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Ruth Porat, CFO, Alphabet and Google at the Morgan Stanley Technology, Media and Telecom Conference on March 3, 2021

Brian Nowak (Morgan Stanley): Good afternoon, good morning, maybe good evening, wherever you are. We are thrilled to have you all on day three of the Morgan Stanley 2021 Virtual TMT Conference. This afternoon we are joined by the CFO – Ruth Porat, the CFO of Alphabet. Thank you so much, Ruth, for joining us.

Ruth Porat, CFO Alphabet and Google: It's great to be with you.

Brian Nowak (Morgan Stanley): There's always a lot of exciting things going on in the ad markets and at Alphabet and the evolving, really, overall world. So we always love to sort of sit down and chat with you about the latest and greatest. Before we get started, I do have to start with all the disclosures.

Please note that all important disclosures, including personal holdings disclosures and Morgan Stanley disclosures, appear on the Morgan Stanley public website at www.morganstanley.com/researchdisclosures. If you have any questions, please feel free to reach out to your salesperson. Some of the statements that Ms. Porat makes *[sic]* [may make] today may *[sic]* [could] be considered forward-looking. These statements involve a number of risks and uncertainties that could cause actual results to differ materially. Any forward-looking statements made by Alphabet *[sic]* [Ms. Porat] today are based on assumptions as of today, and Alphabet undertakes no obligation to update them. Please refer to Alphabet's Form 10-K for a discussion of the risk factors that may affect actual *[sic]* [its] results.

Ruth joined Alphabet as SVP and CFO in May of 2015 and has held the same title at Alphabet since its creation in October of 2015. Prior to her time at Alphabet, she was an Executive Vice President and CFO of Morgan Stanley, she is a member of the Board of Directors of the Blackstone Group Inc., the Council on Foreign Relations, and the Stanford Management Company. Ruth, it's always great to sit down and talk, even if it's virtual this year.

Ruth Porat, CFO Alphabet and Google: It's wonderful to be with you, and hopefully everyone out there is staying safe and healthy. Good to be doing it this way rather than trying to get us all together.

Brian Nowak (Morgan Stanley): It's amazing what a difference a year makes. And as we were just saying, hopefully one year from right now we'll all be together in San Francisco.

Ruth Porat, CFO Alphabet and Google: Well, I think we can all remember probably the last event we were all together in was your event this time last year, and then immediately started moving to work from home. It has been quite a year, but great to be with you.

Brian Nowak (Morgan Stanley): It's been quite a year. There's a lot of goings-on, a lot of topics to talk through. So I wanted to sort of just start with a high-level discussion around how

things have changed and kind of the priorities for the company. You're approaching your six-year anniversary now at Alphabet in a couple of months, and some things have changed: we've got new revenue and segment disclosures, we've got more capital returns. But there are some factors that don't change: still investing for long-term growth, driving innovation, et cetera. So maybe talk to us – here we are, March 3rd, 2021. What are sort of, in your mind, the key priorities for Alphabet heading into '21?

Ruth Porat, CFO Alphabet and Google: Well, thank you for the way you framed it. I do feel like the changes we've made over the past six years have really enhanced our overall execution. At the core, we still remain very focused on prioritizing investments for long-term value creation. And I would say that if there are two themes that we keep coming back to – first is the importance of AI. You can see it in everything from what we're doing in Search all the way through to Cloud. Our view is that it enhances our ability to deliver for users, to deliver value. A couple of years ago, Sundar talked about the fact that we had moved to AI-first and that certainly is reflected in capital allocation, the way we're thinking about it.

The other that we talked about on the earnings call is really the trends that we saw going through COVID, and that's the acceleration of this digital transformation. Everything from how we see commerce, to the way people consume content, to the way we're doing this conference today, to the way we're all working. And so we've really spent time thinking through what does that imply for investments, the pace of investments, so we can maximize the opportunity there.

Beyond investing for growth, as we've talked about at prior conferences, we focus on where can we optimize resources within any particular product area, what kinds of investments are key to really fortify operational excellence, everything around our technical infrastructure, privacy, security, content. We look at, obviously, acquisitions and investments and then finally, capital returns. So that's the general framework for investing.

Brian Nowak (Morgan Stanley): It's a good perspective. It's a good starting point as well because you talked about the digital transformation that came from last year. So I guess maybe – I was curious about a little look under the hood about how last year's acceleration in digital transformation changed your internal priorities and just changed your approach for what you really need to focus on to continue to drive the company and help advertisers coming out of the COVID situation.

