Wedbush Technology, Media, Telecommunication Management Access Conference

Company Participants

- Rob Csongor, VP, IR

Other Participants

- Betsy Van Hees, Analyst, Wedbush Securities

Presentation

Betsy Van Hees {BIO 6078412 <GO>}

Good morning, everyone. Thank you. So much for joining us here and on the webcast for day two of Wedbush's 2013 Transformational Technologies Conference. My name is Betsy Van Hees and I am the semiconductor analyst here at Wedbush Securities.

We are very happy to have Rob Csongor who has been traveling like a mad man. So we are very happy that he made the trip to this cold New York City to provide us with a presentation. That's going to be the format today. It's going to be about 20 minutes of presentation and about 10 minutes of Q&A.

So with that I am going to turn it over to Rob. Thank you, Rob.

Rob Csongor {BIO 3210739 <GO>}

Thanks, Betsy. Thanks for having me here. I'm going to take about 20 minutes. And I'll try to leave some time for questions. There's a lot going on at NVIDIA and I am going to try to cover at least the high points of interest right now and I think I will just -- I will start by kind of summarizing the past year and where we came from. As usual, please note our safe harbor.

So one of the things that I'd like to just start out with is the gain, set everyone's perspective on our last year started at this time because it kind of sets the stage and kind of lets you know how NVIDIA got through the last year but also how we're thinking going forward.

So at the beginning of last year, I think we started with a flood in Thailand. We had 28 nanometer supply issues with TSMC. We had our previous generation Fermi (part) instead of Kepler. The android market on the tablet side was in a fair amount of disarray. I don't think there were any tablets below $500. And I would say that last

year our position was that we had a Tegra 3 mobile processor that was the fastest mobile processor in the world. But we had no modem.

That was the beginning of how our year started. And at the time I think everyone went out of their way to point out all of the headwinds that were there in front of us going into this year. And when we said that -- we gave guidance and we said we would grow our Tegra business by at least 50% and that we would grow the GPU business and that we would grow our revenue and margins I don't think -- frankly, I don't think a lot of people believed us.

So in the context of that, we're especially very proud that we had the results that we did. Inarguably one of the toughest years in PC and an affirmative year for mobile, NVIDIA was able to post a record year. We did have record revenue. We generated record cash. We generated record gross margin. And as per the guidance we said that we would grow our Tegra business at least 50% and we did. And I don't think I know any business in tech that grew 50% last year. So we're very proud of all of those things, especially given the headwinds that we had.

In particular, I think one of the headwinds around NVIDIA is continues to be a conception that NVIDIA is a PC graphics company. So the PC market is declining and graphics has a fixed attach rate to that market then GPUs must be declining. Yet if you look at it, you see that that NVIDIA continues to buck the trend and drive. And the reason for that is that within the PC market, we do not address the entire PC market. We've given presentations previously where we show that that what NVIDIA really does is focus on 5% of the PC market. 5% of the PC market generates 75% of India's gross margins. That 5% consists of segments like PC gaming, workstations and high-performance computing. And those segments are highly robust and growing segment of the PC market as opposed to entry level PCs.

So if you look at the comparison of our revenue performance, for example, versus PC companies, you notice that while they all had a down year NVIDIA did not.

We've also been investing -- and we know that you know that there is new -- obviously, Tegra is a new business for us. We announced another GPU business recently called GRID. But one of the things that I want to point out, last year we also gave guidance that our OpEx would be at $1.4 billion non-GAAP. And we came in under that. We spent exactly what we said we'd spend.

If you look at our last four years, I think you will see that as a percentage of revenue NVIDIA has kept our OpEx as a percentage of revenue pretty flat, 31%, 31%, 31%, slightly up to 33%. But during that time we've driven the operating margin percentage from 8% four years ago to 20% this most recent year.

And of course, as part of that story the other thing we've been very successful in driving is a continuous growth in gross margins. So increasingly, every year again we always heard the same things. Integrated graphics is going to eat into your graphics business. ATI said they're going to do this. There is always some sort of headwind

every year and some sort of competitive pressure and some sort of market pressure. But I think hopefully what we're demonstrating and what these slides show you is that NVIDIA has a pretty good record of executing through headwinds and consistently driving the metrics of the business upwards. And we're not ashamed of it.

This is a chart that's of particular interest because I would say that one of the number one questions that I get is, especially for people who are not as familiar with NVIDIA, how is it possible for your GPU business to grow when the PC market is declining because if the PC market is declining and GPU attach rate is flat then I can do the math. By definition, GPUs must be declining. Yet this is the story.

