Barclays Global Technology, Media and Telecommunications Conference

Company Participants

- Rob Csongor, VP of IR

Other Participants

- Blayne Curtis, Analyst, Barclays Capital
- Unidentified Participant, Analyst, Unknown

Presentation

Blayne Curtis {BIO 15302785 <GO>}

I am Blayne Curtis, semiconductor analyst here at Barclays. Happy to have NVIDIA and from the Company Rob Csongor, VP of Investor Relations. He is going to do a presentation. If there is any time left over we will do a little Q&A in the breakout rooms upstairs, 403. Thanks. Rob?

Rob Csongor {BIO 3210739 <GO>}

Okay. Thank you. I will start by first of all, please note our safe harbor. I am going to go through I think a couple of the key investment messages and I will try to tie them back in a way that isn't just about motherhood and apple pie but kind of explains a little bit of the core of our most recent strategy.

So currently NVIDIA, we consider ourselves the world leader in visual computing. That used to mean something a long time ago when I joined the Company and it means something very different today. And that has led to the fact that visual computing is increasingly more critical across more markets and more users. So I want to talk about that and explain how that translates into some opportunities for us.

Basically what we believe we are doing as our key strategy is to take visual computing and extend them into large opportunities for defensible growth and some of these are pretty obvious and some of these take a little bit of work to show it. So I will do my best to explain what some of those strategies are.

The other thing that we have been focusing on is at the same time as we are doing this, I believe that NVIDIA has the ability to make disciplined investments for growth by leveraging our core R&D. So there is a lot of common functionality in visual computing that you can imagine we have to build regardless of which market we

have to go after and as a result what we are doing is with some incremental investment we can go after a much larger opportunity but the incremental investment is there for much smaller.

Then finally, we are increasingly committed to returning cash to shareholders and we think that adds to the value of our message today.

So in terms of our strategy, our strategy for growth and returns first of all, many people associate NVIDIA with the PC market and we have done presentations in the past to show that we don't address the entire PC market, we address a subsegment of the PC market, what we call specialty PCs which include gaming and they include professional workstations. One of the reasons that there is some disconnect potentially with NVIDIA is not just that we do this but that the disruptions that are occurring to the PC market actually are things that we view as opportunities and we have strategies that we are going through to go drive the very disruptions that are happening into the PC market. So I will talk about that.

But the net effect of all of this with mobile and cloud disrupting the PC, we believe this has created enormous opportunities for NVIDIA. Essentially by 2015 we believe there will be over 3 billion HD devices, in other words, imagine any device that is high definition becomes an opportunity for NVIDIA to extend its GPU into. They used to just be PC but now it is a lot more. So I will walk through what our strategies there are.

Number two, we are leveraging our leadership in visual computing to capture differentiated positions in new markets. So for us one of the common questions we get is how can we compete against in many cases companies that are much larger than us. For those of you who know NVIDIA, we have been competing for example against Intel for many, many years. It just so happens that 3-D graphics and visual computing is extremely difficult and hard to do but one of the key fundamental components of what we are doing in taking this technology and then extending it for example into mobile is that when someone we compete with is looking to get into this business they have to do an enormous amount of research and development to develop graphics capabilities, visual computing fundamental technology that we have already developed and have been developing over the last 10 years.

So what I'm illustrating there on the second point is that over the last 10 years we have spent over $6 billion in R&D for visual computing. But what we can do as an incremental investment for us to go into say the mobile market, this only requires an incremental investment of $320 million. So when we develop a Tegra processor to go target the mobile market we are leveraging a lot of R&D investment that we have done in GPU. Does that make sense?

These new opportunities and where we have extended are into areas like our server GPU and new computing devices. These are ramping very rapidly. So last year for example Tesla and Tegra combined was about $850 million in new revenue in FY '13

and we combined believe that we are just at the beginning of this opportunity. Combined we believe this opportunity is over about $20 billion in new TAM.

In the process of leveraging our core R&D and doing incremental investments we also have been focusing on operational excellence. We believe that we have been investing the right amount to give ourselves the opportunity to go after these large opportunities but in the process we have also managed to drive gross margins up. We have managed to control OpEx, we have managed to generate a lot of cash and at this point, we are now increasingly returning that cash and capital back to the shareholders. So I will talk about that.