Ruth Porat, CFO Alphabet and Google: Well, probably the easiest way to think about it is going through a couple of the product areas. So, for example, one of the exciting upsides we see is the opportunity in e-commerce. And I know you're familiar with the recent Commerce Department data that suggests that e-commerce in the fourth quarter of 2020 was up 30% versus the same quarter last year, whereas offline retail was up only low single digits. And we're certainly seeing the same in our business.

[The year-over-year growth rate in retail searches in the fourth quarter of 2020 was more than 3 times the rate as compared against the same period the prior year.¹] And so what we've been focused on is how can we help retailers with their physical store presence better connect with

¹ This sentence was corrected to fix a misstatement.

consumers, really address what is it consumers need, whether you're looking at Search or Maps, some of the changes you've seen. Like, what about curbside pickup, or what about hour changes, any of the delivery issues? How can we make our product evermore useful and helpful both for consumers and for merchants?

On the Cloud side, we've similarly seen a real acceleration and some exciting innovations coming out as a result of COVID. Most recently, we talked about our Intelligent Vaccine platform in which we're looking at how to help states with supply chain management so that they can get the vaccine to the right place at the right time within a particular state. We're looking at the sign-up process. Early in the COVID – kind of moves, what we saw was the utility of our Cloud, our team, to help states as they were thinking about how can you better provide services that constituents need.

So, for example, what about those unemployment disbursements, answers to questions? And then another great example for not only governments but businesses is what can we do on our customer support? And so we innovated with AI – what we call contactless customer support. So in multiple languages, we can do triage on incoming questions and then direct those questions to humans when needed but, otherwise, answer them. So those are the types of examples. And I think we've seen an efficiency and an impact with users. It's what's wanted, and so hard to imagine much of this does not endure even as we come out of COVID.

Brian Nowak (Morgan Stanley): Yes, you continue to pivot and evolve to serve the users and in some cases help society with the situation around COVID, et cetera. That's very good context. A little bit of a specific question on disclosure. I feel like – I feel like every year we – disclosure comes up in the Q&A. And this was – this was a big year for disclosure. I know in the past, you've talked about how, as Alphabet changes the way it runs its business, disclosure can evolve as well. Now we have Google Services, Google Cloud, and then the Other Bets segment reporting from a full segment reporting basis on GAAP results. I guess the question I wanted to ask you is, walk us through what drove the decision to give us a little more color on the Cloud segment. And what's the key takeaway you're looking to really communicate to Wall Street with that disclosure?

Ruth Porat, CFO Alphabet and Google: Well, I think you sort of answered it in the question, which is this has been a journey, and we've been very focused on looking at ways to continue to expand disclosure. And it very much reflects the way we're running the business. So, for example, one of the first – first changes was really to emphasize GAAP results, de-emphasize the non-GAAP reporting. And in our view, that was consistent with the way we were really trying to focus people internally. And, in fact, there was as much benefit internally as I think there was externally, because it just put a real spotlight for every leader on the full set of resources that they were using.

And last year when we moved to revenue disaggregation, really breaking apart within Search and Cloud revenues, I think it was, again, reflecting how we're running the business and helpful to put sort of greater transparency and spotlight on the businesses. And that then led us to this most recent breaking out – Google Services and Google Cloud. And I think when we're looking at resource allocation and the pace of investment within each, that's the lens that we put on it. So useful there and I think also useful for stakeholders to see the pace of investing as we're on

this journey to profitability over time.

And I would say it's not only as it relates to financial reporting. We're really proud of the supplemental reporting that we're doing. So, for example, this week, we just issued our Environmental Report on all of the work we're doing around climate change, which we think is extraordinarily valuable. And so we also supplement a lot of the ESG reporting in alternate forms.

Brian Nowak (Morgan Stanley): That makes sense. So since you gave us more color on Cloud, let me dig into it a little bit. So we now know that Google Cloud is about a \$13 billion annual revenue business, growing in the mid 40s, 45, 46%, and the operating losses are about \$6 billion a year. Now, GCP is a subset of that, we think growing materially faster than the average for the segment. GCP and public cloud – it's a rapidly growing business – still early in the industry, we think, but it's very competitive.

And so my two questions around GCP are, number one, talk to us about the primary ways GCP differentiates itself versus the competitors. And then number two, as you sort of think about the next one to two years, talk to us about some of the key investments the company looks to make in GCP just to continue to differentiate and drive that growth.