Now the answer is that one of the reasons is we've been exiting a chipset business which was $1 billion chipset business and the GPU bucket that we reported included that chipset number. Now you could dig just a little bit to realize that that's what's happening. The chipset business is declining.

If you take out that chipset business, that's what MCP is, this is what you'll realize; a steady growth of GPU business consistently over the last four years. The other reasons of this growth are the reasons I mentioned earlier which is the segments that we focus on which are PC gaming, professional workstation and high-performance computing. All three of those segments are growth markets.

There is a fourth market we introduced this year which is called GRID which is GPUs going into a cloud server. This is a new business; it's based on work we've been doing for the last four years. And you're going to hear a lot more about that very shortly, in fact at the upcoming GPU Technology Conference in Santa Clara, California. This is our conference where we present it to researchers and developers. At GPU Technology Conference we're going to unveil a lot more about this business. But any case, this is probably one of the most important metrics to understand about NVIDIA, which is that our GPU business continues to be a growth business.

Then I think beyond the GPU business, a lot of people look at our new mobile business and I think the question they ask is how is it possible for NVIDIA to grow its mobile business in the face of Apple and Samsung taking a lot of the market and then whatever is left you're fighting against QUALCOMM. So we basically have had this headwind in it, in front of us since the beginning. Now the response again over the last four years has been this. So we grew our overall business. We obviously had much smaller business in FY10 and FY11. But we quickly grew to $360 million on just smartphones and tablets and then the way that we report our businesses now, Tegra is now over $700 million. So not just smartphones and tablets. But also automotive embedded and then we have other new things coming like special types of devices like a new product called Project SHIELD, which is a gaming device. So there's a lot -- you're going to see a lot more streams of Tegra revenue coming into the picture.

Last year I mentioned earlier that our position last year in Mobile was defined as, we have the fastest mobile processor in the world. And we have no modem, right,

fastest mobile processor and we have no bananas. This year we have the world's fastest mobile processor and we have two modems. So if you were to ask me what is the most exciting time at NVIDIA in recent history, I would say that right now we are about as excited as I can remember. We've been waiting for this moment for four years. We've been waiting for the opportunity to enter the connected devices market. And as a result of being able to do that, open up a whole new class of mobile devices that we can now sell into. So let me explain what's happening right now.

We have a new high-end apps processor called Tegra 4. It's a stand-alone apps processor like Tegra 3 and it is the new high standard for all of the tablets and super phones that are being built. What we have this year that we didn't have last year is now a very high speed, low power LTE modem called i500. So i500 is the little companionship that goes along with it.

The combination of these two parts allows us to address tablets and it allows us to address super phones. However, a new market that was not available to NVIDIA last year is now available to us. And that is what we call the mass market smart phone market. We were not able to address that market last year because in order to address that market you needed an integrated solution that combines the apps processor and the modem. We launched the new version, our first integrated LTE processor right before Mobile World Congress. That part is called Tegra 4i. And the code name for it, previously you may have heard the code name, it's called Grey. Tegra 4i is probably the most important engineering project and piece of work we've worked on in a long time. So this was something that we designed from the ground up to accomplish a couple of things.

First of all, it is targeted squarely at the smartphone segment. We didn't just developed the chip. We've built a phone ready to go. So when we walked into Mobile World Congress, we not only had the part and the benchmarks and the reference platforms, we had the phone all ready to go. So the phone that you saw running at Mobile World Congress as codenamed Phoenix and this is it and you can see the Tegra 4i part right in the middle of the phone over there.

I think Tegra 4i was just one of the best-kept secrets that NVIDIA has kept I think over the last two years. I think most people were just picturing that we are going to take an apps processor in a modem and just scotch tape them together and just ship it out and it just nothing could be further from the truth. Tegra 4i was architected from the get-go to just crush per per square millimeter.

Everything about the chip was designed to crush performance per square millimeters of a smartphone. So we started with a couple of things and just to tell you a little bit, I won't dive into too many of the details. But I just want you to understand the architectural design that went into creating this chip and how aggressively we're going after this segment of the market. We, created a brand new engine all right. And when I say engine, the CPU engine. We have a choice of lots of different engines that we can use from our quad-core A15s on the high end to our earlier generation quad-core A9s. What we did for the Tegra 4i is create a brand new

engine, which internally we call the R4. The R4 is a custom-developed Cortex-A9. We co-developed it with ARM. It souped up and clocked at 2.3 gigahertz.

We coupled that with the integrated i500 core that's LTE. We took Tegra 4's graphics engine, the GPU architecture engine instead of 72 cores, we used 60 core and again that's targeting the power envelope and the performance per square millimeter of a smartphone.

