

The Economic Club of New York

---

Ruth Porat, CFO  
Alphabet, Inc.

---

May 22, 2017  
New York City

Interviewer: Maria Bartiromo  
Anchor and Global Markets Editor  
Fox Business Network and Fox News Channel



## Introduction

Chairman Terry J. Lundgren

Hello, everyone. Thank you everyone. Welcome, everybody, to the Economic Club of New York. My name is Terry Lundgren. I'm Chairman of the Economic Club and Executive Chairman of Macy's, Inc. The Economic Club of New York is the nation's leading nonpartisan forum of speeches and conversations on economic, social, and political issues. And more than 1,000 prominent guest speakers have appeared before this Club over the last century and have established a strong tradition of excellence. I'd like to take a moment for us to recognize the 248 members of the Centennial Society, each of whom has contributed – on a one-time basis at least – \$10,000 to the Club which has become very, very important to us. And if you're not yet a member of the Centennial Club and are dying to become one, then see Barbara Allen after today's luncheon.

For the first time today we also have in the room seven of our now 20 members of the 2017 Economic Club of New York Fellows Program Pilot Class, which was funded this year through the support of the Centennial Society. Through this program we hope to introduce the next generation of forward-thinking business executives to the Club. I'd also like to welcome the two tables of students who are here today – one table from Columbia University and the Robert Toigo Foundation MBA Fellows Program, and that again is thanks to generous contributions from members of our Club.

It is with great pleasure for me to introduce to you a former Economic Club of New York board member when she lived in New York, and our guest speaker today, Ruth Porat. Ruth joined Alphabet as senior vice president and chief financial officer just two years ago. Prior to joining Alphabet, Ruth was Executive Vice President and Chief Financial Officer of Morgan Stanley. Ruth has held several roles in her career at Morgan Stanley, including Vice Chairman of Investment Banking and Global Head of the Financial Institutions Group. And Ruth is Vice Chair of Stanford University's Board of Trustees and a member of the Board of Directors of Stanford Management Company. By the way, I'm sure you work closely with Marc Tessier-Lavigne who is also a former member of the Economic Club of New York. So, those of you who are fellows and students, you have something to look forward to. You can either become, if you become a member of our Club, you can either become the CFO of Alphabet or the President of Stanford University, or a world-renowned media anchor as well. She's also a member of the Board of Directors of The Council on Foreign Relations and a member of the Advisory Council of the Hutchins Center on Fiscal and Monetary Policy at the Brookings Institute, and of course of the Economic Club of New York. Ruth holds a bachelor's degree from Stanford University, an MBA from the Wharton School, and a master's degree from the London School of Economics.

We are also quite fortunate today to have as our interviewer, fellow Economic Club board member and anchor and Global Markets editor of Fox Business Network and Fox News Channel, Maria Bartiromo. Maria joined Fox Business Network, FBN as it's known, as Global Markets editor in January of 2014. She is the anchor of Mornings with Maria on FBN and

anchors *Sunday Morning Futures*, which is the most watched Sunday morning program on cable. Maria has covered business and the economy for more than 25 years. She was one of the true building blocks of the business cable network for CNBC, was the first journalist to report live from the floor of the New York Stock Exchange on a daily basis, and is the author of several books. She regularly writes columns for multiple major media outlets and has received many prestigious awards including an Emmy Award – her second, by the way – for her 2009 documentary called *Inside the Mind of Google*. To sum it up, Maria is the perfect choice to do this interview today. Maria and Ruth, let the conversation begin. Welcome. (Applause)

MARIA BARTIROMO: It is great to be with you all today. And Ruth, it's so nice to see you. Thanks for sitting down with all of us today.

RUTH PORAT: It's great to be here. I would say it's odd to be back in a business suit after my blue jeans and tennis shoes.

MARIA BARTIROMO: Exactly, exactly. And that's where I want to start because you've had an incredible transition, having been at Morgan Stanley for 28 years, really a leader in financial services, to transition over to literally one of the most exciting growth stories of the last 20 years, Google and now Alphabet. Tell us about the transition and how your life has changed.

RUTH PORAT: Well, I had spent about a lifetime at Morgan Stanley. It was truly incredible

being there, and in particular, the last six years as CFO, working closely with James Gorman post-financial crisis and really the ability or the opportunity to make so many changes to restore the firm back to the stability and strength that it had in those, you know, in most of my career. And I had this sort of series of events with a conversation with John Mack that was \_\_\_ with Eric Schmidt and ended up out in California when I was out there actually for a Stanford board meeting with the legendary Bill Campbell, who is called Coach Campbell. Many of you may have read about him. An extraordinary man who unfortunately passed away a year ago. And he was called Coach because he coached actually here up at Columbia. He coached football. And he was also a coach for people out in the valley – Steve Jobs, Larry Page, and a whole host of us. And he did ask me the question, so what do you think is next for you? And I said I don't know, but I wouldn't leave Morgan Stanley, you know, to become a CFO somewhere, like I love working with James, so certainly not that. And we spent a couple of hours in his home and, I, in retrospect realize how much he was playing me because he kept coming back to that, certainly not a CFO role again. And at the end of the two hours, he said, so I have the perfect idea for you. You should be CFO of Google. And my immediate response was, of course I would do that. I take back everything that I had said. (Laughter) And the reason was that I had known the company for a really long time. First invested through a fund in 1998 actually, worked on the IPO, invested thereafter just because I believed so much in the company, the mission, the people.