Ruth Porat, CFO Alphabet and Google: So overall, really excited having Thomas Kurian as our partner leading this effort and really the trajectory that he's built. We try to take you through a lot of that in the earnings call. I've been doing a bunch of customer meetings with him. And I would say what's gratifying is just seeing the level of engagement and really getting to kind of – hearing firsthand from them what is it that are the differentiators.

And I would say, the key one starts with data and analytics. It's clearly a critical part of the transformation that a company goes through and our solutions are helping customers just get better insight, which helps them better understand what their customers want, how to respond, how to improve their products. It's just these real-time predictive analytics. I think the second thing is multi-cloud. Companies want to work with multiple cloud providers. We hear it time and time again, whether it's for risk management or other reasons, they want to benefit from the best technology. And we've made it easy to do that. I would say the third key element is tailored industry solutions, and in part, that builds off of our AI capabilities and expertise. It also builds off of a lot of what Thomas has done, really building up these industry verticals with strong leaders globally.

But so, for example, in financial services, when we're able to go in and address the heart of what our customers want – potential customers, customers want – in areas like AML, KYC, anti-money laundering, “Know Your Customer,” core risk analytics, and it benefits from all of the technology that we have. We're able to help them with product solutions like lending processing. These are tailored industry solutions, and that's true across the industry areas, and that's one of the main things that he's been really addressing. You see it in retail. You see it across the board. So those are probably the key areas. And then in terms of investing, as we've said on the call, we continue to invest given the scale of the opportunity that we see here.

Brian Nowak (Morgan Stanley): Got it. And most recently, the backlog figure, the \$30 billion

backlog figure, I think really stood out to a lot of investors. Certainly bigger than I had. It was up nearly 200% versus 2019. And you had mentioned on the call that deals over \$250 million more than tripled in the fourth quarter [sic] [2020]. I know there's sort of a lot of incrementality and sort of basis point improvements around the business, but is there any sort of unlock that you would point to in that fourth quarter that really drove that backlog that you could maybe extend going forward or nothing specific to call out?

Ruth Porat, CFO Alphabet and Google: Well, I think that one of the key things that we've been talking about for some time is we are building on each step that we've been taking on this journey. And one of the most important elements that we've talked about was that we were basically underweight in our go-to-market organization and really needed to scale it out, and we have. I mean, that was one of the key things that Thomas has been driving. It's about the leadership team. It's the specialized industry sales teams globally that I mentioned. And it's, frankly, the sheer scale to be able to cover all of the ground.

And we're on track to meet our near-term goal of tripling the sales team. We're also seeing a real strength that comes from our broad network of partners. We've talked about that quite a bit. We've really been growing the channel partner ecosystem. And then I would say that – it starts with that, but we have to be able to offer the tailored solutions and products that our customers want. And so building up the industry verticals and the real clarity of focus that Thomas has brought to that would be the second element. And those then translate into these meaningful long-term commitments. And as pleased as we are with the backlog and the growth, I never like to say you can extrapolate off from that. It was an extraordinary year, but really pleased with all that the team has been doing.

Brian Nowak (Morgan Stanley): It should be exciting to watch for the rest of the year and into '22 and beyond. Now, the other side of the Cloud disclosure that we – which showcases – in my mind showcase how profitable core Google Services businesses are. By our math, it looks like Search could have around potentially 40% GAAP margins – so a pretty strong business. I guess my questions on this are: as you sit there on that core Search business, talk to us about some of the key areas you look to deploy capital from an investment perspective, just to continue to provide more value for users, increase utility there and then also continue to provide more value for your advertisers on the Search business.

Ruth Porat, CFO Alphabet and Google: Yes, it's an extraordinary business and one where, as we've talked about on many calls, we're maniacally focused on innovation on behalf of advertisers, users. Every year we make thousands of improvements to Google Search. I still find it stunning we see billions of searches every day, and 15% of those are new for us, and just the ability to be able to be as responsive in a high-quality way as we are goes to the innovation and effort that the team's putting in.

We talked a couple of times on earnings calls about, I think, two really exciting innovations that sort of go to this point, BERT and Hum. And I pick those and keep coming back to them because I think BERT is a great example of kind of deep science capabilities, computer science capabilities, really helping improve natural language understanding, making our responses so much more relevant, more profound. We now have near-human understanding of queries.

And then you take at the other end, still complex, but Hum which is very much sort of the “Googley,” fun, quirky – you can hum a song, and even if you can't hum, and I can't hum very well, we can tell you what song it is that you're humming. And so it's that kind of keep it fun – keep it fun, keep it fresh, and keep it relevant that's driving the engineering team.

