Other Participants

- Anand Srinivasan, Analyst, Bloomberg Intelligence
- Anurag Rana, Analyst, Bloomberg Intelligence
- Geetha Ranganathan, Analyst, Bloomberg Intelligence
- Jitendra Waral, Analyst, Bloomberg Intelligence
- John Butler, Analyst, Bloomberg Intelligence
- Julie Chariell, Analyst, Bloomberg Intelligence
- Mandeep Singh, Analyst, Bloomberg Intelligence
- Woo Jin Ho, Analyst, Bloomberg Intelligence

Presentation

Mandeep Singh {BIO 15014535 <GO>}

Good morning and welcome to the Bloomberg Intelligence Webinar to discuss the impact of Coronavirus and scenarios for Tech, Media, and Telecom sectors. My name is Mandeep Singh, team lead for tech team here and senior analyst covering online travel, ride sharing and software sectors. Just wanted to start off by saying our thoughts go out to the people who have been affected by this challenging situation and we hope it's over soon.

A couple of housekeeping items. The webinar will be recorded and available for replay later. Views expressed by the analysts are their own and I encourage everybody to send their questions in real-time which our analysts will take at the end. So without further ado, over to Anand who will start with semis and hardware.

Anand Srinivasan {BIO 16652971 <GO>}

Thank you, Mandeep. Good morning, everyone, at least to those who like volatility. I'm the senior analyst covering semis and hardware, and we've spent extensive time conducting sensitivity scenarios amid the fast changing COVID-19 situation. With the 17 or so companies under my coverage, we have drastically reduced sales and EPS scenarios and compared them to consensus which have hardly moved. We're only highlighting a few today. We've also factored in margin hits due to under-utilization and what's reflected in the BI scenario is certainly not the optimistic scenario, but certainly not the dooms day one either.

It reflects weak 1Q and 2Q, some strength in 3Q and sort of a normal-ish 4Q. From an end-market perspective, we think that the cloud, public cloud, specifically, will be the strongest area, and on a relative basis, the least impacted area due to Coronavirus. Corporate IT, we think, which is already weak coming into 2020, which will weaken further in our estimate. We see no hope for auto units, and most companies were looking for auto units to remain flat in 2020 after sort of minus mid-singles in 2019. We don't think that's going to occur. And handsets, which are a good 20-plus percent of semi consumption, will remain a mixed bag. The critical period is 3Q and it's a 4G, 5G fight, and on a relative basis, it's the units versus ASP fight with stronger ASPs or average selling prices for 5G versus certainly en mass units for 4G.

With that as the background. I thought we would address some of the takeaways at the subsector level and at the company level. The key number one point that we want to make is semis are unequivocally much, much better position than hardware, better exposure to the public cloud companies like NVIDIA, AMD, and Intel all benefit here given that the data centers are disproportionately tweaked towards the public cloud over corporate IT. But we have to consider the offsets both in the consumer PC side of the business as well as in corporate IT. We think that from a background perspective, second half is better than first half, but again remember that the cloud -- public cloud come back which tends to be binge in its spending was meant to have a counter-seasonal effect this year with one half sales being greater than two half sales at least according to Intel. We think that will no longer hold true and we think it will tend to be a traditional year, but then there will be this balance between corporate cloud and non-corporate cloud.

(inaudible) utilization, we think that this is sort of a slightly ignored topic. For companies that do own their fans, after 2019, we were coming into a year that 2020 was going to posit better volumes, and that was going to fill up the farms and most companies have posited stronger gross margins as a result of better utilization, better mix et cetera compared to 2019. We think that that view will have some serious risk, so even a small change in sales relative to last year or relative to estimates, will have a notable impact because of under-utilization charges. With that as background, we thought we just share a few companies. Again, this is just two or three of the companies that were positing relative to the 10 to 20 that each of us covers, and if you look at TI, for example, we have taken down the BI scenario suggested that sales is lower than consensus by 3%, the EPS impact is substantially more higher percent and there has been very, very little move on part of consensus with these numbers.

So, we are very focused on earnings power and -- even with a company that is disproportionately exposed to Industrials and autos such as TI, we think that there will be a bigger impact because this is a relatively slow-moving sector. Qualcomm, again, same story, but the 4G and 5G mix that I mentioned earlier, will have a dramatic impact, 5G units and ASPs alone cannot offset the 4G unit impact and IoT and/or autos will have again a weakening influence, will be dilutive to this effort.