MARIA BARTIROMO: Right. You worked on the IPO at Morgan.

RUTH PORAT: At Morgan Stanley. And so, just thrilled to be a part of it, and it's been great being there.

MARIA BARTIROMO: So, I mean really what I'm trying to get at is tell us the difference. I mean when we were on the phone preparing for this interview, you said to me, you know, the processes are different. It's just a different culture. You said sometimes culture is more important than rules and regulations. So, based on what you've just come from at Morgan Stanley – 28 years – to now a whole new dimension, a whole new approach in business, take us behind the curtain.

RUTH PORAT: So, I do think, and I said this when I was at Morgan Stanley, culture is more important than rules and regulations because it really does drive behavior in a way that rules and regulations can get close to but not with the same level of intensity. And one of my favorite examples is something that you covered, what's called TGIF. Every week, to this day, 18 years into Google's life, the founders, Larry and Sergey host an all-company meeting, and anybody is allowed to ask any question and they do. And we have questions that are posted up on, you know, online, and you can vote on them. And whatever is the top question must be answered. There's no, like cherry-picking, that seems too hard. And the execs are behind the stage where we host this, and it leads to a level of transparency which I think is profound. I strongly believe that if banks had that type of system where anybody can ask anything, anybody can...(Audio malfunction) any concern, and knowing that you're empowered to do that, the financial crisis

would have played out very differently. It's an early warning system and it reinforces culture in a really profound way. We keep having technology problems here. Okay. It reinforces culture in a really profound way. That's one example. And I think the main thing is, just it's a culture of innovation. It's an extraordinary culture of innovation. There are some really important lessons from the financial crisis that really struck me as surprising that they're as relevant for Google as they were for the financial system, and frankly for any industry. And that also goes, I think, to the way in which we work. So, for me, one of the most profound lessons from the financial crisis is that you really need to focus on your source of vulnerability. And as many people in the room here know, the greatest source of vulnerability for banks and the financial system was liquidity. And without it, you would choke a bank or choke the financial system. And when I think about the greatest source of vulnerability in technology, it really is the rapid pace of innovation and the need to innovate. There are, you know, there are more lessons. I think one of the really critical things that I learned during the financial crisis is something I heard from Hank Paulson, which is you must have the will and the means. And too often by the time you have the will, you no longer have the means. And I think it's a really profound statement. He was talking about housing. He was talking about Greece. But when you think about it, for all of us who have so many opportunities, the question becomes how do you prioritize amongst those and make the tough calls early. And I think the final very important one is that any company, no matter how tremendous, will fail if it doesn't have strong systems and controls. And we, you know, one of the main things I've been focusing on is providing a greater level of transparency internally so people have the data to make the best decisions. But overall, the biggest difference is just the

sheer breadth of opportunity.

MARIA BARTIROMO: Well, I think you make a great point in terms of the financial crisis and looking at lessons there and looking at how different it is at Google and at Alphabet. You had said to me last week there's an allergy to debt. Is that right?

RUTH PORAT: Yes.

MARIA BARTIROMO: So, you just, I mean you don't, it's a different need. I mean in financial services you are investing in debt, or you're investing in liquidity certainly, and if it involves debt, that's the way it is. You don't have that need in Alphabet.

RUTH PORAT: No, I mean we have a rather sizable cash position. And, you know, I think that – again going back to the culture – the culture, one of the many things that surprised me is people are actually quite humble about our position. And there's a realization that competition, as we often say at Google is one click away, and we need to be maniacally focused on innovation. It's coming from all parts of the world, all parts of the ecosystem, a tremendous VC community that's investing in what is the next round of extraordinary technology. So, what we're really focused on is this question of what are the next big trends? Where should we be going? How can we lead the market? And we have the financial flexibility to be able to invest where it makes sense. The notion of, you know, one thing I've heard is we like all forms of engineering at

Google, just not financial engineering.

MARIA BARTIROMO: That's a good one. So, I want to ask you about how you make these decisions in terms of these other bets, because people are trying to understand how important things are like self-driving cars and the Waymo business or, you know, what you're doing in life sciences. So, we'll get to that. I want to certainly ask you how you come up with those decisions. But very soon into your tenure at Google, you became Alphabet. So, talk to us about the structure change and why was it important for the company to turn into a portfolio of businesses as opposed to just Google?

RUTH PORAT: Well, going back to the earliest days, I think one of the very important approaches of the founders was to be, as I keep describing, intentional about innovation. So, as many of you may have read, we have something at Google called 20% time. If you came up with an idea you wanted to pursue, you could go off and pursue it. It was called your 20% time. And out of that came things like Gmail and our virtual reality business, the Cardboard, the first iteration of VR for us. So really exciting things where people said I want wide space, I want to go off and pursue something. The next iteration of that is Google X, affectionately referred to as the moonshot factory. It's now X. It's within our "Other Bets" family of businesses. But that was a similar kind of approach. Be very intentional about innovation. Create something where the idea is to challenge yourself. We have rapid evaluation in there. You try and kill things before you launch them or fund them. That was sort of the next iteration. I would say on that

continuum, Alphabet is the next iteration. I'm not saying the last iteration because I've got to believe we're going to keep iterating at some point. And the notion was we have so many extraordinary opportunities within Google, we need to have a level of focus around what we're doing there. But we don't want to stop thinking about what are the future big drivers of growth, so let's put those under another sort of umbrella and we call them the "Other Bets." They're a host of companies in life sciences and self-driving cars, our Nest business, Fiber, all in this Other Bet area. And the notion is again have intense focus there. The founders spend a lot of time on what are the engineering requirements, the business, technical requirements to have successful businesses longer term. And then we also have a level of focus and intensity within Google. I think putting structure around your vision, your hope, the direction you want to go is one of the important catalyst for innovation.

