# BMO Capital Markets Technology & Digital Media Conference

# **Company Participants**

Colette Kress, EVP & CFO

# **Other Participants**

- Ambrish Srivastava, Analyst, BMO Capital Markets
- Unidentified Participant, Analyst, Unknown

#### **Presentation**

#### Ambrish Srivastava (BIO 4109276 <GO>)

Good morning, everybody. Welcome. My name is Ambrish for those who don't know me. I cover semis for BMO. And we have Colette from NVIDIA, the CFO.

Colette, thanks for joining us.

## **Colette Kress** {BIO 18297352 <GO>}

Thank you.

# Ambrish Srivastava {BIO 4109276 <GO>}

So the format is we're going to run -- I'm going to ask a bunch of questions and then we will pause and we'll open it up to the audience.

So before I go into my prepared questions, Colette, you've been with NVIDIA for a little over a year. So maybe we can start off by -- just give us a sense for -- NVIDIA is -- has been in a transformational phase for quite some time. Things seem to be accelerating towards that direction so maybe you could share your perspective on the underlying changes that the Company has been going through.

# **Colette Kress** {BIO 18297352 <GO>}

Sure. I think when you look back at NVIDIA over the last three, four years, a lot of it looked at -- was a chip company attached to the overall PCs. We saw this as a real opportunity to really expand our offerings and our offerings in very key platforms that we thought would be growth drivers for the overall future. One of those being the overall PC platform and the overall gaming platform and really taking a hold of we're not a general purpose chip for all PCs. We really think about the overall

ecosystem of PC gaming where we believe we have a very, very strong hold, a very strong presence around the world in terms of that PC gaming market and it's done very well for us.

And what that entailed is us being very close to that end customer, the end gamers around the world and how their experience has continued to be enhanced by the overall GPU experience. In their mind that is their underlying console for their gaming, that GPU that is incorporated within the PC.

Our second key transformation was really focusing also on taking what we had learned from the overall PC and the design to move to the data center and the cloud. Knowing that key important aspect of the cloud availability and providing an accelerated GPU for the data center, as well as a virtualized GPU for the data center, which we refer to as GRID.

Both of those movements have done very well for us as we've seen the continued growth in terms of GRID; GRID for the enterprise as well as GRID from consumer and consumer streaming gaming. And Tesla, the accelerated GPU in the data center, both associated with high-performance computing, parallel applications. But also very, very new industry in terms of machine learning, computer vision and the expansion of how the GPU has been able to help in those areas as well.

Our third key platform is our focus in terms of the mobility. Pretty much the connected device and really taking that presence of gaming as well that you see for a PC and understanding that the experience will continue to grow to a lot of the different mobile platforms. You've seen many tablets coming out, cell phones and other different types of devices really geared towards a great user ability to gaming. And also that visual computing which is so important.

Our last key presence and probably one of the most mobile types of platform being automobiles. We have a great stronghold on many different types of OEM manufacturers in the automobile business. We have more than 6 million cars on the road incorporating NVIDIA GPUs.

So it's been a great ride to really kind of watch this initial stages of the transformation. As we've -- so far this fiscal year, we're in our -- just finished our Third Quarter of our fiscal year 2015. Our top-line revenue growth of being over 15%. But the key thing is also a focus in terms of profitability. Our profit growth, whether you measure that by operating income, net income or diluted EPS is probably around 50% this year in terms of growth of our profitability.

# Ambrish Srivastava {BIO 4109276 <GO>}

Good. Good introduction. Let me just switch to something I'm sure that's closer to your heart, capital allocation. And also, if you don't mind starting off on sharing your perspective as a CFO. NVIDIA has done a pretty decent job in returning capital to shareholders and it started before you got there. But just help us understand how

you look at that and kind of some of the changes that you are trying to instill within the organization.