The four-plus-one battery saver core, which is our ability to run on a very -- on one core instead of running on all four, this is the capability that we have that our competition does not have. Then all of the other features of Tegra 4 like the photography engine which we call Chimera, the video engine all of these types of things, those are taken from the Tegra 4 architecture, which is our latest generation of apps processor. So this is very, very much a custom design targeted to go after that segment. Meanwhile Tegra 4 plus i500 goes after tablets and the super phones.

So just to give you a flavor, this is the world's first quad-core A15. A 15 is the new high-generation part from ARM. It is a 72 core GPU. This thing is -- I think the press called it a beast. This thing just crushed all the benchmark results on any other mobile processor if you read the reviews out of Mobile World Congress including QUALCOMM, including any of the other parts that were out there.

The performance out of Tegra 4 is roughly faster and we have some data on this. It's higher performance in 80% of the ultrabook PCs that ship today. So this is an extremely high-performance processor. And the tablets and devices that you see coming out this year on a Tegra 4 are just going to be stunning for a lot of people. I think when you see the type of responsiveness, snappiness everything from web browsing to the graphics on this is just going to be substantially better than anything you've seen last year. So we're very excited about all of these. And again, this product is coming at a time when I think the android market and the tablet market is projected to explode. So all the industry analysts are at this time projecting that tablets will overtake notebook PCs this year.

On the modem side, there is one substantial advantage that NVIDIA has architecturally with our modem. So we acquired a company called Icera two years ago and the technology that Icera has that we wanted is the ability to do a software-defined radio. In other words, what it means is that instead of building a chip by adding functionality and it gets bigger, we built a small very high-speed DSP core processor and then you load whatever algorithm you need to run.

So for example, if you want to ship into China you load HSPA+ and then ship it into China Unicom. You take that exact same core, you load LTE and now you ship it into AT&T in the United States. I'm using these as examples, right. So the die size of our modem is considerably smaller than the competition modem. And this is a substantial strategic weapon for us obviously.

The company that helps us do this and the company we acquired is Icera. I think a lot of people may say hey NVIDIA is doing their very first modem, what do they know about modems and qualifications. Icera actually knows a lot. Icera is already certified in 95 carriers in 65 countries. These guys have gone through this a ton. They know all about it. We've already certified about 100 million modems and that are out in production and being shipped today.

So what markets are we going after? With i500 in the modem. And I'm focusing on what's the new incremental market that is available to NVIDIA that was not available to us. So when I said that we had Tegra 3 last year and no bananas what I meant was that we did not and we're not able to go after this segment on the right. There is a 210 million unit market of LTE phones, smartphones priced at roughly 800 RMD, call it $100 to $200, $99 to $199. And that market is something that could not be served last year by just a stand-alone apps processor. So the product that we have now Tegra 4i has an opportunity to go after this segment of the market, of which NVIDIA owns zero today.

On the tablet market, this is a projection from Strategy Analytics, which is showing what they believe is going to be happening in the units for the tablet market. I think it's safe to say that most people believe that consumers at this point would prefer a great touch tablet over a cheap PC. And right now I think last year you saw a lot of people sit on the sidelines and watch. And in the android segment I would say you saw a few tablets shipped in any reasonable volume. I think this year will be very different. You're going to see a lot more tablets, a lot more flavors, you'll see tablets -- multiple SKUs of tablets coming from one vendor and everything is going to be better.

The android tablets will be better, the Windows RT tablets are going to be better this year, there'll be more apps and we see this market exploring.

And in particular, we also believe we see the China market the white box market as an opportunity for us. We believe the China white box market which currently pumps out tons and millions of very cheap tablets wants to move up. They want to move up and ship better tablets, just like they did long ago in the PC space. The Chinese market started with cheap PCs and then moved up and we're seeing the same thing with tablets. So we believe that's a market that we are going to address also.

Okay, to wrap up, I want to make sure I leave some time for Q&A. This is my last slide. Just to summarize what are the growth drivers for NVIDIA for fiscal year 2014. Again, we have two businesses GPUs and Tegras. Within the GPU segment, PC gaming is growing. We think that's going to drive our GPU business.

The Quadro market which was down for us last year due to softness in the market was actually a disappointment for us. We actually expected Quadro go up last year because we were going to (ramp) to Kepler into it. But it didn't happen. And the reason was that the Kepler launch, the Kepler refresh into Quadro market was delayed by the launch of the Romley platform from Intel. So we believe that this year

we're already seeing -- you may have seen that our Q4 revenue was up slightly which is a little unusual for Q4 for Quadro, what you're seeing is the beginning of that refresh starting to happen. So we think Quadro market is going to upgrade to Kepler this year. That will be good for us.