Okay, first of all when we say we are the world leader in visual computing what we really base it on is first of all a history of creating technology innovation. We were the creators of the GPU, we created the first programmable GPUs. Aside from patents and all of this kind of thing, we extended that leadership into mobile, we created the first dual core apps processor for the mobile market. We created the world's first quad core and we created the world's first server-based graphic solution and we have some new news today. I will update you on that breaking news from about an hour ago.

What we did with that is we leveraged that and turned it into transforming applications and what people do. So today within the PC gaming world, this is a $16 billion market. In one of my meetings today someone described it as a niche so it is a $16 billion niche market. The number one PC gaming brand is NVIDIA. The number one professional design GPU brand is NVIDIA. The number one compute GPU in the top 500 supercomputers.

So we measure leadership and visual computing by these types of metrics. Other types of things probably the airplane that you flew here or the car you drove was designed using NVIDIA GPUs and all of the special effects in the Oscar-nominated movies were all done on NVIDIA. So these are some of the backgrounds and the basis by which we measure visual computing.

We deliver visual computing to market in a range of solutions so from one end, we have technology that we can license, we have processors or components in the form of processors and modules and recently what we have started doing is building entire systems. So we have a complete system that is branded. We just also recently launched or introduced a new product, this is the shield gaming device. I think three people tried to steal this from me today in the meetings that I had. So this is just announced this week, preorders have just been announced for this device and this is built and branded by NVIDIA. So this is a little bit of an evolution of how we bring our products to market.

We have a number of different brands and we target what we believe are large opportunities. So again, earlier I mentioned that we don't target the PC market as a whole. We target subsegments so first of all the gaming market. Within the gaming market. we have two brands, GeForce which is our card and then GRID, which is a

new product which allows you to deliver interactive gaming over the Internet streaming. Together the combination of these markets today is about $6 billion.

We target the enterprise market so this is our professional workstation, our high-performance computing and then GRID. Then finally, new computing devices and this is called Tegra.

We used to by the way call this mobile. Tegra, we don't actually refer to Tegra as a mobile business anymore because Tegra is now increasingly going into more and more of the different businesses within NVIDIA. So whether it is our next generation servers, whether it is taking -- we can take Tegra, we can put it onto a module, we can put Linus software on top of it and now it goes into a car and it is now supplying the navigation system infotainment for Audi, BMW, the Tesla cars. So this is an increasing business. So Tegra as a product you are increasingly going to see Tegra going into a lot more new types of devices.

In the process of us transforming from just being a PC graphics company, we have managed to achieve some pretty good financial results over the last couple of years. Last year was arguably one of the worst markets or worst years ever for the PC market and we had record revenues, record profits. This past quarter we were down in terms of revenue but we -- I am sorry -- we were up from the previous quarter but we had a record quarter in terms of gross margins.

So we have managed to drive revenue 20% CAGR in the last several years, record gross margins that I mentioned and EPS of 38% CAGR.

Now one of the things that we've believe is fundamental to our opportunities going forward is visual computing. I think one of the things that people have realized is that you can license and arm core or graphics core integrate it into an apps processor but it doesn't mean that you are world-class. But what has become clear I think to many people is that there is an entire world of new types of devices that are increasing out there where visual computing matters. If you look at other companies' launches, you look at the launch of iPad last year, Apple spends a significant portion of their time talking about graphics and I think you see a lot of other companies starting and talking about visual computing.

Even the way that this particular picture is drawn, I have two devices up at the top that look like notebooks, one of them is a Windows x86 where we sell a discrete GPU. The other one is the new HP Slate book that was announced last week. They look similar on the slide, the only difference is that the one on the right doesn't have an x86, it has a Tegra 4 from NVIDIA and the screen detaches, the screen becomes a tablet and the bottom portion is a keyboard and an extra battery.

So the line is blurring. It is hard to tell now increasingly what is a personal computer and what isn't. But what we do know is that all of these devices demand world-class visual computing. What we do is we take the visual computing, we deliver it in the

form of a GPU and this GPU is delivered to this world of devices either in the form of a discrete GPU or in the form of a Tegra device. The line is blurring.

Now what we have done is focused on taking this visual computing another way to represent the previous slide is that you have got the segments of the PC market that we focus on that we are growing and by the way, the reason they are growing is because PC gaming is growing and we are now looking at taking it beyond the PC.