## **Colette Kress** {BIO 18297352 <GO>}

Sure. The Company restarted its overall capital return program probably about two years ago and initiated overall dividend for the very first time. And also started in fiscal year 2014 with \$1 billion of total capital return, as well as in fiscal year 2015 we're just rounding out the end of also returning yet another \$1 billion.

About a year ago we executed convertible debt for the main purpose of capital return. As we have talked about, a significant amount of our free cash flow is located from international operations. So we did have a significant amount of cash overseas and we are finding the most prudent way to get that back into the US so that we could return it to shareholders. We executed about \$1.5 billion of debt and we returned about \$1 billion of that in fiscal year 2015. And we just announced now our capital return program for fiscal year 2016. In fiscal year 2016 we'll return about \$600 million. So the remaining amount of that overall debt that we acquired at that time to return to shareholders.

So over the five-year period on average we're returning nearly the majority, almost all, of our free cash flow. When you think about how much of that is our US cash flow or US cash flow presence, it's more than definitely 100%.

We look at capital return as just one of the pillars of the overall shareholder value; really a concentration on the profitability, the overall growth on the top line, which is extremely important. But also balancing that with the dividend and the share repurchases. So it's all together in a bundle.

## Ambrish Srivastava (BIO 4109276 <GO>)

Okay. And one of the questions we get from investors. And I'm sure you get it as well. And we could transition into the whole patent litigation and the licensing issues. So maybe share with us a broader framework of how you think about that because there's many facets to it. There's the Intel cross-licensing agreement. Then there are URLs out there trying to get customers to, A, pay for what they have been using, what you claim is NVIDIA's IP. And then you're also trying to sign up customers for licensing. So how should we think about that?

# **Colette Kress** {BIO 18297352 <GO>}

Yes. So it's a good introduction that it is a holistic look at our overall IP strategy. So about a year and a half, the Company came forth and indicated our business strategy is to have an IP business.

Now, what is good or bad about an IP business is sometimes it takes an offensive or a litigation move to actually move forward on that. We've had the overall Intel license that we signed in 2011 and that will come to an end in our First Quarter of fiscal year

2018. It will be the last quarter in which we will recognize revenue. And we can think about where we want to go in terms of renewal on that or nonrenewal on that. It's still up in the air. We don't have anything that we are prepared at this time to announce.

But secondly, we had moved toward taking litigation actions against Samsung and Qualcomm regarding their overall mobile platforms. We have more than 7,000 patents in the GPU space that are being leveraged both across many different platforms from the PC, the data center and the mobile.

We are moving towards a date with the ITC for them to make a decision, which is about mid-June, mid to end of June, associated with that case. So an investigation was started with the ITC. And we used the ITD because it is a very efficient body in order for us to reach some type of third-party agreement regarding infringement. As possibly expected, Samsung has come back with litigation back to us and we continue to review those pieces as well.

But we know that it is soon that we will get a form of a ruling associated from the ITC and then we'll determine the next steps after that. But it's an important aspect after many years of kind of discussions that weren't necessarily moving forward. And this is where a third party may be necessarily to help us determine that true infringement between the companies.

But on this side we also talk about that we have many different other discussions occurring with companies both reaching out to us, us reaching out to them in terms of opportunities for IP licensing. Licensing forms of our core, core for Tegra or even core in terms of GPU where they may want to take that and build their own types of devices or own work, knowing that this is one of the top GPU platforms in the industry.

So more to come in terms of that because there's a lot of different moving parts right now going on our IP strategy. And we're pleased in terms of the momentum that we have moving at this time.

## Ambrish Srivastava {BIO 4109276 <GO>}

Okay. Just a clarification. The ITC ruling in June would be to determine whether there was infringement or not.

# **Colette Kress** {BIO 18297352 <GO>}

Right. That is just the hearing and then we'll hear shortly after that whether or not --how the courts have ruled in terms of that. But that's correct, it is only about infringement. Valuation will come at a later time.

# Ambrish Srivastava {BIO 4109276 <GO>}

Okay. Great. Thank you. Thanks for that.