Tesla is growing. And we have a new cloud-based GPU business that I think a lot of people are excited about called GRID. I've been getting lots of questions from you guys on the GRID. I would urge you, if you can, to mark March 19 on your calendars. On March 19, we have the GPU Technology Conference. Our CEO Jen-Hsun is going to be giving the keynote. This is typically the conference -- this is our conference we present to researchers and developers and this is typically where we unveil a lot of things and we're going to talk a lot more about GRID at that time.

We're also going to have a special session right after the keynote Jen-Hsun is going to address the investment community. So I had sent out some details in an e-mail. But if anybody would like more information about how to plug in, either come to the conference or else just watch the webcast, let me know and we will hook you up, right. But you will learn a lot more about GRID there.

Okay, Tegra, tablet market is exploding. We have a Tegra 4 and we now have a modem. The smartphone market now opens up to NVIDIA. I would just round up whatever phone business we had last year, run it off to roughly zero and then I think this is now a new opportunity for us.

Then we have a new device, a gaming device that we launched at CES. This is a completely branded device targeting the open platform android gaming market and this is targeted at the android gaming market as well as the PC gamer market. You can stream a PC game from a PC in your bedroom to this device, play it. And then display it on the television. At this point right now, you can just call that a cherry on top, all right. So we're going to launch this product out there and you get a chance to see what it does. But right now you don't know too many of the business details about it.

Okay. So that's the summary of the growth drivers and sorry if I went a little too long. With that I'll open it up to questions.

Questions And Answers

Q - Betsy Van Hees {BIO 6078412 <GO>}

No, you didn't go too long. Thank you very much. That was a great presentation, Rob. We really appreciate it. And so I'm going to start with the cherry on top. I am going to start with Project Shield only because I of course was at the CES and I was at the press conference that you guys had and then came (inaudible) and then I got the opportunity to actually play with it, Project Shield. Yes, I got a private demo.

So I thought it was pretty cool myself, not being the gamer. But I had a hands on opportunity to play with that. It was very interesting. So the reviews from the gaming community have been very great, the reviews from the financial community hasn't been that great. So why are you guys so excited and think that this is going to (sell)?

A - Rob Csongor {BIO 3210739 <GO>}

That's a great question. Yes. The gaming community when they saw this device were extremely excited and if you go read the game reviews there they are quite ecstatic.

I can try to describe to you why the gamers are excited. I guess there is one thing I would describe, if you try to play; pick an Android game, any Android games that you can run theoretically on your android phone right now, like Madden, right Madden Football. Anybody here play Madden, just out of curiosity. Yes, (Cransten) I knew it. Okay. So if you play Madden, you're controlling your running back and your running and your thumb is rubbing on the glass. And underneath the glass there is a joystick kind of thing. You can't feel it. You just rub, you're rubbing your finger on the glass and then you're running and then all of a sudden your fingers slides off the controller because you can't feel it. And now you're running back, stops running and you get sacked and now you have to punt and your life sucks. So there is just that simple thing that you cannot feel any of those things has spun a huge aftermarket in the android gaming market.

If you guys went to CES and you walked around, you probably would have noticed booth after booth of contraptions that are designed to wrap around your phone with thumbscrews and wires that come out and this thing looks like an octopus. And all it does is give you the sting. And the thing frankly is a mess and then you go talk to the gamers who are using it. And they go this thing is awesome. They are just frustrated, they have all these games that they have purchased. But they can't really play them well, okay.

Now in addition to that, PC gamers would love to just sit in front of the TV and say I want to play Assassin's Creed. They press a button. They wirelessly connect to their PC and now they're playing on their TV screen. Now they're just excited about that alone.

Now if you're not a gamer and I think some of the skepticism in the Street is just the fact that I don't believe that the Street really understands gaming, the gaming market. But even then, one of the common things I've heard is, I don't get it, there is nothing on SHIELD that I can do that I can't do on the smartphone, not a single thing. There is not a single app that I can run on SHIELD that I can't run on this. And one of the things that we've done is we've pulled reviews of iPad from back in the day because that's exactly what the response to iPad was when it first came out. Of course the people who wrote those articles will deny it. But we know who they are, we saw it, it's written.

There is nothing that an iPad can do that an iPod Touch can't, literally not one single app, there is not one app you can run on an iPad that you can't run on your iPhone or your iPod Touch. All that the iPad does is make reading better because it's a

bigger screen. That's it. It's just a bigger screen and it makes reading easier. It makes interactivity easier. Think of SHIELD like that, all SHIELD does is make the number one app category on mobile devices better, it makes gaming better. And in addition, you can connect your PC and in addition, you'll be able to connect to the GRID interactive gaming thing later, okay. So other than that, I don't know what to say except you may want to try it and then ultimately we'll just see.