So, EPS is lower substantially more than our sales cut relative to consensus. AMB price to superior execution, higher multiple here exposed to all the right areas, but again phenomenal execution relative to Intel, but again, this is a high multiple name and it will have an impact as much as we believe that it might not, same logistics issues as the rest of the industry.

I want to switch gears here and turn it over to my colleague Woo Jin Ho who covers SMid semiconductor names.

Woo Jin?

Woo Jin Ho {BIO 15225630 <GO>}

Anand, thank you very much, and good morning everyone. Like Anand said, I cover the SMid semiconductor names as well as networking. So we did a similar exercise on earnings for small cap and the chip makers. As many in the audience may know, the impacts from the virus continue to evolve rapidly, several of the companies have already pre-announced, Qorvo, Skyworks, Microchip and ON Semi, to name a few. On average, these companies have cut estimates by 4% to 6% for the first quarter and did not update for 2Q, given the uncertainty. But let's take a closer look what's embedded into the 1Q cuts and to say that these may already be outdated given what's happened over the last couple of days.

So what's included, one, supply chain disruptions in China; two, lower demand in China, and stable -- but stable demand in the US and Europe. Needless to say, these are already outdated given the global disruptions from COVID-19. So what we take -- we took a stab at estimate scenarios late last week for the small and mid cap semi companies, we modestly took down 2Q estimates from recent consensus cuts and made modest cuts in 2H. Broadly speaking, our assumptions of the business environment was a stabilizing 2Q and that yielded a 5% drop in sales and consensus expectations -- versus consensus expectations and a 10% drop in EPS versus expectations, and our assumptions, like Anand said, also included modest reductions in gross margin and OpEx.

But given the events over the past couple of days, the breadth and scope of the virus impact, there is still risk that 2Q can come down further than the 5% drop that we're looking for as well and the 10% drop in EPS that we're looking for. We do think that consensus has not yet caught up and we think that the second half recovery may be weaker than anticipated. With that in mind, given the uncertainty, we did take a look at the strength of balance sheets of our small and mid cap chip makers. Within our coverage universe, all of our companies have a fair amount of free cash flow generation and most of our companies have manageable balance sheets with low leverage ratios.

Some of the companies are just Skyworks, Maxim and Xilinx, and Qorvo are very cash rich, were those with some debt, leverage ratios although at 1 times to 2 times EBITDA and free cash margins with over 30%, so these companies should have little impact, you see little impact in servicing their debt and paying their dividends.

With that, I'm going to pass it back to Anand to discuss hardware.

Anand Srinivasan {BIO 16652971 <GO>}

Thank you, Woo Jin. So hardware is a slightly different scenario than semiconductors. We are particularly focused on earnings power, not multiples. We believe that the hardware sector, the OEM space is dramatically more poorly positioned than semiconductors for multiple reasons.

Number one focus on earnings not multiples, while HPE and Dell sub-5 times, HPQ is sub-6 times, Dell -- and NetApp is 9 times, Cisco at 10 times these appear low versus historical levels. But again, we believe that earnings are at substantial risk here more so than the semiconductor sector.

Sales revisions are low for 2020 and even 2021, we've taken look at that for Giggles from consensus and we think there are notable cuts potentially to come. We think that earnings are set to structurally decline and we think that corporate IT spending, which was weak coming into 2020 from the hardware OEM perspective, if you look at several businesses both from from HPE, from Lenovo, from NetApp, from Dell, all of those structural weaknesses we think will continue, and this was even before COVID-19. We think that COVID-19 will only amplify the structural weakness and these companies have very little places to hide given their de minimis public cloud exposure.

So using that as background, we thought we'd share sort of an HPE scenario, and if you look at the revenue cards, we have taken it down by 2% relative to, we are now 2% lower than consensus, we have taken it down notably, but if you look at the EPS perspective, we are substantially lower than consensus by about 17%. We think that there is also no scope for an imminent recovery in the short term, just as an example.

Now I want to turn it over to back to Woo Jin to discuss Cisco. Woo Jin?