And so maybe we can now move into the business and we can start with the GPU and maybe focus on the PC related. Your market share gains accelerated and with Maxwell came more share gains. So if we look at the roadmap and share gains within PCs, not just in the way we used to think of PCs or the OEMs, what's the right way to think about share gains? What's coming down the pipe?

And if you don't mind, also, one of the things that you started highlighting last year was how big gaming has become as a piece of the business. I think a year ago it was 39% was PC OEMs and now that's down to 25%. So in the context of the PC side, help us understand what's going on in the underlying business with how important gaming has become.

#### **Colette Kress** {BIO 18297352 <GO>}

Okay. So let me kind of break this down on our overall GPU business. Our GPU business can be broken down into our GeForce business, which is our desktops and notebooks for overall PC use, whether that be a mobile PC or just a regular PC. Then our overall Tesla business, our GRID business and also our Quadro business.

What are we referring to in terms of our overall GeForce business? We break that business down both by desktop and notebook. But we also tend to look at it by what part of it is gaming and what part of it is actually non-gaming. We look at the overall gaming market primarily associated with key ASP levels, that we do know their main reason in terms of why they are purchasing that is for that overall gaming experience.

Of our GeForce business now, gaming represents more than 75% of our business. So not necessarily tied to the overall PC market. And it has extremely strong growth rates. Just in this last quarter with the launch of the overall Maxwell architecture, our overall gaming business grew more than 30% year over year versus what we had seen.

Our Maxwell architecture is our 10th generation, which we started with some midlevel GPUs a couple months ago and in September we launched the new Maxwell architecture at the high end. Those have been tremendous feedback in terms of the market and acceptance in terms of those. Tremendous reviews all around. And we had about a half a quarter of overall Maxwell architecture in our Q3. So we're looking at right now Q4, of a full quarter of Maxwell. And seeing those results. It's a prime time in terms of all the season of new games that hit the market for the PCs, as well as our new architecture.

You also spoke about our share gains and what we have seen in terms of the overall discrete share on GPUs. We just received from Mercury about a month ago that our share is now probably up over 70% of the overall discreet market. So maybe over the last two quarters that has grown more than 5, 6 points, mainly due to the launch of Maxwell. But we'll continue to see how this does in terms of going forward.

So we're really pleased in terms of both the acceptance of Maxwell, the adoption of the discreet GPUs, again for the overall gaming market and how important that is. And as we go forward we'll continue to see gaming to be a very strong driver of our overall platform.

#### Ambrish Srivastava (BIO 4109276 <GO>)

Okay. So let me just go through the other two big pieces of the business and then we'll open it up to questions. On the -- within the GPU, the Tesla and GRID. And I was sharing with Colette GRID gaming was launched recently. And my 11-year-old son, I had given him the Shield that we got at the analyst day and I told him, hey, look, you can go to GRID online and you can download these games. And he said, dad, really? I already know it. I'm been using it.

So in that context, maybe we can talk about GRID and how the -- initially the vision -- and I think the vision is the same, for users to use online gaming served by GPUs on the server side. So help us understand where is GRID and what are you seeing in the adoption.

#### **Colette Kress** {BIO 18297352 <GO>}

Right. So really simply, our overall GRID platform is about a virtualized GPU. Where normally your GPU that sits on your PC is a one-to-one relationship from the PC to the user, what we created is a virtualized GPU that sits in an overall server environment. So now we can have one GPU to many. And depending on the different workloads that are using that overall GPU, it depends on how many users we can do.

So there's two main areas in terms of focus for that virtualized GPU. One in the enterprise, which we talk about the overall VDI environment and that virtualized desktop for high-end -- either users really needing a very well-streamed application in the cloud with the key visualization that is necessary. So we're seeing a big uptake in terms of people, in terms of trials and deployments on people getting a much better user experience using that VDI environment with the virtualized GRID in the background.