MARIA BARTIROMO: Is the idea to eventually spin out more companies, perhaps you spin out a YouTube and monetize these businesses better because you've got the Alphabet umbrella?

RUTH PORAT: You know the view now is within Google we have tremendous growth opportunities. In fact, what I often say is that some of our biggest bets are in Google. And within the Other Bets, we're executing – each one has its own needs and we're looking at differently. So, for example, Verily is our life sciences business. And the CEO of Verily was of the view from the earliest days that the best way to execute what he's doing is to partner with best in class pharma companies from around the world. We're teamed up with Sanofi, Novartis, J&J. We

don't need to do everything alone. And a couple of months ago we announced that we took in a minority investment from Temasek, \$800 million investment for a minority position, given their experience in life sciences, given their position in Asia. So, again we don't need to do everything the same way under one roof. We were willing to bring in an equity investor. We don't have a monolithic approach to how we execute each one. So, at this point the family of products within Google, we're really pleased that they're together. We've got, you asked about YouTube, one ad sales team, one technical infrastructure. There's a lot of logic keeping it together. But we are looking at what makes the most sense for each of the businesses over the long term.

MARIA BARTIROMO: Yes, I want to ask you about what those businesses will look like and how you see them in terms of priority. How do you decide where to allocate money? Because, you know, we know that 90% of your company is an advertising company, right? I mean that's where the bread and butter is. How much can, or how long can you throw money at a business and invest in a business when it's not yielding you any return? And how do you come up with the priorities to, okay, let's focus and invest in driverless cars for example, over something else?

RUTH PORAT: So, the main guiding principle at Google, now Alphabet, is that we remain committed to long-term growth. And that means investing to really lay the foundation for long-term growth. I think of our business sort of as three crests – the first one being the ad search business. And if you go back a couple of years ago, there were a lot of questions which probably seem quaint now. How would Google fare transitioning from a world in which we all lived on

the desktop to a world in which we were all glued to our Smartphone? And what did that mean for search...(Audio malfunction)? The company invested meaningfully in mobile search and I think it's been proven out that we do pretty well in that, but that's crest number one. And we're continuing to invest there. We had our annual developers' conference last week and we talked about the fact that it's not just tech-search going to voice search. Hopefully a lot of you have tried voice search. It's also going to image search where you can literally be going down the street and take a picture of a restaurant, get the phone number, the menu, book a reservation. It continues to transform. So, through machine learning, we're continuing to extend the growth within our core ad search business. We talked a lot about the fact that we've gone from a mobile first to an AI first, or machine learning first world. Machine learning is making your Smartphone substantially more useful every day. I was just in Paris. I was landing and I get a message about restaurants, weather, exchange rates. It can translate anything for me to the extent I'm trying to figure out what I'm actually doing. It is substantially more useful. On YouTube, the watch time, which is a crazy number, a billion hours a day of watch time.

MARIA BARTIROMO: On YouTube?

RUTH PORAT: On YouTube, a billion hours a day. We love all those people. It's incredible. Yes, we're very grateful. But watch time for music videos, 80% of the watch time comes from the recommendations engine where machine learning analyzing a ton of data looks at, well, if you listen and watch that video perhaps you'd be interested in the next one. And, in fact, that's

extending watch time. So, crest one with the right level and intensity of investment in machine learning, we believe we are continuing to extend the growth opportunity there. Crest two, if you want to call it that, is what we call our biggest bets within Google. Cloud, hardware and YouTube subscription. We talked a lot about it on the last couple of calls trying to give people a way to dimension your very important question. And when you think about it, Cloud, some people will say that enterprise is moving to the Cloud, the ability to leverage this incredible infrastructure we have, the data analytics, the security, and machine learning is the biggest opportunity we've had probably in a lifetime and heading towards a trillion-dollar market – still very early days – incumbent on us to invest in the right way to continue to drive our growth there. So Cloud, important, hardware, important, YouTube subscriptions. And the third crest is the Other Bets. It's Waymo, our self-driving car business, and the other series of products and families we have there, life sciences, etc. That's what we're focused on. And our view is that throughout our history as a company, we've invested in things which sometimes seem crazy like YouTube when we acquired it. Actually, people thought it was pretty crazy. People thought what we were doing with Android was pretty crazy. But what we've proven is, I think, that investing with the right focus and intensity yields really long, long-term results and so we're not shy about making the investments that are needed to continue to extend that type of revenue growth.

MARIA BARTIROMO: So, I mean there's Google Maps, I mean there are a lot of things that I guess the company is interested in and have a vision for the long term. I know Larry and Sergey have said we want to impact billions of people. We want global scale. What happens to those

businesses that don't have that kind of global scale, that aren't reaching a billion people, that you are still investing in?