Woo Jin Ho {BIO 15225630 <GO>}

Sure. Thanks Anand. So, a couple of things that I want to discuss, on the high level view I want to start on networking. So networking companies have little China sales exposure. So the demand side impact in the region should have little impact on sales, but the weakness in the US and Europe is a concern for us. There has been supply chain impact for the networkers, they do source and also manufacturer from the regions and the early impact we've seen is a 4% to 6% sales impact for the March quarter. Now as I only kick things off with the high level view, companies with broader base than large enterprise corporate IT exposure are most at risk and within our coverage universe, Cisco has 60% sales exposure to the enterprise. Now, consensus have yet to take down the numbers and it's unclear to us what that impact may be, so we took a look back at the 2008-2009 financial crisis, consensus took down fiscal 2009 sales by 19% peak to trough to reflect the impact of the financial crisis and this is how I'm thinking about it for now.

But if we take a step back and take a bigger picture view on the networking space, not all networkers will be impacted as severely, companies with customer exposure with recurring sales -- recurring with -- the recurring sales positive secular trends and earmarked CapEx budgets are likely best positioned to weather the storm. Companies in this group include Arista Networks, they're exposed to -- high exposure to public cloud. Motorola Solutions, high exposure to critical communications and public safety networks for first responders -- responders and Ciena and Ericsson, which is exposed to the rollout of 5G networks which shouldn't be disrupted in the second half of this year, as long as the workers are not quarantined.

That's it from me. From here, I'm going to pass it over to Geetha Ranganathan who will overview the media space. Geetha?

Geetha Ranganathan {BIO 15007716 <GO>}

Thank you, Woo Jin. So hello everybody. My name is Geetha Ranganathan, I cover the media sector here at Bloomberg Intelligence along with my colleague Amine Bensaid. So it's no secret that the media industry has been hit hard by this pandemic. The crisis really couldn't have come at a worse time because we've seen traditional media already been facing some of its worst challenges in terms of severe pressures on the legacy business added to which they were kind of in the midst of making this pivot to streaming and then you had the virus hit, so the media sector is actually down about 35% to 40% year-to-date in terms of stock price performance. It was down about 15% before the virus hit us, but in terms of exposure, the ones that are most exposed to the threat are those that generate significant shares of their revenue from theme parks, the box office advertising, all of which are threatened not just by the virus outbreak but as well by a broader economic downturn.

So I'm going to start off with the box office and kind of look at it in terms of different sector-by-sector impact. So for the box office, my colleague, Amine Bensaid, has done a lot of work on this sector in trying to figure out how much of an impact different moving parts are going to have on the business as a whole. So you have theater closures going on, you have movie delays and then the latest move yesterday was one from Universal which decided to take its movie trolls directly to the streaming platform.

So to begin with, I mean just to kind of give you a little bit of background, 2020 was going to be a challenging year, even without the virus, just because of a somewhat weaker slate. But obviously now those concerns are amplified manifold, Amine expects that in a base case scenario, the global box office industry may lose upwards of about 20% in terms of box office receipts as theater closures hit Europe and North America. So in terms of what that means for box office, it's about an $8 billion to $10 billion impact. So that's about 20% impact for a $40 billion industry. But I think the bigger concern is really the longer-term threats. So you have studios kind of postponing their releases. Of course, the greatest challenge I think is what I just mentioned, with studios kind of trying to release titles directly to streaming.

So the bigger concern there is, is that going to potentially shift consumer behavior. And then just to kind of take a look at what this means to the different theater chains, it's a little hard to ascertain right now, but it Amine's done some work here again. Again, this is changing as we speak as there are more and more theater closures, but we think sales could be hit about 10% or more this year. And I think the bigger question for these theater operators is it kind of really then questions their ability to pay near-term fixed cost obligations. So we are going to be soon publishing a note that goes over all of these obligations and who is best positioned to survive the Coronavirus, please stay tuned for that.

I'm going to go back now to some of the other sectors, obviously theme parks, again, we had the announcement both from Disney and Comcast Universal business. So this, the theme park business has obviously been a consistent performer for both of these companies, but with all parks closed, we think Disney now loses about $65 million or so in revenue per day. So that's $50 million from its domestic parks, about $15 million from overseas. So closure for a month basically translates into about $2 billion of lost revenue, about $700 million to $800 million in EBIT on a monthly level. For the Universal Parks, they have two in the US, one in Japan. Those roughly bring in about $16 million or $17 million in revenue on a daily basis, about $6 million in daily EBITDA. So that's kind of the impact that we have gauged so far.