The new one that we just announced about a month ago was our overall streaming gaming offering that we offer with our overall Shield Tablet. Our Shield Tablet is the NVIDIA-branded tablet that incorporates our overall Tegra processors; really a tablet geared for gamers. And the key thing that you get with that is the ability to stream your games from your overall PC that you've purchased to a mobile environment.

What you find with gamers or any enthusiast in terms of the sports or whatever they may do, they want gaming everywhere. They want gaming on that PC. That want it (inaudible) to that mobile environment. And we've really been able to serve that as we've had a good understanding of the ecosystem and how they play the games, which games are important to us. And so we're using the virtualized GPU experience, our overall Shield, as well as what they have in terms of their PC and the

GPUs as well. So it's a very intriguing business and we're in the early stages. But great reviews, great feedback from the customers in terms of that experience.

#### Ambrish Srivastava (BIO 4109276 <GO>)

Okay. Then Tesla. You guys have built a pretty decent-sized business now, GPGPU. Competition is there, obviously. Intel is competing and recently the PLD guys also talk about competing in that space. So a couple of questions there. A, what are you seeing and what are the drivers for that business, the different segments? If you could just highlight where you're seeing the most traction. And the second question, some thinking on competitive dynamics on how does NVIDIA differentiate.

#### **Colette Kress** {BIO 18297352 <GO>}

Correct. So Tesla is our accelerated GPU for the data center. We've grown quite tremendously over the last several years in this business, primarily regarding the HPC parallel computing that we talked about at the very beginning.

We recently announced, just last month, an expansion in the world of supercomputers where the Department of Energy has announced using Tesla for the two largest supercomputers that will probably be available for the next couple years. Important to us in terms of that is always a multiple-bidding type of opportunity. But really helping understand the importance of NVIDIA's technology in really accelerating that aspect.

The other key part was the use of NVLink, which is our new bus between the overall CPU and the GPU. And a much faster speed than what has been there. We announced this with IBM Power Servers. So this is, again, a true test of very important architectures with the IBM Power Servers, our NVLink and the overall NVIDIA GPU. So that's one key area where, again, we see that continued expansion in many different growth opportunities.

However, the other key aspect that we talked about at the very beginning is really what we're seeing in terms of machine learning or data analytics, I would say. A lot of interest in terms of tagging identification of data that's coming over the network, whether that be an image, whether that be voice recognition or through videos. The use of an overall GPU, accelerated GPU, is really outstanding in terms of the accuracy that you can see. Not necessarily a discussion right now in terms of how much will that cost and you see a lot of the overall competitive play really talk about a cheaper type of option.

When you're really looking here, it's about providing a platform that gives them what they need because the amount of time savings that there is, in terms of the accuracy of that is so important. So we're seeing a lot of the internet service providers in key areas of research, higher education, really focusing on machine learning and I think we're just in the initial stages of how big that overall opportunity can be. But the last two quarters that we've announced, both in Q3 and in Q2, we've announced record quarters again for Tesla, really associated with these large projects that we're seeing.

#### Ambrish Srivastava (BIO 4109276 <GO>)

Okay. In the interest of time. And I know you touched on the Tegra autos earlier on, I just want to see if there are any questions from the audience.

#### **Questions And Answers**

## **Q** - Unidentified Participant

Yes. China recently--.

## Q - Ambrish Srivastava (BIO 4109276 <GO>)

Would you mind waiting for the mic?

#### A - Colette Kress (BIO 18297352 <GO>)

Yes. Thank you.

## **Q** - Unidentified Participant

Yes. China recently allowed gaming consoles. How big of an issue can that be? Because the test rate's really high in China, right--.

#### **A - Colette Kress** {BIO 18297352 <GO>}

Yes.

# **Q** - Unidentified Participant

For the PC gaming.