So in terms of what that represents if you look at this chart on the right, the GPU component there, the $6 billion, GeForce and Quadro represents our PC so that is our PC business. Tesla is taking GPU and moving it into supercomputers, moving it into high-performance computers.

What we have done is then take that GPU and move it into a new product group called GRID which we believe represents a $10 billion opportunity in both enterprise as well as consumer gaming. Then the final component is taking our GPU, putting it into a Tegra and then targeting new types of devices, Android devices, new types of Win PCs, automotive and a variety of other devices that I think you will see coming out that are going to be based on Android. So collectively all of these represent what we believe are unique opportunities for NVIDIA where visual computing matters.

I mentioned I talked about the GRID opportunity. One of the things that we did in our latest generation of GPU is we created the ability to virtualize the GPU. So the way that GPUs used to work before is that if you had a GPU it was in a PC or it was in your laptop and it was connected to one display and you were looking at it and interacting with it. With our last generation of GPUs, we created the ability to virtualize it which means that one GPU can service for example, 10 different requests for visual information. And what we started working on was to take that capability and then put graphics and visual computing into the server room and where you can interact with it.

Now why would you do that? One way to look at it is that NVIDIA's opportunity just went from a PC to any display that is connected to the Internet. Imagine in the demos that we have done we are able to show high-performance workstation applications running on an iPad. In other words, there is no way that iPad could have that kind of capability but it is connected to a server and then the interactive graphics component goes through the Internet and then you interact with it on your iPad or on your MacBook. So this creates an enormous amount of opportunity.

Now there is one component of this business and there is three different segments of GRID that we are going after but one of the components is the entire VDI market so you guys know that there are companies out there, companies like Citrix, VMware, people like that who have virtual desktop solutions out on the market. So earlier I mentioned that there is some interesting news today so the one thing we just announced I think about an hour ago.

Right now Citrix is holding their big show in Southern California, Citrix Synergy. The Citrix CEO and the NVIDIA CEO got on stage and announced NVIDIA GRID vGPU. And what this is is the ability to GPU accelerate all of Citrix's XenDesktop and XenApp applications. So just imagine the entire world of PLM today, product lifecycle management, everything from design conceptual all of these enterprise companies that are trying to use virtual desktop for security reasons, for centralized reasons all of these things, a lot of these applications have been limited by graphics intensity demands. In other words, the promise of VDI is you can run it anywhere on any device but in many cases the performance of this has been lacking.

What we announced today together with Citrix is that we are GPU accelerating all of Citrix's products. We also today announced that Cisco has announced a new server which is using GRID which you can use to accelerate this. We also announced that we are endorsed by the M7 Consortium. This is a group of Citrix's top platinum resellers and they are taking this to market.

So there is information on this online if you want to take a look and get more information. This is a very exciting announcement for us today.

Overall we look at the GRID opportunity as a $10 billion TAM opportunity. And as I mentioned, it is broken really into three opportunities. The first is gaming. The gaming opportunity is going to take the longest and the reason and one way to imagine what this opportunity looks like is you can check into the Crowne Plaza next year, go up to your hotel room, turn on the television and then you would see an option to either watch a movie or else play Call of Duty Black Ops 2 and there is no game console in the room, there is no PC in the room, there is no set-top box in the room. You are just simply streaming and somewhere in Manhattan you have GRID gaming servers that are allowing you to interactively play the game over the Internet.

So now again you have the opportunity potentially to be able to have GPU acceleration for applications in virtually any display and in this case, the display is here the television in your hotel room.

Now that is going to take time to set up and get out because you have to also co-locate servers, you have to work together with service providers to make sure that you maintain a good quality of service across a wide geographic area. So this is something that we view as a good opportunity but it is going to take a while.

However, the enterprise applications NVIDIA is actively engaged with right now so the visual computing appliance we have already announced we have engaged the top resellers of Adobe, SolidWorks and Autodesk. We believe there is 10 million creative designers out there. 50% of them are in small to medium business and this product is a reseller type of product, this is branded by NVIDIA and we are taking it out to the market. Some of the early indicators of future success of that are that we signed the top resellers for each one of those applications already and we are in the process of taking that to market.