Then moving on to advertising, now this is again a really challenged sector, it's kind of changing dramatically. A lot of it is going to depend on whether we believe COVID-19 triggers a recession because if it does, then of course, advertising is going to be hurt very, very badly. So I'm going to -- obviously, again, the situation is extremely fluid here, but I'm actually going to go with some of Magna Global's projections, they actually did a little bit of analysis last week. And as of last week, they were actually still projecting a 2% to 3% increase in core US advertising, that excludes the political and the Olympics events, but remember that that percentage increase does not factor in a recession.

The problem is that with travel, tourism, retail, restaurants and movies having been hit as badly as they have been, a rebound is going to be extremely challenging, and so we think that those estimates are going to have to come down. Political is -- might be one of the bright spots. This was projected to be a record year for political advertising, close to almost $3.5 billion, and so that's pretty much intact so far, but if the Olympics are canceled, that's going to be about $1 billion to $1.5 billion lost in terms of advertising revenue, and of course, again, a severe plunge for TV ratings for the NBC Network. Moving more specifically to TV advertising, and I want to do a little bit of analysis here from what the sports cancellations have meant for TV advertising, we did a little bit of work here in terms of assessing exactly what the breakdown is from a network level and for -- and we project that the suspension of the NBA and the cancellation of the NCAA tournament will result in about $2 billion of lost revenue.

So for NBA, we expect Disney's exposure to be close to almost $700 million just from the playoffs and the remainder of the regular season. Turner probably has closer to about $350 million, $360 million exposure. For the NCAA, we expect -- so that was supposed to be on both the Turner and the CBS network, but Turner would actually take a worst hit this year than CBS because they had coverage of the semifinals and the finals.

So that's in terms of an ad revenue impact. In terms of what it does to ratings, this is what we expect it will do to ratings, so ESPN taking about a 14% hit, Turner again going to be, it's almost a double whammy for them with the loss of both the NBA and the NCAA. And that's why you see some of those pretty bad numbers there for some of the Turner networks. So that's as far as what it's doing -- what the sports cancellations are doing in terms of viewership. But on the bright side, news networks ratings are soaring and so Magna actually expects viewership on new channels to be up almost 10% to 15% during this time.

So the big winners in terms of quarantine and stay-at-home is actually going to be streaming. So it's ideal for bench viewing. In terms of advertising, it really helps with connected TV advertising, we've already seen that this sector has really been on the rise this year. So before the virus, expectations were that connected advertising jump about 27%, we now expect a further acceleration of 10% to 13%, so nearly 40% versus that initial estimate.

And then lastly, just in terms of touching on the cable sector, the cable operators in terms of pay-TV, we think that's pretty defensive, thanks mainly to their heavy broadband exposure. So that makes it less sensitive than competitors to both the virus as well as the potential economic downturn. Again, we are going to be doing more in-depth work on a company-by-company level in terms of what the COVID-19 impact is going to be over the next few days. So please do stay tuned for that.

And with that, I'm going to pass it to my colleague, Mandeep Singh.

Mandeep Singh {BIO 15014535 <GO>}

Thank you, Geetha. And just a reminder for everyone, please send your questions if you have any, there is an option in the webinar to send questions. We'll take all of them towards the end. So, thank you.

I think one of the things you're going to see with the COVID-19 is, obviously companies with larger consumer exposure have been hit very hard and it's not surprising given the implications that COVID-19 has had on travel. So I just want to touch on the estimates and our view of where this sector is headed. So, so far, what we have seen is about 11% to 12% decline in estimates from the beginning of the year for online travel guys and our view is, 2Q could be a lot worse.

So we think consensus is way behind the curve in terms of taking down estimates for both the online travel guys as well as the ride sharing companies. And the reason I say that is because of the number of cancellations that have taken place just in the last two weeks to three weeks. So our view is that you're going to see a pronounced impact on 2Q. We think it could be down as much as 50% for a Booking, which has a notable Europe exposure. Now the thing about just the huge decline we are seeing is there will be pent-up demand and so you are going to see a short snapback if and when it happens and most likely it won't happen before 4Q in our view. But at the same time, a company like Booking, which has a very solid balance sheet could really weather this much better than the other online travel guys, namely Expedia or TripAdvisor, and so we definitely think Booking has a pretty strong balance sheet here, and a lot of the estimate cuts are already reflected in the valuations. Booking still trades at a premium relative to Expedia. But we think that premium is warranted, and at this point of time, I think the Europe is the big headwind for Booking, and once the travel bans are lifted, you will see a sharp snapback, so 2Q is pretty much a done deal, we think consensus is way behind, you are going to see some very sharp cut in estimates for 2Q, but overall, we think there will be a strong pent-up demand.