# **A - Colette Kress** {BIO 18297352 <GO>}

We do have a very strong presence in China in the overall PC market. It is part of their social system in terms of PC gaming. The consoles have been legalized in China. What is unique with most government regulation, although there may have not been legal aspects, there were still a significant amount of consoles already in the country that were brought in by other different means. So we haven't really seen any material effect on our business at all from that overall legalization of those. As the overall PC platform is very, very well established, the experience on a PC versus a console, if you are a PC gamer you'd notice a significant difference of going down to a console in terms of that experience. So we're not necessarily seeing that.

So right now, yes, it may be overall legalized, which I just mean more gaming is occurring. But the PC gaming market is still extremely strong. And we continue to see the industry move up to a better and better or higher-priced GPU in terms of a higher mix, in terms of what we're selling as they see that experience being extremely important to them.

## Q - Ambrish Srivastava (BIO 4109276 <GO>)

Other questions from the audience?

Okay, good. Then I have one which I'll ask back on Tegra.

## A - Colette Kress {BIO 18297352 <GO>}

Okay.

## Q - Ambrish Srivastava (BIO 4109276 <GO>)

Tegra, you have deemphasized the handset market because it's too competitive and maybe not as profitable. But if you could just highlight for us what are you seeing in the auto side of the business. And you've set out a bookings number that you gave with that and how are you tracking to that.

#### A - Colette Kress (BIO 18297352 <GO>)

Yes. So when we think about the overall Tegra business, the overall goal was to really think about where the opportunities which were best matched to the overall visual computing capabilities of that GPU in an SOC environment. A handset can be and we have had some very key wins with very top-end phones where that experience is important. Also moving to some of the tablets, again, where the performance is extremely important.

But our main focus is really focusing both on the gaming market in the mobile aspect. That can be, as you've seen, quite a few unique tablets that are on the market; the Nexus IV, our own Shield Tablet. You've seen the emergence of Chromebooks, which again are a big part of those aspects.

The moving to the overall automobile market, which is interesting about this is it's not necessarily just a focus on the virtualization as we are in that center console, as well as in the dashboard for many of those high-end luxury vehicles. But it's also about assisted driving or autonomous driving cars of the future. And this is a case where you're using the ability of an overall GPU to help with algorithms that alert the driver of the future on how best to drive the car or have the car drive itself. So now the GPU in the car is being used in very, very advanced aspects. There's a lot of different microprocessors in a car; there's probably about 50 of them. But we're really talking about a key module that we're doing to control many of the key aspects of that car.

So we're very pleased with it. We set out to really drive a growth rate that was more than just a small growth rate. We've shown in this last quarter that we've almost doubled year over year and the first two quarters of the year were also quite strong, growing about 60% to 70% in those first two quarters. So I'd say we're well on track. We talk quite openly about our overall pipeline of deals in the future. And really, that's about designs that we've already won for the car and we just know that those cars just have to hit the road and the timing in terms of when they purchase that. So

we've got probably near a \$2 billion pipeline of additional revenue over the next five years or so that will come into the P&L.

#### Q - Ambrish Srivastava (BIO 4109276 <GO>)

Great. Awesome. Thank you very much. Appreciate your time.

#### **A - Colette Kress** {BIO 18297352 <GO>}

Okay. Thank you.

#### Q - Ambrish Srivastava (BIO 4109276 <GO>)

As always, a pleasure.

This transcript may not be 100 percent accurate and may contain misspellings and other inaccuracies. This transcript is provided "as is", without express or implied warranties of any kind. Bloomberg retains all rights to this transcript and provides it solely for your personal, non-commercial use. Bloomberg, its suppliers and third-party agents shall have no liability for errors in this transcript or for lost profits, losses, or direct, incidental, consequential, special or punitive damages in connection with the furnishing, performance or use of such transcript. Neither the information nor any opinion expressed in this transcript constitutes a solicitation of the purchase or sale of securities or commodities. Any opinion expressed in the transcript does not necessarily reflect the views of Bloomberg LP. © COPYRIGHT 2024, BLOOMBERG LP. All rights reserved. Any reproduction, redistribution or retransmission is expressly prohibited.