I would say on Ads more generally, we're constantly looking for ways, very much to your question, to improve both the user and advertiser experience. And it is all about getting better answers to queries. It's things like our Responsive Search Ads, everything that we're doing around that. But it's a constant set of innovation, and that's the dual lens, better for users and advertisers.

Brian Nowak (Morgan Stanley): And on the advertising point, Search is a \$100 billion-plus annual business, still growing in the high teens. It really is – it's an incredible recovery – in my mind, still coming out of a recovery – that big, growing that fast. One of the questions that we sometimes wrestle with is the addressable market for Search dollars. How do you think about the addressable market for Search or your overall advertising dollars to go after? And how has that overall TAM of dollars changed over the last couple years?

Ruth Porat, CFO Alphabet and Google: So when we think about the overall opportunity, as we've talked about before, we're not just thinking about the traditional ad market, which exceeds \$500 billion globally. We're also very much focused on below-the-line marketing, things like promotional pricing, product placement, and how to unlock that. And as we talk about quite frequently, more than 80% of commerce is still offline. And even with the acceleration in e-commerce that we've seen, there is still a sizable opportunity, and one that we're seeing is coming on at an accelerating pace, and I think, in particular, for local advertising creates a really exciting opportunity. So what we're looking at is every opportunity where we can drive additional ROI for advertisers, that's – that is what we should be doing and where we're focused. But we think there's quite a bit of runway here.

Brian Nowak (Morgan Stanley): A lot of runway. That's a big market when we start to include marketing services and everything, so there's a lot of runway. \$100 billion is small through that lens, in my view. Last one on Search. I thought your comment earlier about the 3x increase in retail queries is helpful. So our AlphaWise survey data show that 50% of people who are doing – in their e-commerce research process still start on Google Search.

Now, it shows your strong position in the retail category, but I think if we would have done that a few years ago, we probably would have found that the number was about 70% of people start on Google Search in the retail category. So I guess my questions are, number one, your reaction to those numbers and that trend. And then, secondly, how do you think about the e-commerce Search product evolving the next couple years just to ensure that you stay at the top of the funnel within that e-commerce search process?

Ruth Porat, CFO Alphabet and Google: Well, in terms of the opportunity, the impact for us, as we said on the earnings call, retail was the largest contributor to year-on-year growth of Ads in Q4. And when we launched the new Shopping strategy last year, the whole goal about – and the impetus is to really make Google the best place for users to start their journeys and to make it the best place for merchants to connect and – to connect with users. And that's regardless of

where the final purchase is, whether it's on our site or the retailer's site. It's about bringing users and merchants together.

And so we started last year with free listings and zero commissions and really looking at how to lower barriers overall for retail. And our whole approach is to provide, really an open ecosystem that works for every kind of business. And we think that providing, basically this best place to bring users and merchants together really for all types of merchants, from small to large, creates a real kind of productive flywheel for all. And so that's what we're looking to do, is continue to make Shopping more helpful. And we see a – kind of a real need for the approach that we're bringing to the table here.

Brian Nowak (Morgan Stanley): All right, makes sense. Let's talk about YouTube. Some of the – we had revenue disclosure about it earlier, and it's a great trend that we all like to really pay attention to. Really strong 2020 results out of YouTube. Ended the year, \$20 billion of revenue, growing 30%. So sort of a question on YouTube similar to Cloud. If you look back at 2020, what are sort of one or two of the biggest improvements you saw from a YouTube perspective to drive that strong revenue growth? And then as you look ahead, what are the areas where you look to invest and sort of improve the overall YouTube product for advertisers?

Ruth Porat, CFO Alphabet and Google: So we're – we're very pleased with the execution of the YouTube team and all that YouTube is doing. We've talked a lot over 2020 and prior about direct response and the extraordinary growth of direct response. And as I recall Philipp said on the last earnings call, that was essentially non-existent three years ago, and now it's one of the largest and fastest growing ad offerings on YouTube, and it provides precisely what people want: this sort of tailored call to action right at the right time. And it's enabling us to unlock opportunities to reach audiences with great video campaigns.

And so that, to us, has been a tremendous add-on to what continues to be strong, and that is the whole brand advertising opportunity. And that goes to what we've talked about for so many years now, which is if you look at the extraordinary demographics of YouTube, there is no place that offers advertisers that kind of reach. And so, again, the team continues to look at different ways to provide more experiences for our creators, and, therefore, continue to be kind of the prime destination point. So, yes, pleased with what they're doing.