Quickly on the ride sharing side, we think trip frequency is a big driver of revenue for the ride sharing guys and what we are seeing more and more given the isolation and everything that we are seeing with COVID-19, just there will be a pronounced decline when it comes to trip frequency provider and that will have implications both on the demand side as well as the supply side for ride sharing guys. So consensus is again behind the curve for the ride sharing guys, they are still expecting 20% growth for the full year and we think first half is probably going to be mid-single digits at best, and you are going to see these companies push out there, especially I think Lyft as well as Uber push out their profitability targets by at least a couple of quarters.

I will quickly mention, Uber is somewhat better positioned than Lyft because food delivery is seeing or should see a bump-up, I should say with more people staying at home and we think the food delivery should be able to offset whatever headwinds Uber is seeing on the ride sharing side. So it's a good thing for Uber to have that option. I would suggest everybody take a look at you know how the numbers are shaping up for a seatrip.com for how things will snap back for Booking and Expedia and same thing for Meituan in China for how things will shape up for the food delivery guys because China obviously had this three months to four months ahead and so the recovery will likely be sooner over there and it's best to look at the metrics of those companies to get a sense of how this is going to play out in the US.

Just really quickly on the valuation risk, we think valuation risk is low at this point for the ride sharing and food delivery guys given valuations have come down quite a bit and I really think the key indicator is the trip frequency, once you see a bounce back in trip frequency, I think it's a good set-up for these companies.

So with that, I will pass it on to Julie for payments.

Julie Chariell {BIO 17144999 <GO>}

Thanks, Mandeep. Yeah, hi, it's Julie Chariell here. We ran some scenarios on our FinTech payment companies and how they may be impacted by the slowdown in spending. So I'll walk you through the methodology shortly, but let me first give you just the key takeaways.

First, discretionary spending is clearly heading way down and it will lead to slower TPV and revenue growth in the first half and likely slower EPS growth. I mean, it's hard to cut costs meaningfully when the downturn seems likely to be short-lived. So depending on the company in our group and the geographic and business mix, revenue growth could slow 4 points to 14 points for the year and EPS could drop 2% to.9%. Now, second, we think it's the merchant acquirers like Global Payments and Fiserv as well as Square that could be at the high end of this negative range. This now seems a bit like a lot of consensus call, but Global Payments and Fiserv have nearly two-thirds of their revenue tied to merchant card processing, and discretionary spending on cards is likely to start slowing across the board, right, we're moving beyond flights and hotels and cruises now to all kinds of entertainment sporting events, theaters, restaurants and retail. And this is not yet reflected in guidance or any management commentary. And so while the ability to work from home is a pretty amazing advance, I doubt it's the best way to extract integration synergies from a mega merger and stay on plan.

And importantly, a few weeks ago, it was good for these companies that they had little exposure to Asia, but we think that's going to turn into a negative for 2Q, if that region is the lone grower. Asia, and particularly China seems to be at least past the worst of the Coronavirus outbreak. People and factories are starting to get back to work. Conversely, the shutdowns have just started in Europe and the US and obviously Coronavirus cases have not yet reached a peak. So this possible Asia rebound could be a mitigating factor for the earnings pressure on Visa and Mastercard, because they have nearly 30% of their revenue from Asia,

And third, stocks will continue to fall until earnings estimates are reasonably adjusted downward. So far, the weighted average reduction to 2020 EPS for our coverage universe year-to-date is just 1.5%. We can see further share losses in the low-to-high single digit range as estimates come down, but if bear market sentiment really prevails and we start seeing greater multiple contraction even after factoring in the second half recovery and 2021 growth, stock price declines will reach the mid-to-high teens.

Lastly, we think PayPal maybe the best relative performer, its cross-border business has already been impacted and the company announced a small growth shortfall, we expect that to get worse for this 25% of revenue, but with social distancing, it seems even more people are buying from online merchants and that's PayPal's core customer base. So as long as product remains available and deliveries can continue, PayPal's merchant customers maybe the busiest by far.

