, frankly, commoditized faster than we thought it would. We thought there'd be a place for differentiated products within that marketplace. And there isn't really. The market competes on price and schedule, pricing, availability. And that's not a market that we'd ever want to compete on.

So we're still interested in high-end phones. And the ME3 is a good example of something that's driving revenue for us and tablets as well, the MePad. I suppose it's no coincidence that both of those was Yowme [ph] because Youme is an aggressive company focused on growth, focused on differentiation, finding a place for itself in the market.

And so, we can help them with that, whereas, if you're using the same off-the-shelf ARM core as everybody else and the same off-the-shelf graphics core as everybody

else, it's really hard to build a new chip or a new device that is actually any different to anybody else's.

So we're still focused on that. We're working really, really hard to build a gaming ecosystem on Android. We believe that -- this is 1.1 billion unit market this year, that there's going to be some segmentation on there, just like you've seen on the PC, right?

So the -- again, the PC market, broadly speaking, doesn't look like a good market. But gaming on the PC, great market. And I think you can make the same argument about mobile as well.

Broadly speaking, there are some big challenges in that market. But if you can have a gaming niche that is defensible, it's profitable. And it's something where you can really add some value. And you're not a components supplier again, right? You're a platform provider adding value far and above the value of the silicon that actually gets sold into the motherboard.

Mike McConnell {BIO 4740633 <GO>}

And spending on Tegra's about $400 million or so?

Chris Evenden {BIO 18934997 <GO>}

Yes. That's what we -- that's the number we gave you.

Mike McConnell {BIO 4740633 <GO>}

And you haven't split it out between automotive and the other?

Chris Evenden {BIO 18934997 <GO>}

No. We haven't (inaudible). Also, it gives us a nice solid base that's growing steadily. So that gives us the opportunity to keep working at building this gaming ecosystem because that's going to be hard, right? It doesn't happen overnight.

So we've built -- with Tegra K1, we've got a great chip that's capable of supporting the latest graphical APIs, right? We've ported a bunch of major game engines across.

So I suppose the one that people are most familiar with is Unreal Engine 4. That's the one that Google used at IO to demo its new Android. They have that amazing, incredibly high-fidelity demo. But we've ported Source across so you can see Half-Life 2 and Portal on Shield now. And we've ported Unity Engine 3, id Tech 5. And several other engines that I can't name off the top of my head.

And the thinking behind that is it makes it much less expensive for a game developer to port their game across to Android to Tegra. So it's a lower-risk proposition from their perspective. So you spend $60 million developing a title for PS4 and Xbox.

And so, then the incremental cost of bringing it to Android could be quite low and certainly low in the context of that original $60 million. I actually don't know what the number is. But it's relatively low because it's already running -- it's running on the Unreal Engine 4 on PS4.

So you just now need to run it on the Unreal Engine 4 on Android. So there's some tweaking you need to do. But it's at the level of tweaking rather than porting, right? It's not a rewrite. So that's our strategy. There's a chicken-and-egg issue to gaming on Android. And we're trying to prime the pump, if I can mix my metaphors. But to get that going.

Mike McConnell {BIO 4740633 <GO>}

Okay. Okay. Any questions in the audience? I think we have time for one or two more. Okay. I've got to ask a question. Intel licensing, will -- what are we supposed to think of their -- what's the probability you re-up [ph], or how's confidence?

Chris Evenden {BIO 18934997 <GO>}

So I'd love to be able to give you, like, a progress bar that says 68% complete, right? But it's not going to happen, right? It's either 0% or 100%. There's no in between on this. The Intel licensing. So, it's -- let me take a step back because there's a lot of misinformation around licensing.

So we have a cross-license with Intel. What that is, is an agreement not to sue each other. It's not like a recipe book full of clever ideas that they can use to build graphics. It just doesn't work that way. They don't get to see our patents until they're published, which is three years after they've been filed.

And all the engineers I've spoken to say: It doesn't happen. You're not sitting at the bench thinking: I have no problems with this memory interface. I'll go and see what NVIDIA has.

So it's just an agreement not to sue each other. It's recognition of the fact that we have thousands of engineers working on clever processor technologies. They have thousands or engineers working on clever processor technologies. You're going to overlap and invent the same thing at some point, don't want to sue each other.

The reason it's a net flow of cash to the smaller company is because the larger company has more revenue at risk from patent litigation, right? So that's what a cross license is. So actually, we pay them as well. We pay them $6 million for every $66 million they pay us. So that's the cross-licensing deal.

Now, that covers all the patents, their patents and our patents in perpetuity after March 31st, 2017. So as of April the 1st, 2017, we've got no patents that we can sue them on. However, we've still got 6,000 engineers working on technologies that are in the same area as Intel. So you would assume, eventually, that we're going to end up in the same situation.

And so, then it's a question of: Well will Intel want to wait until we take them to court? Should we think that's the right -- in three years' time when we've published a bunch of new patents that we think are strong? Or, will then think: Well hang on, our negotiation position is never going to be as strong as it is today April the 1st, 2017. Maybe I'll renegotiate for I hope a much better deal. And NVIDIA will get continuity revenues. We'll get a lower payment. Everyone's happy.

So there's that. But then that's just -- don't take that out of the context of the fact that we are working very closely with other companies to sign other licensing deals. And I think we'll see some success there in the next 2.5 years.

And meanwhile, we've got these very profitable growth businesses, Tesla and now GRID as well I think, that will also offset some of that as well. So it's -- there's lots of reasons not to think that the sky is falling out. There's lots of reasons to be positive.

As a whole, I would say, as you saw from the last few reports, not just Q2 actually. But the Company is firing on all cylinders, particularly all through the GPU businesses and then through automotive as well. Then there's some debate about mobile in Tegra. But I think we've explained our strategy there and why we're interested there.

So we've got like two minutes left, haven't we? So I think I'll use 30 seconds to say: PC gaming is really strong. And people want to compare us with someone. They compare us to AMD. And while, technically, we compete against them head to head in some markets, if you look at what actually drives our financial results, they're very different things.

Someone asked me this earlier today: Why aren't you doing -- why isn't your business behaving the same way as AMD's? It's like: Because we're driven by completely different dynamics, right? AMD's business is dominated by mainstream entry-level consumer PCs and consoles to some extent. Our business is dominated by high-end gaming PCs and workstation and supercomputing and a couple of other things as well, completely different business drivers.

And so, you can't extrapolate from one to the other. And so, it's frustrating when I see people trying to draw parallels there when none exist. It's a very small part of our business. The bit that is the OEM graphics is the only area of overlap. And that drives very little revenue and even less profit.

Mike McConnell {BIO 4740633 <GO>}

Thanks for the clarification. It's helpful. Thank you very much, Chris. Really appreciate your time.

Questions And Answers

Operator

There are no questions.