Brian Nowak (Morgan Stanley): And the users on YouTube, they continue to find more and more ways they can post content and they can engage with the platform and YouTube Shorts is sort of the latest iteration of this. I think it's first in India, now out of beta in the U.S. This is your – the short-form video product. Seems like it's been doing pretty well. You said 3.5 billion daily views despite it only having launched in September.

So I guess the question on this product is: there's a lot of platforms building out short-form video offerings. The first one is, how do you think about YouTube Shorts differentiating itself from some of the competitive products out there on other platforms? And then secondly, as you think through potentially monetizing that, are there any sort of structural hurdles or barriers that could make monetizing this short-form video content more difficult than other forms of engagement you're already monetizing?

Ruth Porat, CFO Alphabet and Google: So it's a great example of continuing to evolve the product. And very much to your question, what we've seen is that more people want to create content on their phones and in these kind of bite-sized snippets. So that's why we're really focused on giving creators more video editing tools and giving them another way to reach people. The early beta in India was helpful as we were looking at creating new tools to build this out, and the take-up was – we were very pleased with the take-up, to state the obvious. And so we're looking to beta in the U.S. soon. And as far as we're concerned, there's quite a bit of opportunity. It's just an example of continuing to evolve the product.

Brian Nowak (Morgan Stanley): I'll have to stay tuned and post my own YouTube Shorts. The other aspect of YouTube – it's sort of the debate between subscription and ad-supported. And I think there's been some pivoting in subscription versus ad-supported products over the years. Now you have 30 million Music and Premium subscribers, 3 million YouTube TV subscribers. I'm one of the happy subscribers to that product – actually, to both products. I guess the question is sort of: how are you thinking about, philosophically, continuing to add more value to that consumer subscription product to make it stand out versus the ad-supported side to kind of drive that subscriber base?

Ruth Porat, CFO Alphabet and Google: Well, so, the main thing kind of to your question, YouTube remains primarily an ad-supported business. And the genesis around subscription was really to give users added choice in the case of YouTube Premium, and YouTube TV is clearly a differentiated offering. But YouTube is primarily an ad-supported business. And on YouTube Premium, what we found is there's a decent group – sized group that wants the YouTube experience, including ad-free viewing and the ability to download songs and videos. And this also gives the music labels added revenue streams. So it is additive overall to that ecosystem.

And we've been ramping from five countries in the beginning of, I think it was 2018 to about 95 today. And it's just – it's filling – it's filling a need. But, as I said, we're – continue to be primarily ad-supported. And then on the YouTube TV side, as we've talked about, our view was that this was an opportunity for us to really leverage the best of YouTube technology to the TV experience. So giving people more tools – unlimited DVR, the ability to view key plays, to hide spoilers, all sorts of things that sort of – like applying that YouTube magic to the TV experience.

And then the team has been focused on how do we have a wide breadth of sports. Look forward to when all of that is actually being played live completely. But, again, it adds to what is it that people are looking for. And we're excited about the way they've been able to grow the business and differentiate it. More than 3 million paid subscribers as of the third quarter. We haven't updated that number yet. But it's really about trying to give an alternate experience to people.

Brian Nowak (Morgan Stanley): You've really done a great job at getting more into the living room. You think about from the subscription products and even the YouTube ad-supported on the big-screen TV. I know when my kids run up to the television and bang on the flat panel to try to skip the ad, they think it's touch-screen, it just tells you how the next generation is just being conditioned differently about how they consume video, and YouTube is driving that.

Ruth Porat, CFO Alphabet and Google: Yeah. And to your point, I mean, TV is the biggest – that's the biggest growth area that we've seen, the screen. And the opportunity to deliver this better experience is what we've been focused on doing.

Brian Nowak (Morgan Stanley): A couple of questions on opex and sort of levels of investment. 2020 was a unique year in a lot of ways. Some of the expense lines, just given the situation, were lower when we think about travel, entertainment, advertising, promotional expense, et cetera. We also talked earlier about some efficiencies and always focusing on efficiency. So I guess the question is, as we look into '21, how do you sort of compartmentalize the 2020 savings between structural changes to be more efficient as opposed to just more temporary when the world does come back to normal soon?

Ruth Porat, CFO Alphabet and Google: Yes, it's an important – very important question. Last year as we were going into the pandemic, we – our view, not knowing the course of this disease, our view was we should make what I described as tactical adjustments. We pulled back on the pace of growth in quite a number of investment categories. And we maintained that discipline throughout 2020, again, just given uncertainty about the path of the disease and the implications for it. And, in part, that's what you saw in the fourth quarter operating margin, and then layered on top of it was the stronger revenue performance.