RUTH PORAT: That's a great question. And one of the important parts of the planning process, one thing that I actually found to be even more useful than I expected going into it is when we moved to this Alphabet structure, we pushed the expenses down to the product area leader. So, they had a much better sense of all of the resources they were consuming. There's an approach that was pretty standard in technology companies that you reported earnings on a non-gap basis – you excluded stock-based compensation – when in fact people are our most important asset and stock-based compensation is not an insignificant number. So, we've now put all of the resources into the P&L that business leaders look at and said, okay, rank, try and stack rank what you're working on and is it a big enough opportunity? Is it a distraction? So, is it a distraction or is it actually something that's really important to you? And that is the type of question that we look at. We want to be able to make sure we're putting the maximum resources behind the big opportunities. Some of them will evolve over time. You bring up Maps. Maps is an example where for so long we wanted to see how users use their maps, not clutter maps with ads that aren't useful. And over time what we've seen is when you're pulling out a map, you're probably then searching for something nearby. So, over time you can evolve to a monetization strategy. What we want is to make sure – to your question – that we have products that are useful, valued by ideally billions of people. We actually have now seven products that each have over a billion users. And that's what we're looking for, something that becomes a part of your life. How do

you live without Gmail? How do you live without Maps? How do you live without YouTube? That kind of experience.

MARIA BARTIROMO: And we're asking ourselves that question all the time, given we all have our phones. We're all trying to do everything mobile. And that's what the customer wants. How much of the conversation turns toward consumer privacy in this conversation? Because, you know, we know that, well, you've made some changes at Google in terms of advertising and in terms of sharing lists. People are wondering how much of their lives and their information are known. So, tell us how you look at consumer privacy when you've got so much opportunity to sort of, you have people's identities and privacy out there?

RUTH PORAT: Yes, it is absolutely imperative. The trust with our users is what keeps users coming back, and the vibrancy of the product. So, we believe we do more to protect privacy than anyone on the planet. We give you controls over privacy. We have your activity, you can go on our site and go to your activity or your accounts and you can have control over your data. So, it's absolutely critical for us, of utmost priority.

MARIA BARTIROMO: You made a comment a moment ago about YouTube and the billion hours a day. It feels like the media business is changing so much. The advertising model is changing very much. Tell us how you see the advertising part of the business given that is the bulk of the revenue at Alphabet. How has that changed and how is that dictating the way you are

approaching your business? I was talking to an analyst the other day and he said to me, you know they're writing big checks for content. It's a new game out there in terms of advertising and in terms of media right now. Everybody's in competition – TV, online. How do you see it?

RUTH PORAT: Well, we do believe firmly that a key part of the value proposition is we're investing back into the ecosystem so we do pay quite a bit to content creators because we want to have a very healthy, vibrant ecosystem. What we're also doing is we're able to provide advertisers with a reach that they, you know, the ability to target relative to somebody who is searching for something so you've got the right intent. So, we're able to provide them with a very valuable reach to be as effective as possible to enhance brand, to get brand uplift, to get the reach they want. I think one of the fascinating areas is what do you do with local, local advertising? And how do we think about how useful we can be for the local retailer, the store where all of a sudden you have somebody where we have between Maps and what are they looking for, where are they, what do they want, the ability to help someone get into your store at the time when they're looking to make a purchase. So, we think that it is continuing to evolve. I would say what's fascinating is notwithstanding, for example, the billion hours watched on YouTube every day, or the fact that there are more 18 to 49-year olds watching YouTube videos than most networks or cable channels, the overwhelming bulk of advertising dollars are still offline. And so our view is that we're working closely, care immensely about investing back into the ecosystem, providing a service that publishers need, content creators need, and that provides utility, but there's still more to come.

MARIA BARTIROMO: So, in terms of how the business is changing then, you see the right tools that you can offer customers. I mean that's the key here, the tools that you can actually go back to an advertiser and say, yes, that user bought this right after that ad popped up. This is really the allure.

RUTH PORAT: That's precisely. And one of the reasons that the pace of migration hasn't been even faster given where we're all spending our time is the need to...(Audio malfunction)...So, you're absolutely right, one of the most important elements for advertisers is measurement. And so we've been investing again in the analytical tools that help them really assess what's the brand lift they're getting, in the utility of the ads, what's the ROI on the ads relative to what they're used to?

MARIA BARTIROMO: In terms of content, are you expecting that to take more prominence at Google in terms of having more original content, the way that we're seeing Amazon, for example, do? Is that where this is going?

RUTH PORAT: So, we believe very strongly that we have a differentiated asset with our content creators, our community of content creators, and we invest in our content creators. We announced about a week or two ago a new slate of shows with much higher production quality. That's new for us. But we don't see, at this point, going to the really big, kind of glitzy production, series programs that others have done. We think that with our community, that is a

really potent community with a tremendous following – as I said, over a billion users and over a billion hours watched, and that’s an asset that others don’t have.

MARIA BARTIROMO: Nobody has it. And we’ve seen the YouTube stars being born and go on to great success. Okay, so in terms of the Other Bets, Ruth, let’s talk about that for a minute, because you’ve mentioned machine learning, artificial intelligence. Tell us how that works and what you’re using AI for in terms of operations.