Then finally, Enterprise VDI, I talked about some of this but we believe there is a class of workers out there, 700 million enterprise workers, 160 million knowledge workers, applications that people use that have a level of graphics requirement and by GPU accelerating the VDI we believe that creates a big opportunity for us.

The other growth area that I talked about, these are the growth areas we are focusing on to grow beyond the PC. The other growth area for us is Tegra. So the best articulation I can think of for Tegra is that Tegra brings NVIDIA's visual computing advantage to a new large world of computing devices.

Now the first most obvious thing that people think of is phones and tablets. Within the phones and tablets world, that is primarily Android today so currently today our opportunity there is about 430 million tablets that are forecast to be out there by 2016. The forecast currently is that tablets are going to pass PCs within the next couple of years in terms of the number of units. In essence they become our new PC.

Except in this new world, it is not a requirement that you have to have an x86 CPU. The new HP SlateBook that was announced last week has no CPU. It just simply has a Tegra 4 system on a chip and that chip does everything on there and that is from NVIDIA so that is obviously an opportunity for us.

Within the phone market, there is a very large, there is 450 million LTE phones forecast by 2016. We made a strategic decision to acquire a company called Icera and develop a modem technology ourselves. We also made a decision this year to accelerate the time to market of that product. We actually moved that schedule up and at the expense of our Tegra 4 product which cost us short-term revenue in the First Quarter and the Second Quarter but we believe it was absolutely the right thing to do.

I think in fact one of you guys described it to me having the having the LTE modem is important, it is kind of the hunting license. You can't talk about your visual computing expertise until you can actually get in and have an LTE modem. So the LTE modem is a required component and we're working very, very hard. We are working on getting certification and validation of that this year and then first device is coming out in Q1.

WinRT is something else that we were in. We obviously have a lot of expertise in Windows. I think Microsoft is committed to WinRT. The first phase of WinRT was a limited number of devices and I know there has been a lot of feedback on WinRT one way or the other. To those of you I think if you remember the original launch of the Android, Android had a lot of issues on the first launch but I believe that Microsoft is committed to WinRT. It is too important and I think that will be something that isn't part of our addressable market.

We also have automotive in here. It is actually interesting one of the things that I don't think many people are aware of. One of the largest backlogs we have in terms of orders in the Company is actually from automotive. The bad news on automotive

is that it takes a long time to get a design win but the good news is when you get a design win, it is sticky and it stays for quite a while. So we actually have orders going out many years into the future and actually our actual backlog right now in automotive for Tegra is $2 billion in revenue. It is really astounding.

I think one of the things that we had mentioned to people in terms of milestones if you are looking at Tegra, what are the things you can look for, I think we are starting now to see the beginning of Tegra 4 announcements. This is our new apps processor so we had pushed it out. Normally we would have been ramping it in Q2. We are now ramping it in Q3 but the announcements are starting to come. So last week I think you saw -- I mentioned it already -- the announcement of the HP SlateBook. I also mentioned the Shield device, this is Tegra 4. This is now being pre-ordered and then availability of this device is in August.

One of the things I mentioned earlier about leveraging -- one of the questions you might say is how does your core expertise help you in the Tegra market? If you were to take a look -- and this is data that just recently came out -- 76% of the revenue that Google gets from apps is games, 76%. 76% of their revenue is games. Two-thirds of the time that consumers spend on a tablet is games.

So when we talk about a lot of the experience, the work that we do in games it goes far beyond just creating a GPU. We understand the gaming market very, very much. We work with the developers, we work with gamers, we have a direct relationship with the gaming community and these are all things that we think are very important.

I think one of the things that is also very important is the amount of developer attention on this market. So when you look at Android and this is data that came out of GDC, this is the recent show. GDC is one of the top shows for gaming developers, 55% of developers said that mobile devices was their major focus and when they say major devices, mobile devices, what they really mean is (ARN). In other words ARN as a component of iPhone or Android is their top focus. Their next focus is PC. You notice both of these are open platforms. They are open platforms.

Then far distant is the traditional closed platform game consoles. So we believe that one of the important opportunities for NVIDIA we are focused on Android, we are focused on gaming and bringing Tegra into this market I think is a key leverage of our core competency.