Now let me show you some of the assumptions behind our numbers. We have three scenarios. The first two deal with fundamentals and focused on TPV by region and the impact on the discretionary portion of TPV. TPV is total payment volume, which is the total amount spent on cards or other digital means. Our base case seemed like the worst case a week ago, but now it may be light, it assumes 20% to 30% TPV declines for just a couple of months. Scenario two assumes a deeper decline for longer, so we have a 50% decline in discretionary spending on cards and then we assume that lasts through June in the US and Europe.

Our third scenario or our worst case looks at the market slipping into extended bear territory possibly from the prolonged impact and just a lack of optimism about a swift or substantial rebound. It assumes multiple compression on lower 2021 EPS. The specifics are described here on the slide, so I won't restate them, but the impact on the stocks would be tough. So it's further 13% to 20% decline.

Let me show you the impact of these assumptions on our numbers here. As you can see along the left side, we split our coverage into four segments. So the card processors, these are the large merchant acquirers who merged from six companies to three companies last year. Here you can see that in terms of revenue growth slowdown and EPS decline, Global Payments and Fiserv have had the most downside risk along with Square. These are for reasons I discussed earlier.

Interesting, Fidelity National or FIS, is less impacted because it has just half the exposure to merchant card processing. The card networks, Visa and Mastercard, have similar TPV risk as the processors, and they could also see some card issuing and services revenue slowdown in a bank derisking kind of scenario. But their impacts could be muted by their scale and by their global reach and that includes more exposure to Asia, which seems to be on the mend. Wex and FleetCor have 20% to 30% of their businesses tied to corporate travel and expensing, and we all know that is practically grounded to a halt. But their estimates have already come down more than average and their larger exposure to trucking may actually be supported by a rise in logistics needs, lower fuel prices though could add some top line pressure here.

And lastly, on the pure FinTechs, Square and PayPal, Square has small merchant base comprised of many restaurants, could be hit the hardest by a long downturn and with virtually no exposure to Asia, there is no potential growth leg in 2Q. PayPal, as we can see, has the lowest potential growth and EPS impact and if we're right that that impact is confined to just around that 25% of business supporting cross-border payments, this company looks relatively well insulated. And lastly, the valuation look on these companies. The potential stock impact really from lower EPS, if the multiples hold, the downside is mostly contained to single-digit percentages, and again, it's for the highest -- highest numbers are for the processors, the lowest for PayPal.

But again, if that bear market sentiment takes hold and broader market multiples begin to contract, even as investors are looking toward a more normalized 2021, the shares can face another big drop.

So with that, I'm going to hand it off to my colleague, Jitendra Waral, on Internet.

Jitendra Waral {BIO 15423976 <GO>}

Thank you, Julie. Good morning, everybody. I'm Jitendra Waral, I cover the Internet sector. The uncertainty in the space has been very high, in fact, Sheryl Sandberg, COO of Facebook, yesterday on Bloomberg TV said, nobody can predict the marketing impact at this point in terms of what the extent of the impact will be. So what we will do is take some cues off what happened in China exactly and what sort of like it means for the Internet space in general, because there are some positives here and there are some negatives here.

On a first touch on advertising, now this is a sector which will have a widespread impact from all the other verticals that everybody talked about. Expectations for

Internet have not changed at all and that sort of reflects the visibility problem, but in China, the Internet space has seen double-digit declines in its 1Q expectations. We expect a similar thing to happen in 2Q for the US name. So there are multiple -- there are three basic ways where the impact will really come from. Number one is travel, travel is hard hit, hardest hit sector over here, it's 8% of the industry in general. But the exposure varies by company. So Google has a higher exposure for search, it's about 11%, for display, which would reflect Facebook, it's about 6%. So travel, we are seeing some of the companies are taking down their spending by 25% plus in the travel segment and that would have a ripple impact on these companies.

The aspect, which is not really captured in expectations or valuations for that matter, is the impact from automotive and financial services, each of it are over 12% of industry sales. So when you sort of add up these three verticals, we have 30% plus exposure on ad revenues coming for the large Internet companies and that would show up essentially in the second quarter when these companies are reporting and give us some guidance.