RUTH PORAT: So AI is a term that’s pretty broad. And it really does cover a lot of different areas. I’ve talked about some of them – voice search leans on machine learning, video search, foreign language translation, all benefit again from machine learning. The recommendations engine looks at big data sets and says, you know what, you’ve watched Rihanna and Taylor Swift, you’re probably going to like whatever. And it’s a really potent add-on to serving you what you need a recommendation for the next...It also is really potent in, it’s also really valuable in particular in life sciences and healthcare. We’re really excited about the opportunity to use machine learning to address some really big issues in healthcare. We have a number of different approaches to this. Our life sciences business, Verily, as an example, one of the first things up that they’ve been focused on is diabetes management. And it’s the ability again to analyze big data sets and take medicine from being reactive to proactive. I can look at data and I can assess when you’re in need. And so applying machine learning to life sciences, we think, is a really big area. Another area within health is pathology reports. Even the best doctor can’t see as many

pathology reports as aggregating many hundreds of thousands of pathology reports. And so what machine learning can do is provide a better assessment of what you're seeing to leverage the doctor who then determines, given that knowledge, what should we be doing? There's a whole host of areas within healthcare where machine learning, and again the ability to benefit from large data sets, we think, can be transformative in all elements of disease. In self-driving cars, machine learning is also a critical element of it. And when you think about it, there are over a million people who die every year on the road, a million people, and what we're looking at is the ability to meaningfully improve safety on roads through self-driving cars. My first self-driving car ride was phenomenal. I got in, and we're required to have safety drivers behind the wheels, legislation is still lagging a bit the technology, but safety drivers, so I always tell them your hands have to be up so I can make sure I know what you're doing.

MARIA BARTIROMO: And you're in the back, right?

RUTH PORAT: And I'm in the back. And they're looking at the input from the sensors to do all of the data analysis. And my first question to them was, so, what's the biggest surprise being in a self-driving car? And their answer was the carelessness of drivers, cyclists, and pedestrians. You can see it on these sensors in the way that the human mind can't be running that many sensors at one time. You get distracted by somebody jumping out to the right, are you going to see somebody jumping out to the left? So, the ability to save lives and what I'm also really excited about is transform cities. When you think about the amount of wasted space in parking lots that

we're not going to need if you're not keeping this incredibly expensive asset sitting in a parking lot for the overwhelming majority of time. So, again back to your question, machine learning is a key part of again improving cities and saving lives. We see it cutting across all of the businesses in which we operate. The last and very important one, I've already commented on, but it's our Cloud business. Helping enterprise clients. And one of the very valuable assets we bring to the table for our Cloud customers is the ability to use our machine learning capabilities both to improve the efficiency of what they're doing and the effectiveness of what they're doing. So, on top of our infrastructure, our security, our data analytics, the ability to leverage Google's machine learning capabilities. And I'll add one more on just to underscore that we see this across every element of what we're doing. About a year ago we announced that we use machine learning to address the energy utilization within our data centers. Our data centers are viewed as being amongst the most efficient on the planet and yet with machine learning we were able to reduce energy consumption. And so we're seeing it hitting all elements of what we're doing in the business, both the way we operate our business, the services we can provide to our enterprise customers, and the way we can deliver what you see every day when you pick up your phone.

MARIA BARTIROMO: So many important things that you just said in that last answer. On self-driving cars, I can understand how if you've got a self-driving car it's electronic, it's automated, and you don't have to worry that the person is looking at their Blackberry while they're driving or that the person is tired because they didn't get enough sleep or had alcohol or anything like that. I get that. But what if it gets hacked? I mean what are the downside risks to self-driving cars

with regard to potential hacking?

RUTH PORAT: So most, the overwhelming majority of the driving decisions are made within the car and so protected in that way. And then we have strong encryption that protects any of the messaging that will come from central to the car. So, we clearly, that is a primary concern we start with – safety, safety, safety of the car itself, how responsive and sensitive is the car, but this whole question about the sanctity of the self-driving technology itself is absolutely critical. And it goes to encryption and the way it's structured.

MARIA BARTIROMO: And in terms of Verily and health, I love the idea that sensors can be placed all over your body frankly, not to mention machines, but to try to get ahead of disease. And Craig Venter, who is one of the people who mapped the genome, was with me just the other day and he said I'm cheating death because I am getting ahead of disease, and I notice that, that was a term that Google used as well. Is that the basic premise, just make sure that you are preventing disease and that's how you're getting ahead of disease, because of these sensors? Is that how it works?

RUTH PORAT: Well, there are a host of things that we believe we can address. Saving lives is the goal. But whether it's errors, medical errors, which is the third largest killer of people after cancer and heart disease, errors where you can actually catch the error early because you're looking at large data sets, when you think about the challenge that any doctor has where there

can be so many paths that a disease can follow and you're juggling so many patients at one time, the ability actually to get leverage, operating leverage from the data analysis that comes from machine learning is profound. You look at my comments on radiology pathology reports – the ability again to have a better, higher quality assessment based on all of the data that you're looking at, again leverages the doctor to save lives. And then disease management is more the one about a patch on your arm or contact lenses where I can monitor your glucose levels on a continuous basis. So, a lot of different ways to get to the punch line which is save lives, improve health, be as far ahead of it as possible.

MARIA BARTIROMO: So, is it that simple in terms of the way you come about decisions in terms of how you allocate resources to a certain business? I mean, you know, saving lives, this is something that you want to be committed to and you want to be there, or is it something else that dictates how you allocate resources toward these other bets?

RUTH PORAT: That's a great point. It really starts with do we have a great leader we want to back?

MARIA BARTIROMO: So it's the people.

RUTH PORAT: It is the people, it is absolutely. We start with, do we have a great leader? Are they addressing a big enough problem or opportunity that improves the lives for billions? And

can we use technology to have a 10x solution where we can make a difference? But one of the key elements, and Larry wrote about this when we announced Alphabet, what was he hoping to do? He was hoping to do more ambitious things, but really backing phenomenal leaders. And it really is the talent. When you're trying to change something, or create something that's never been done, or envision where the world will be, it's not a straight line from here to there. So, you need people who are creative, entrepreneurial, scrappy, don't see a wall as a wall, but just something else to deal with. So, it really, it is the team. It is the leaders.