I mentioned the Shield device. One of the things that we decided we already have developed a Tegra device, we already have game expertise and core competencies. For an incremental $10 million, that is what the R&D expense was for us, an incremental $10 million investment, we developed a device ourselves and we put it -- we just announced preorders for this device. This is the Shield gaming device, it has a Tegra 4. It allows you to play any game in the Android market. So in the Android market is roughly 600 million gamers any game and in addition to that, you can have physical controls and you can project this and play it on your TV.

The second thing you can do is you can stream from your PC. Let's say you have a GeForce in your PC you can now stream, connect to your PC wirelessly and then start playing on your PC but it is streaming to your controller and then display on a TV.

By the way just that feature by itself has caused an enormous amount of excitement within the gaming community. So the PC gaming market is 100 million users. So between those two, we believe this is something that we have an opportunity for and we haven't given any kind of guidance or revenue expectation for Shield. We just simply wanted to build this device and it leverages a lot of the work that we are already doing. We are very excited about it and we're looking forward to see how it does.

When I talked about our leverage core R&D investments, this is really what we are referring to. So for example if I took Shield as an example or if I took some of the Tegra devices that we build, every one of those has a GPU in it. That GPU had to be developed, it had to have software developed for it, it had to have VLSI, there had to be a content technology team assigned and there is a process R&D that we go through.

In the case of whether it is GPUs and whether that GPU goes out as a discrete or whether it goes to Tegra we still build and do that core R&D. So when we say that we are able to leverage this core R&D investment, the net result of that is that it allows us with a very small incremental investment to go after new opportunities and new markets. So that is what I was referring to.

In the case of GRID, it is about $10 million. For Tegra. And when I say Tegra it includes every opportunity in Tegra -- automotive, phones, tablets, clamshells, new types of devices -- that is about $300 million. Then Shield as I mentioned is $10 million. In any case we believe that this is a core ability, a unique ability that allows NVIDIA to go out and compete against some bigger companies.

From last year to this year, we made an enormous amount of progress. From last year at the beginning of last year we had a flood, we had supply issues with TSMC. We didn't have a modem working yet, we didn't have design wins in (NEX7) and a number of other devices. From last year to this year we believe our position has become much stronger.

And in line with that and in line with the fact that we have been generating a lot of cash over the years, we feel very comfortable and confident that we announced a policy to start returning cash to the shareholders. We announced a dividend back in November. We got authorization from the Board to do a $1.2 billion return of capital to the shareholders and we recently announced an accelerated share repurchase program as well as a commitment to continue those programs. We expect to continue the dividend, we expect to continue share repurchase. And so one of the things that I think is key is that we have an increasing commitment to return capital back to the shareholders.

For NVIDIA, upcoming milestones. First of all, I already talked today about the announcement with Citrix so I think this was an important milestone at this point right now. We are working together with Citrix, IBM, Cisco, Dell, HP, a number of these people and bringing GRID to market. I think the announcement of the vGPU product today opens up the entire virtual desktop market for NVIDIA and this is very exciting.

Other things that you could look for, I mentioned Tegra for devices announcement starting now and ramping in Q3. Between now and the next several weeks going into Computex, I think you can expect to hear some more news so look for that.

I mentioned Shield, preorder started this week and they are on the store shelves in June. So production, we are ramping for production and in June they show up on the shelves.

GRID Virtual, this is the VCA, that is the server product I mentioned. That is basically starting sales revenues, starting in Q3. Then Tegra 4i, Tegra 4i is the product with our integrated LTE modem. By the way, one of the things we demonstrated this week at CTIA is our Tegra modem running CAT4. So for those of you familiar, CAT4 is the next generation LTE modem.

Now in and of itself, you would say QUALCOMM showed that at Mobile World Congress so you are basically saying you did it too which is true. However, there is one key difference. The CAT4 modem that we showed and us showing it running at max performance was done using the same chip. This is something that I think made a very big impression on our customers and on the press and everybody who saw this. In other words the architecture of our modem is a software modem. So for us to get CAT4 running was just to take the same chip we had before, to load a new software algorithm on it and then to run with new capabilities.

To anybody else that would have required a respinning of the chip. It would have had to go back and create a new silicon and of course you have a lot longer time to market. So this is probably our first real demonstration of the power and flexibility of our unique software defined modem. We think this will be a very key differentiator for us in this market.

Other than that demonstration, we continue to work on carrier certification. That is the big thing we are working on throughout this year. We expect final certification to happen in Q4 and then our first devices to ship in Q1.