Now ad growth slowdown in 1H is going to be the bigger impact we estimate for Facebook, i's going to be upwards of $2 billion. For Google, it's going to be $3 billion. This continues potentially part of 2H as advertising coming back online for different sectors will have different pace, but given that these three verticals might move slowly back up, we expect like the impact to sort of continue in 3Q, The hope is that all the rightful steps that the companies are taking to minimize the impact in the second half could taper this hit as we near the end. The other aspect of advertising, which is very important is event cancellations. This, in particular, is important for Twitter as Twitter has become largely an event-driven company in the recent years and if key events like Olympics are at risk, that would have a significant impact on Twitter's revenue growth expectations.

The biggest unknown really for the Internet sector and advertising in general for Google, for Facebook remains small and medium businesses, small and medium businesses are pretty much the lifeblood of these companies in terms of growth and all the closures that we are seeing right now raise that uncertainty as to what the impact could be. That's why we think like looking at what Chinese internet companies based in the face of those closures could give us some idea, but we believe a double-digit decline is going to happen in the second quarter.

E-commerce, this one is interesting where demand is spiking across the board. We are seeing not just for Amazon, but for other apps in e-commerce in general sort of like get higher demand and Amazon is hiring 100,000 more people now to service the demand. This should help some revenue growth offset, if you may, because of the demand of people working from home and they are trying to shore up the capacity, but what's different this time really is the cost of logistics will go up. Historically, we have seen when the capacity is overwhelmed, the cost to go up, but Amazon is raising compensation for its current workforce rightfully so which will cost about $350 million while incremental hiring of 100,000 people to support the spike in demand may also come at an additional cost. So what we believe happening this year is, if you look at Amazon's business in general, everything excluding AWS is expected to have an operating margin of about 2.2%, which is pretty much flat from 2019. We don't believe that number will be hit, it might actually come close to 0% in that scenario.

The one positive we see for the sector really here is cloud because of utilization being such a sensitive measure for cloud, as work from home drives more usage across the board, we are going to see a margin uptick because of that. Amazon said this in early 2019 that every single percentage point increase in utilization leads to tens and millions of dollars of savings. So you would see the higher utilization because of work from home because of all the online engagement actually benefits and so sort of create an offsets for the Internet companies exposed to this trend from a cloud perspective.

Now what about the valuations? The valuations have actually dipped below the 2015 levels. We feel the sum total of this is, you're seeing double-digit declines in expectations for first half, high-single digits for the whole year. If we look at valuations, it is reflecting this, the sharp decline from a 2015 low perspective, but it doesn't really capture a recession scenario, and one reference point I'll give you is Google -- Google's growth slowed down to single-digits in 2009 when that happened. So it is an uncertain unknown thing for second half as to would it sort of dip to double digits, but here's what we do know. These companies have the strongest balance sheets in the world, 70% of world's online population is using their services every month. And they're getting exposed to new features, use cases like WhatsApp for business, groceries for Whole Foods, Verily for Google. So the secular tailwinds that have been driving double-digit growth for the Internet sector, we expect that to pause, but it won't stop longer term. So we do expect that as we weather the storm, the double-digit growth curve for the Internet sector should resume next year.

Hopefully, this gives you a perspective for the Internet sector. And with that, I will pass it on to Anurag Rana for his views on software.

Anurag Rana {BIO 7440273 <GO>}

Thank you, Jitendira. So from our perspective, it's a bit different than what we have seen for some of the other sectors, largely because at least for the near term, it's going to have -- the virus is going to have a less of an impact on some of the stuff that's already booked, especially for companies that have very large support revenue or a very large subscription base. Typically what happens is, you have this revenue that's already been in the books, it's just a matter of how it flowed through the income statement. Now as far as the virus is concerned, the impact we see is going to be more in the area of deal cycles being elongated. New product sales, so as far as we could say that the expectations going into next month could be okay or may not be as bad as we saw in the case of Oracle, which actually did slightly better than what people expected. But the bigger kicker would be we could see new product sales to suffer most and that would reflect both in the case of license sales as well as new cloud sales. Those are the two areas that we think are going to see the first signs of a slowdown. And in the case of cloud-based companies, we could see impact on their revenue performance obligation numbers, which is the number that flows into revenue over the next 12 months to 24 months.