MARIA BARTIROMO: I want to ask you about leadership. When Sergey and Larry first founded this company, people weren't so easy to believe that this was going to be successful. Here are two young grads who have an idea and decide to, you know, go forward with it. You come in. How is it working with Sergey and Larry? Different than what you've been used to on Wall Street? (Laughter)

RUTH PORAT: It's a tad different. They're extraordinary. They're absolutely extraordinary. I mean one of the many things that kept me in banking for so long was the opportunity to work with really bright people and extraordinary clients. What I experience at Google, at Alphabet, is like nothing I've seen. I mean you're dealing with the most extraordinary people across the board. And I'll give you an example. My first week I got an email from Vint Cerf, who many may know was one of the fathers of the internet. And I see Vint Cerf's name pop up, I'm like Vint Cerf, seriously, Vint Cerf? I'm like, of course, I'm at Google. And that's what Google has,

it has PhD geniuses, you know, polymaths in like so many different areas. And Larry and Sergey have this extraordinary intellectual curiosity and extraordinary passion to really make a big difference. And I think it is probably the intellectual curiosity coupled with the ability to execute on it that's transformative, that's led to this magic.

MARIA BARTIROMO: What are their styles and approach toward leading, do you think? And how do they differentiate from other executives you've worked with?

RUTH PORAT: Well, Eric wrote a terrific book, which I'd actually read and was quoting well before I knew I'd have the opportunity to join Google. And he gave, I think, a perfect example where Larry one night was, he was online playing around and he said he didn't like the output from his search. And he just posted it up on a wall and, you know, left it, basically making it pretty clear he wasn't thrilled with the output. I think there was more colorful language. And he knew that with the quality of people they have, they would solve it. They would crack the code with it. And so I think, again it goes to intellectual curiosity, incredible depth, and bringing in extraordinary talent. We actually have three million applicants per year to Google, three million.

MARIA BARTIROMO: To get a job at Google.

RUTH PORAT: To get a job at Google.

MARIA BARTIROMO: Any job, or I mean, three million what? Engineers? No, really, engineers?

RUTH PORAT: Oh, well...

MARIA BARTIROMO: Just to get your foot in the door.

RUTH PORAT: I thought it was a great stat, three million applicants...

MARIA BARTIROMO: It is a great stat. It's a phenomenal stat. I'm just trying to figure out, is that just getting in the door? Because I know it's really hard to get a job at Google.

RUTH PORAT: Yes, that's across any of the, any of the roles at Google, three million applicants per year. And so we have, I think, a really, a special group, but most important I want to go back to your first question. Culture really is that critical. And this notion of transparency, this TGIF tool is so potent to get every voice involved. The other example of that and the way culture expresses itself in our products, hopefully a lot of people here are on Google Docs, and the first time I used it when I was, when I got the offer I grabbed one of my kids and said, hey, I don't know how to use Google Docs, we've got to use Google Docs. And he said, you know, at Stanford there's an expression that every great idea begins on a Google Doc. And the reason is it's all collaborative creation. You're on the Doc and you're literally moshing it together. And it

gives voice to everyone on the team. And I've seen how, not only does it increase productivity, but it gives voice to everyone regardless of level. And that's a fundamental, that's a fundamental view which is there is no monopoly on great ideas. It's not about age. You know it comes from anywhere so you'd better have a culture that is asking for voice from every corner. It's expressed through our apps, you know, Google Docs and sheets and every way we create. It's expressed through the way we work. The notion that you don't need an office. I live in the Cloud. I take my Chromebook and I go from place to place and we huddle in a conference room and we create together. It's really, that's sort of the magic sauce of getting talent in and then unlocking the talent. But I frankly believe that you can do that in any industry in any place. That's why I keep coming back to TGIF or what are the apps that we have. There's a way in particular with millennials of unlocking the energy and the ideas and that's where the, you know, the breakthroughs come.

MARIA BARTIROMO: So, do you think most companies then are afraid to do that? They're afraid to take the risk of telling employees, well, look, take this 20% and work on what you think is important and then report back. I mean it is pretty incredible that Gmail came from the 20%. Is that what's going on? People are not, companies are not risk averse.

RUTH PORAT: I think there are a couple of things. First, I will be the first to say, in TGIF when you're behind the stage and something comes up and you have to address it in front of the company, it's not pleasant. It can be not pleasant. Sometimes it's fantastic. But sometimes it's

not pleasant. I think it is so powerful, though, I would take that every day. I think it's really important. And again, the reason I say I think the financial crisis would have been different is, I firmly believe somebody somewhere on the fixed income floor would have said why do we have that exposure, why is it hedged that way, or just those questions lead to a line of inquiry. You can tell when you're launching a product and people are skeptical. And so even though it can be unpleasant and you'd rather take the note cards and kind of flip down and toss some out, it is hugely valuable. I think the other one is that investing for the long term does require fortitude – that whole short-term-ism versus long-term-ism. To make bold moves you need to meaningfully invest – that's what gives you durability – but it can be tough to do. And I think that it is helpful that we have a history where we've done some crazy things and they've worked out really well. And we know if you looked back 18 years ago when Google was born, the top tech companies back then are not the top tech companies today. And if there's anything we each need to be mindful of, it's that innovation is happening everywhere and we really need to make sure we're investing today for the long term. By the time you wait, and that goes back to my comment about Hank Paulson, if you need the will and the means, by the time you wait, it's going to be too late. These things like self-driving cars, we're planting the seeds today, but to your monetization question, that will take years. That's not quarters. That's measured in years. We think it's a profound opportunity that's going to transform lives and cities for the better.