And as we look forward, as we're looking into the 2021 planning, really kind of going back to your first question, when we look at this acceleration of the digital transformation, the implications across so many areas for us, our view is that the best way to drive shareholder value is investing to support the opportunities that we see. So I think we do see tremendous opportunity. We're looking at making sure we're doing it judiciously, but we're investing to support what we view as really a kind of key inflection point in some of the opportunities.

There are some areas, to your question, which are sort of very different, 2020 to 2021. If I go to, for example, what we did in real estate. So the capex line overall, there was a real pull-back in 2020. We started actually right at the front end of the year, really turned – slowed down any acquisitions. And then as COVID hit, we had to slow down the pace of even our ground-up development and fit-outs just with the lockdown everywhere. So as we're coming into 2021, I tried to make sure this was clear on the earnings call as well, we're picking up again the pace of our ground-up development. We've got projects going on – really around the globe as well as the fit-out. So you'll see a big increase in capex. But, fundamentally, it goes back to the same rigor that I talked about in your first question.

Brian Nowak (Morgan Stanley): Investing to realize a lot of the opportunities you have, I want to ask you about a couple of those. Discover – Discover and Discovery Ads and then “the Map.” Let's start with Discovery. So we often write about how engagement and user bases are sort of the foundation for monetization. I think you said before that Discover has 800 million users on it. You started to roll out some ads around that product. I guess the question is: what have sort of been some of the early learnings from those ads? And how do you think about Discover sort of fitting into the suite of ad products that could be different than Search or different than YouTube?

Ruth Porat, CFO Alphabet and Google: So, Discover has grown rapidly since we launched it

three years ago. And what we're finding is people love how we're surfacing relevant information, great visuals, all on a queryless – queryless feed experience. And so, the response there has been very positive. And naturally some of the experiences are commercial, so it does create an incremental opportunity. And we did make Discovery Ads generally available last year. It's already reaching up to 3 billion people across Discover, YouTube, and Gmail worldwide. So advertisers love how we're able to really help support and drive their performance objectives by matching their premium creatives with Google intent on these queryless surfaces. So we're pleased with the addition.

Brian Nowak (Morgan Stanley): We'll see how it layers in over time. And “the Map.” I know we've talked about this before, how I still do think that the Map is the most under-monetized asset that I cover across the – all of the companies. It's a utility where the monetization switch hasn't been flipped.

Ruth Porat, CFO Alphabet and Google: We're working on it.

Brian Nowak (Morgan Stanley): You're working on it. Exactly.

Ruth Porat, CFO Alphabet and Google: You keep asking.

Brian Nowak (Morgan Stanley): It's a knob. It's more of a knob than a switch. I just have to turn it. So yes – so early learnings as you've been turning that knob – what's resonating well with it, with advertisers and sort of how are you thinking about sort of balancing the advertiser opportunity versus any user disruption or backlash from users?

Ruth Porat, CFO Alphabet and Google: So it is – Maps are a truly indispensable product for over a billion users globally. I would say one of the things we're most proud of was the importance and relevance of Maps throughout the pandemic and all that we were able to do, in particular, for small businesses. One in three small businesses said they would have failed without digital skills. And it was really the opportunity to be able to connect with customers. I think I've already talked about between Search and Maps and the changes that we made, if you were online, if you were – if you had those digital skills, you could pivot and you could remain connected with consumers. Consumers could find what they needed. And to us, that's a really important statement and ties so much into all of our Grow with Google digital skills training program. It's an area we're really proud of.

And so, kinds of things that we've done is just all of the incremental features, which, as I said, we think that some of these behaviors will endure. I see myself, I can't imagine not wanting to continue to just – get my favorite, whatever, kind of going online and picking up, and life is much easier. And so what the team has been doing is making thousands of improvements to business profiles. And so we think, again, the impact, the relevance, and then we just go back to that extraordinary statistic about it was a survival tool. And I think it will continue to be something that helps, in particular, small businesses thrive even as we're coming out of this painful period.

Brian Nowak (Morgan Stanley): Wow. We'll keep watching it. It's an important utility for SMBs. I want to ask you about another dial, the repurchase dial. So we saw Alphabet buyback

22 million shares in 2020, 15 million shares in 2019. So the actual share count is shrinking about 1% per annum over that period, even after the stock-based compensation. That's a great start. The question is: Alphabet has \$135 billion of cash on the books – by our math, \$50-\$60 billion in free cash flow to be generated in the next couple years. Philosophically, just talk to us about how you're thinking about capital returns and continuing to return capital through buybacks or dividend, et cetera.