Q - Betsy Van Hees {BIO 6078412 <GO>}

No, as I said I had the opportunity at CES to have a private demo (inaudible) work there, as you know and you had already left so it was a great opportunity and I came away very, very impressed with Project SHIELD I have to say having initial response when I was there at the press conference, a little surprised. Other surprise is Jenson said we were all surprised. (inaudible) and I'm looking forward to getting a chance to some more time playing with it and so.

So anyway now I want to talk about Tegra 4. And this kind of wraps into the guidance that you guys gave. So you gave guidance and I know it wasn't awkward when I asked my question on the call. But when we look at the guidance and you guys work out for us how your core GPU business is going to do, it seems as if the Tegra business has taking a pretty big step function down in your guidance, if we were going to break out the seasonality. And I was wondering if you could kind of walk us through that. Is that -- because we're sort of having this low because Tegra 3 and now Tegra 4 is ramping. So then when are we going to see the revenue from Tegra 4 and that's it, my question.

A - Rob Csongor {BIO 3210739 <GO>}

Okay, yes and when you say the guidance you mean the Q1.

Q - Betsy Van Hees {BIO 6078412 <GO>}

Q1, correct.

A - Rob Csongor {BIO 3210739 <GO>}

Okay. Yes, basically our Q1 guidance reflected a couple of things. First of all, PC was down just seasonal. So all of the drop off that you saw was Tegra. And I think at this point, we've now gone through this three times. So last year people said, hey is this seasonal, because last year the same thing happened. We started the year with a drop off in revenue between Q4 and Q1 and so people said is this seasonal and at that time I said well I don't know, I don't know what seasonal as yet. So I think at this point, I'm going to call it seasonal.

Q - Betsy Van Hees {BIO 6078412 <GO>}

Okay.

A - Rob Csongor {BIO 3210739 <GO>}

What you're seeing is a Tegra business that is tablet-centric. The tablets are a one-year product cycle. The first half of the year is used for build and then with a launch in mid-year followed by a very sharp ramp culminating in Christmas and then a sharp ramp up after that.

Now as our Tegra business has grown, the volatility of that drop-off is a lot more in markets because you just -- it's bigger dollars. So what I hope -- and of course last year you saw a sharp drop off of Tegra and then we went on to grow our Tegra revenue by over 50% because of a very sharp ramp in the second half of the year.

Now, I'm not guiding Tegra and I am not saying we're going to do that this year. I'm just saying that you saw that kind of thing happen this year and we've already said that Tegra 4 devices start shipping in Q2, end of Q2. So you can expect to see devices coming out and then a similar type of ramp for the second half of the year.

Now going forward, if we start winning phones I think you'll see that revenue smooth out. I don't think you'll see as much dipping in everything around because the phones operate on a different life cycle and that will tend to smooth out our revenue volatility over time. Does that makes sense?

Q - Betsy Van Hees {BIO 6078412 <GO>}

Yes. Thanks very much for that explanation. It's helpful. There is definitely a greater sense of seasonality in business with the innovation of the tablet market. And speaking of the tablet market and moving to the PC market, I know you talked about PC gaming being a big driver for you guys. But in terms of integrated graphics and just the PC market in general, how are you guys seeing things here in calendar Q1 with PCs in general, PC demand?

A - Rob Csongor {BIO 3210739 <GO>}

So in general I think we're looking at -- and again the only reason I pause a little bit is when people ask what do you see happening in PCs, I just always caveat that, again, we focus on 5% of the PC market. So if you really want to understand how the bottom half of the or the bottom 65% of the PC market is then you should talk to Intel or AMD.

So within the segments that we target, PC gaming, we see as being very robust. We think Quadro has been flat and soft for last year. But now growing. The high-performance computing market, I think, is growing for us. Premium notebooks, we see declining. So we believe that -- I mean at least from what we can tell, we believe premium notebook PCs would be down mid-single digits from what we can tell. But some of that may be offset by the fact that NVIDIA will have a full year of relative high market share versus last year where we had only high market share for only half a year.

Q - Betsy Van Hees {BIO 6078412 <GO>}

All right. Well with that we're out of time. But Rob you have got a full schedule today. So for any questions, I think audience (inaudible) breakout session. So thank you very

much and we really appreciate you.

A - Rob Csongor {BIO 3210739 <GO>}

Okay. Thanks a lot, Betsy. Thank you, guys.