In terms of our outlook, the outlook that we gave in Q1, we had $955 million. Our Q2 outlook is to go up -- roughly 2%. Currently the underlying pieces of our business the PC and GPU business continues to be very strong, robust. We anticipate notebook business to be -- to decline somewhat. Overall I think the notebook business will be more or less stable for us. We ship into the high-end of the market but in general the major portions of our business are that the high-end GPU

products are doing well, Quadro and Tesla are doing very well. GRID is starting to ship and Q2 represents essentially the trough quarter for us in terms of Tegra.

In other words this is the point at which Tegra 3 winds down and then we begin the ramp of Tegra 4 in the second half of the year.

Our OpEx was up slightly in Q2 from Q1 mostly due to R&D expenses. We taped out three major chips in the quarter and we expect to hold our OpEx throughout the years similar to what we did last year. Last year we said we would spend $1.4 billion non-GAAP and we spent what we said we were going to spend and we expect to do the same this year, $1.6 billion non-GAAP.

So I think the key things just in summary, growing the PC and beyond number one. We believe visual computing is more important than ever. We believe it applies to more markets and more users and more devices than ever before and we believe that aside from us saying it, there are a lot of supporting indicators in the market that reinforce that.

We continue to drive our visual computing leadership as evidenced by our GPU growth. We are extending GPU computing into the server and data center so now moving beyond the PC. I think the announcement today is a good indicator of the level of success that we are having with doing that.

Tegra leverages our GPU strengths into smart devices. We are working hard on the modem certification and we have our next-generation apps processor in the process of rolling out and we have a commitment to long-term profitable growth and capital return based on the announcements we have made, our accelerated stock repurchase and our ongoing commitment to dividends and repurchases.

Okay. Blayne, I tried to keep it within the time limit. I think we have time for maybe one or two questions and we had a breakout session afterwards. I covered everything. There is no need for ---.

Questions And Answers

Q - Blayne Curtis {BIO 15302785 <GO>}

Exactly. Maybe just actually --

A - Rob Csongor {BIO 3210739 <GO>}

I thought he had a question. Yes?

Q - Unidentified Participant

What happened in the gaming console business? Clearly you guys didn't get any business on the three big gaming consoles. Are you guys not focusing on that business at all now?

A - Rob Csongor {BIO 3210739 <GO>}

I would say that it is not a major focus area for us. Whenever you do a console -- we have done two consoles and each time it is not an easy decision. So instead of doing a console we developed Tegra, we developed GRID, we developed Tesla. And the other thing is that we are very much believers in the open platform, the open gaming platform market. Between the PC and the Android market, we think there is a lot of opportunity.

I joined NVIDIA in 1995 and at that time, the first Saturn and the first PlayStation were coming out and at that time, the console was roughly 100 times more powerful than the PC. If you wanted to have a 3-D graphics experience, the only way you could do it was on a console. Today that situation has changed. I think today the PC is 100 times more powerful than the console.

So it is a little different in strategy so the console is still -- it is still a viable game platform. There's certain classes of games that I think you play on a console but from our perspective it is just simply a matter of where do we prioritize our R&D investments.

Q - Unidentified Participant

You mentioned competing with Intel. They claim to have a significant manufacturing advantage as I am sure you know?

A - Rob Csongor {BIO 3210739 <GO>}

Yes.

Q - Unidentified Participant

Do you buy that? And if so, how will you be competitive on cost long-term?

A - Rob Csongor {BIO 3210739 <GO>}

Yes, I buy it. I think Intel has fabulous manufacturing capabilities. I just think that manufacturing capability only matters if you have a product that is more or less the same. If you are building an x86 and then you have another x86 that is very similar and one has an advanced processor and the other doesn't, then it is going to be ugly for the guy who doesn't have the advanced processor.

But architecture trumps manufacturing process every time. I mean logically otherwise they would have replaced those a long time ago. Right? GPUs architecturally do something so much better for certain applications than anything else out there that it doesn't matter what that something else is. If you want an apple, you're going to buy an apple. It doesn't matter how good the orange is, how well the orange is made. Does that make sense?

Q - Blayne Curtis {BIO 15302785 <GO>}

I think we are out of time. But thanks, Rob.

A - Rob Csongor {BIO 3210739 <GO>}

You were going to say something. All right, that is all right. Thank you very much.