Ruth Porat, CFO Alphabet and Google: Yes, so we are very mindful of the fact that it does help create incremental value for shareholders. And I've described this as a journey, and I'm really pleased that we've been able to increase it as much as we have. It was \$18 billion in 2019, \$31 billion last year. And appreciate, also your point that notwithstanding the fact that we increased the share buyback program, our cash balance is up. So we do have \$18 billion of authorization left on this current program and very much appreciate that it is additive to what we're doing on the operating side.

Brian Nowak (Morgan Stanley): All right. We'll stay tuned. One of the areas of investment I do want to come back to is India. It was interesting to watch how Big Tech evolved in India even throughout last year. It's an important market for Alphabet – hardware, payments, cloud, commerce, there's a lot going on. You've announced you're going to invest \$10 billion in India over the next five to seven years – you've invested in Reliance. That's a lot. And so I guess the question on India is: just talk to us about sort of the big picture vision for India and how it fits into the Alphabet ecosystem the next three, five, ten years.

Ruth Porat, CFO Alphabet and Google: Yes, so overall, the statements that we've made and the magnitude of the intended investment underscores our confidence in the future of India and its digital economy. And when we step back and say – okay, so where are we focused – first, it's enabling affordable access to the internet and information for everyone in India in their own language. Second, it's building new products and services that are relevant to India that are bespoke to India, whether it's in education, or health or agriculture. Third is empowering businesses as they're embarking on their digital transformation. And then, fourth, it's all of the work that we're doing in AI for social good. We've done a lot on accessibility and education, on agriculture, the environment, climate, flood prediction. And so we think there's a sizable opportunity in a growing economy.

And our first investment, as you said, in Jio, Reliance Jio, we're excited about it because what we're doing is we're jointly developing an entry-level, affordable smartphone that will better serve the millions of users in India. And we believe this unlocks new opportunities and really helps support the ecosystem of applications and supports innovation in India and supportive of the Indian economy.

Brian Nowak (Morgan Stanley): A lot of growth. It will be exciting to watch it develop over time, as you really drive and enable that development in the country. Got to ask about hardware. We've seen the strategy pivot a few times over the years between Motorola, Pixel, HTC and now Fitbit. I guess the two parts to this question are: one, what have sort of been your learnings on areas where you can succeed in hardware versus areas that are more difficult? And then just philosophically, just remind us, why is hardware so important and to have a big presence in the overall Alphabet ecosystem and its relationship with users?

Ruth Porat, CFO Alphabet and Google: So the two primary goals are really to drive computing forward and to guide our ecosystem. And in terms of computing as we've talked about quite a bit, this really goes to our focus on what we describe as ambient computing, which means really when technology can be evermore useful for you, wherever you are, following you from one place to another, devices basically fade into the background and AI is assisting as you go from home to car, wherever. And so it's this seamless experience that really brings in the best of what we're doing with software and AI as well and we think is – plays to very much what Google does well.

And in terms of guiding our ecosystem – we've talked about this for a very long time – that was the impetus for the original hardware line. It was to help our ecosystem really see what our vision is for what can be delivered. And you're absolutely right, these are hard areas that take time to solve. And that's where the team is very much focused, whether it's all of the work and investments in silicon or what we're doing with cameras or displays. But the view is that this is an important part of where the world continues to move. And Fitbit fits in extremely well because for us it's about making health and wellness kind of – being evermore responsive and supportive of what it is that users need. So we're excited that we've finally closed and are working closely with them.

Brian Nowak (Morgan Stanley): Integration. One year ago when we were – we were hanging out at the Palace, you announced a Waymo – the press had a Waymo capital raise in it. You were somewhat ahead of the curve there, as you often are, where now autonomous – there's a lot of excitement around autonomous in the overall markets. When we look at GM, GM Cruise's raise; Uber is selling its autonomous group to Aurora; pull up the Tesla share price.

In my mind and in my model, Waymo still seems to be underappreciated from a valuation perspective. So I guess two questions are: how do you think about potential further capital raises or capital infusions on the Waymo side? And any updates on progress there on Waymo One or other ways we can sort of think about progress that that business is running through?