MARIA BARTIROMO: Do you see a day when the “automakers” will be companies like Google, Uber, Tesla, Apple, and not GM and Ford?

RUTH PORAT: Well, we're working with automakers.

MARIA BARTIROMO: So you need the manufacturing arm.

RUTH PORAT: We're really pleased with our partnership with Fiat-Chrysler and, you know, we've indicated we would be open to others. So, it's evolving. You know I think that our starting point is, again, go to your greatest source of vulnerability. In that area, it's got to be safety. And we've been focused on that for many years now and I think we're ahead of others in safety.

MARIA BARTIROMO: Do you feel that shareholders hold your hand during this stuff, they just believe? You know there are some shareholders that say, well, look, they're not making money in this particular part of the business, but that's okay, I believe in the long-term vision. Or do you feel the same kind of pressure that analysts and investors want information about next quarter today? Is that culture different as well? The shareholder base.

RUTH PORAT: I think investors, there's no question investors have a really important job to do, and we would make it a lot easier if we provided substantially more information all the time. But that doesn't mean it's the right thing for long-term shareholder value. So, one of the questions when we became Alphabet was how much are we investing in these things called the Other Bets. The range of analyst estimates was that we were losing anywhere from \$2 billion to \$11 billion in a year. You could drive, obviously, a pretty large...truck through that.

MARIA BARTIROMO: It's a big range.

RUTH PORAT: So it was, yes, it's a pretty wide range and the answer was about \$3.5 billion. It helped give a better sense about the magnitude of investment and the way we were thinking about it. You know it's my third crescent. And so it was helpful. Does that mean it then makes sense to start breaking it down more. There's no question I get asked those kinds of questions. We get asked that, like what more can we have? We're trying to be thoughtful balancing what makes sense, really thinking about what makes sense for the businesses for the long term. And the main point is we will continue investing for long-term sustainable growth because in our view, as I said, that's the way you ensure a vibrant, healthy business for the long term.

MARIA BARTIROMO: And you could say, look, we'll give you more information but at the end of the day it's working for stakeholders, it's been working for shareholders. So, it's hard to complain that they want more information given the performance has been so stellar.

RUTH PORAT: And we need to keep doing the right things in order to create the businesses for today and tomorrow.

MARIA BARTIROMO: It brings me back to the question that I keep going back to and that is how you decide – there's a question from one of our members that I want to ask you and it is very similar to what we're talking about. Far from search, Alphabet has increasingly made

investments in the life extension genetics related biotech spaces. As investors, we know that nothing destroys shareholder value faster than bad judgment. Do you see Alphabet also investing in developing the moral and philosophical capacity to understand how to responsibly use the new knowledge developed from these endeavors? Can you describe the steps you are currently taking? That's from one of our members from the New York Economic Club.

RUTH PORAT: So a really important question. One of the questions that's often asked about machine learning is how is it applied and the what could go wrong question? And I would come back to what we've already talked about twice. The most important thing is culture. What attracts three million applicants, one of the main things is the ability to have impact at scale, the ability to improve the lives of billions of people, which is the mission of the company, and you feel it on the campus. There is such a passion around doing things to improve services, to improve well-being. That's why there's so much excitement about things like health and self-driving cars along with all of our other products and services. When you have an environment where you have, anybody can ask any question and they do, if we're doing something that runs afoul of that, that ethics question, or people are concerned about it, you would hear about it. And I think that the best answer, and I felt this when I was in financial services, is it has to come back to the culture. You have to have a true north. The true north is repeated over and over again and that's what attracts people. That's what motivates us. So, it's about doing the right thing, improving the lives of billions, which may sound Pollyannaish even as I hear myself say it, but at the end of the day it is so core to how we're motivated to develop products and how we

prioritize, how we make tradeoffs, and we've got a lot of forums where people will speak up if there's anything that's amiss.

MARIA BARTIROMO: Well, I imagine when you are investing in your employees and you've got this tremendous campus and you've got lots of free stuff all around, food and dry cleaning – no, I mean really.

RUTH PORAT: This was all in her video.

MARIA BARTIROMO: It's true. I guess you get them empowered to continue working hard, bringing the best that they can bring.

RUTH PORAT: Yes, and there is also a view that the founders had from the earliest days that people, everyone should be, should have equity and the notion where there's a real alignment of interest. That's the spirit of the place. You know we want to make sure that people love working there and are bringing great ideas, so you're absolutely right.

MARIA BARTIROMO: How much of a turn was this for you? I know that when you were in banking and you were doing the IPO of Google and you were working on lots of technology deals and Mary Meeker really was the expert and she, I know, is a good colleague and friend of yours, were you interested in technology at that point? Or was this, when you decided to go to

Google, was this a whole new sort of sharp turn?

RUTH PORAT: So, I ran tech equity capital markets back in the 90s so that first wave of internet companies, I had the opportunity to work with them, whether it was Amazon, eBay, Priceline, that whole '96, '99, 2000 period.