Ruth Porat, CFO Alphabet and Google: So with Waymo, as we've talked about many times, we're taking a very long-term, iterative approach to scaling a safe, autonomous technology responsibly and safely. And we are proud that we're the only autonomous driving technology company to be serving hundreds of fully autonomous rides per week. In other words, there is no Waymo representative in the vehicle.

And as in your question, we see a number of opportunities coming out of that. It's how to move people, Waymo One, how to move things, Waymo Via, and we think that there are – that they both offer extraordinary opportunities. In terms of the execution priorities, first and foremost, as we've talked about repeatedly is just the ongoing improvement in technology as we test in different geographies, urban and suburban, different weather conditions. It's really trying to find the corner cases when you're driving and just continuing to kind of go to the more extreme cases, the long-tail of driving challenges.

We recently started employee testing our fully autonomous service in San Francisco. We're excited about that. And so that's sort of the heart of what we're doing. On top of it, we're

focused also on operational effectiveness – how do you actually run an entire service and all the component parts to it. The team's working closely with regulators, federal, state and local to really pave a path forward. And then we're doing a lot of work on just what is the consumer experience like – making drop-off and pickup as delightful as possible. And so those are sort of the core elements.

Brian Nowak (Morgan Stanley): Two more for you, one more on Other Bets and then one last big picture one. Just on Other Bets, it does come back to a little bit of a value-creation opportunity. We've told you about the other raises we've seen in autonomous. There's been some press reports around Verily driving toward an IPO, et cetera. Maybe just talk to us philosophically about how you're thinking about the Other Bets line the next two, three, four years.

Ruth Porat, CFO Alphabet and Google: So no change in our thinking. We're trying to make sure we're investing with the lens to how do we create shareholder value over the long-term. We're increasing our investments in some areas where it makes sense. We're pulling back or even shutting down, as in the case of Loon, where it makes sense. We have established what are the milestones that will help guide us and test us as we're going through it. Bringing in external capital has been helpful, as you said, in Waymo and Verily. And in terms of an eventual IPO, I've frequently said there's no monolithic approach. We want to figure out what really maximizes value for everyone over the longer term. So we're open and continuing to try and build great businesses at this point.

Brian Nowak (Morgan Stanley): All right, we'll have to stay tuned. I wanted to wrap with just sort of a big picture one for you because there are so many different layers to what's going on in Alphabet and you have a glimpse into so many aspects of the business. As you sit here now, what part of the business sort of excites you most from an opportunity perspective? And is that well understood by Wall Street? What is really missed by Wall Street, or your excitement versus what Wall Street perceives?

Ruth Porat, CFO Alphabet and Google: Well, I'll leave the second part of that question to you. But I think that what I find extraordinary is Google is about providing helpful experiences, services, information in the right way, as needed. And when I look at what's going on around the globe – and I'm going to go back to this extraordinary acceleration of the digital transformation – it's profound. And I think that we collectively need to make sure that what we are – what we're doing is inclusive growth that is addressing how do we – for example, with small business, how do we make sure that we're focused on how to develop digital skills for small businesses so they're enjoying this upside as well.

And when I look across what we're doing at Google and I look at the digital transformation, there are a lot of areas to be excited about. You can see it, as I said, in how people – how people consume content, how people conduct commerce. You see it in everything we're doing around work. I think that it is extraordinary to think about what will work of the future actually be. And when I think about the roots of Google Workspace, which is all about collaborative tools, collaborative docs, we're – all of us are grappling with what does this return to office actually mean. And it's an exciting opportunity for our team to say – “You know what? We'll be in a hybrid work environment” – that doesn't really work well unless we've got the right technology

that can bring us all together. And you look at what's going on with Cloud.

So I think there's a lot to be excited about and a lot of responsibility that comes with it, which we're very focused on, which is why – again, to your first question when you said how do we think about investment priorities, one of the very important ones is operational excellence. Making sure we're investing with the right rigor and velocity on things like privacy and trust and content so that we are delivering responsibly. So that was a long answer. We're doing a lot of things, but I think it's a really important time in the world and we're trying to make sure we're addressing this responsibly, helpfully and delivering value as we do it.

Brian Nowak (Morgan Stanley): Great. Well, Ruth, it is always a pleasure to sit down with you. Thank you so much again, for doing this.

Ruth Porat, CFO Alphabet and Google: Thank you. It's extraordinary, here we are a year later. And look forward to seeing you in person in '21. So thank you. And everyone out there, be safe.

Brian Nowak (Morgan Stanley): Thank you so much. Thanks, everyone. Thanks, Ruth.