MARIA BARTIROMO: And at that point we didn't know who was going to be the winners in all of this.

RUTH PORAT: Although Mary was the \_\_\_\_...

MARIA BARTIROMO: Well, she knew.

RUTH PORAT: There would be a lot that wouldn't make it and we tried to have a very high bar as a result. And it goes back to that, again your opening question, I think when you ask what endures, what is your source of vulnerability, in the 90s it was not, it was tech companies not having a differentiated strategy. It was tech companies looking at the internet, this new thing, the internet, and thinking, wow, this is, I'm transformative, when in fact it was really just a modern-day version of the catalogue that we had grown up with. That was not sustainable. So, the question continues to be what are you doing that's innovative and really transformative, that's sustainable, that's changing the way we fundamentally live our lives, the experiences we have

that we don't even know we need until we're given this thing. So, you know, my roots go back to that in the early days out in Silicon Valley, but it's great to be back there.

MARIA BARTIROMO: So, if you had to look at the growth for the industry, or you could look at Alphabet, in the next five to ten years – I know that you're not a short-term thinker and you want to look long term – tell us where the growth is. Is it a three-pronged stool – Cloud, retail, advertising? What does the growth story of Alphabet look like in the next five years?

RUTH PORAT: I wish it were so simple. I would go back to the three-crests that I've described. I think the ad search business will continue to evolve. Again, I gave the example of image search. I think it's magical. When you look at what you can do, you put up your phone and all of a sudden you learn so much information. What's this flower? What's this animal? What's this restaurant? It's like, it's a different world. So, we are continuing to evolve what is search, what is a Smartphone, what is search, what is a recommendations engine, how can I have things that are ever-more useful. I just got an update for my 94-year old dad who has one of our home devices...

MARIA BARTIROMO: Google Assistant.

RUTH PORAT: Exactly. And English is his fifth of seven languages, so he was playing language games with Home which was fabulous for a 94-year old.

MARIA BARTIROMO: That is great!

RUTH PORAT: Yes, it's pretty cool. I couldn't keep up with that. But the language capabilities are extraordinary. If you go to, the next time you go to Beijing, you can actually translate whatever's in the restaurant when you're looking at it saying what is this, what's this menu? It's extraordinary. So that's kind of one wave. And again, when you look at the measurement tools that we're developing to provide advertisers with a better sense of what's the return on advertising, how much of those ad dollars move from offline to online? This next wave, you know, assuming we are executing it well, is, we think, very large. The Cloud, enterprise moving to Cloud is, as I said, about a trillion-dollar market. And it's still very early days. I think when, a couple of years ago there were concerns about a whole host of elements, could I let go? But now the ability to actually have this efficiency, this effectiveness, the data analytics, and the very potent machine learning is transformative, and it's across industries. So, we do view that as very sizable. And, you know, I've already talked about the various crests, so I think you'll see that play out and I hope to see that play out in an exciting way. Hardware continues to be an opportunity for us to give you the best experience. Hopefully you're all switching to pixel phones, or not switching, already have. I'm not very good at jokes, I can tell, I can't even get a response here. So, you can see the best of hardware and software on these phones. And then this next wave, you know, I can't even begin to fill in what we can do with life sciences and self-driving cars amongst others, but it's very early days. I want to be clear. I'm not suggesting this is a tomorrow thing. We're looking and investing for the long term because we'll otherwise wake

up in three to five years and wish we had.

MARIA BARTIROMO: Do you expect to be acquiring in those areas, or will that be organic growth?

RUTH PORAT: We have used acquisitions very effectively over the years. YouTube was an acquisition. Double-Click was an acquisition. Maps through acquisition. So, we view acquisitions as very additive. But you can also make mistakes on deals and so we have high bar. The bulk of the acquisitions that we've done recently have been to support our Cloud business. Again, it's such an important area and filling in functional needs, whether by industry or other areas. They've been smaller, but really valuable add-ons to what we're doing in the enterprise area. And so, we'll continue using acquisitions. As I noted, we do have a decent amount of cash and the capital framework for that is primarily organic growth in acquisition and then we look at how much is available, you know, what's the buffer that we then have? But we'll continue to use acquisitions. I think just because you have the capacity doesn't mean one should do a deal. It needs to be the right deal.

MARIA BARTIROMO: Ruth, thanks so much. Congratulations to you.

RUTH PORAT: Thank you all. Great to be here. (Applause)

CHAIRMAN TERRY J. LUNDGREN: Thank you both. Thank you both very much. You know when we started talking about this event, this was going to be a breakfast event for about 75 people. And it started out that way, and in about an hour and a half, 75 people responded. And so, we had to coax Ruth into a lunch with a little bit more space, a little more room. And as you can see, they're out into the hallway. So, very interesting conversation. Thank you both. Thanks, Maria, for bringing out all of the valuable information that Ruth had to share. We have another luncheon coming up this Wednesday. Howard Schultz of Starbucks is going to be our guest at that time. I hope you'll all come. There are tables still available if you'd like to join us. And then on June 1 we have a breakfast with Federal Reserve Governor, Jerome Powell. On June 15, we have Dr. Craig Thompson, who is a President and CEO and board member of the Economic Club of New York, and of course CEO of Memorial Sloan Kettering Cancer Center. And then on June 22, we have dinner with Jeff Immelt, who is the Chairman and CEO of GE. So, lots on our agenda. Thank you both again for a great presentation, and enjoy your lunch everyone. Thank you. (Applause)