The one area we think we could see some kind of a -- you could say, boost going into it, is demand boost for collaboration software, you can talk about Slack, we can talk about Microsoft Teams. I'm sure everybody's talked ad nauseam about Zoom and how that the number of downloads have gone up.

So at the end of the day, the software industry is about providing productivity tools to both the consumer and the enterprise, we think this could drive more growth going -- coming out of this particular problem, but for the short term, I think, we think, companies that provide some collaboration software could see a leg up.

So with that, I want to briefly discuss valuations. Now we have looked at some of the valuations come down compared to last four years or five years, but frankly we have not moved on to the areas where it is going back to the '09-'10 levels. So before I jump into the services world, I wanted to take a minute and go through some of the bigger names that we cover and see how do we think they're going to fare over the next couple of quarters or so. So I'm starting with Microsoft, for example, we are looking at Microsoft has a fairly sizable, let's say, stable commercial base. I think the annuity on commercial base is closer to 80%, 90% and so company signs or enterprises sign long-term agreements with Microsoft to provide -- for Microsoft to provide their products to them. So Microsoft has a fairly stable commercial business, the consumer business is the one where we could see some weakness and the area where we could see in the case of one of their segments called the PC area where we could see some hardware sales problems, similar to what Anand said, and because of supply chain concern, Microsoft has already pulled their guidance from that division. So that's I think where we see the most impact for them. Going into the other areas, their cloud business, the transactional part of it, I think should be able to hold up because if you are utilizing more cloud-based applications, you would see a lot more transactions go through that. The stable nature of subscriptions that is provided by Office 365, that should be again a stable element for them.

The second big company is Oracle, they just reported and things looked okay for them, and in fact they reported better numbers than what most people expected. For the case of Oracle, it has some very large support base. Now their big issue was they were behind in the cloud, and they were not able to migrate a lot of the databases out there, but I guess the silver lining of that is, it also provided a very, very large support base for them to get recurring revenue from and that actually is holding it right. And their subscription base on there, some of the fusion cloud products, that's also holding up.

Moving on to SAP, now this company we think has has a very high Europe exposure and could be I think one of the few software companies could see some downside to both sales and EPS revisions going into next quarter and even after that is because of its very high exposure to Europe as well as it also runs a product called Ariba, which has a fair amount of transaction revenue that flows through them and then less of subscription nature.

Moving on to VMware, this is again a company we can see some weakness on their license sale. But the support base it has largely from, it's a very large virtualization software itself, should be able to offset some of that risk.

Salesforce.com, this company has also done a fair amount of good work, I would say, in a very stable subscription nature of what they do, they acquired a couple of companies over the last two years and I think that should help mitigate some of the organic slowdown in new business signings that they will also encounter, but given such a diverse product portfolio, I think it is less insulated some of the single product companies out there, and which brings us to Workday. Workday has a bit of an issue when it comes, because their core HCM product is slowing down and their biggest hopes, the next future growth, is pinned to their cloud-based ERP solution and that's an area we think it's possibly given how big of a commitment it is from companies, given the disruption that's going on, maybe it takes a bit of a back seat in the near future. But having said that, I think Workday's prospects coming out of this -- it's also one of those companies that has a very superior product both in -- both the areas that they service.

The last two companies in software that we cover, both Shopify and Adobe, have a fairly hard -- fairly large exposure to consumer-related products, and those are the ones that could see some either I could say pull-back on spending.

Moving onto services, I think this is an area where it's again going to be less of an impact. But nevertheless, they should see stuff as well. Now within the tech services names, we think consulting is the one that gets affected more than outsourcing, largely because of this discretionary nature of the consulting work, that gets impacted more. Companies with the larger European exposure such as Capgemini are the ones that will be impacted. Given that banks spend a lot on IT services and given what's happening to interest rates over the last few weeks, we think bank IT spending is likely going to get weaker over the next 12 months. Even the offshore work is not immune to a slowdown. So offshore companies such as Cognizant, such as TCS, such as Infosys that depend a lot on banking IT spending could see some slowdown in their growth rates, but one thing to remember for almost all services companies, going into the year, they typically have 90% of the revenue already locked in. So they are I think still better protected than some of the other companies in the tech ecosystem, and for us, the areas that we would be watching closely would be their bookings numbers going into the next quarter and see how they come up with.

Now, within the services space, we think Accenture is one company that has a much more, I would say, well diversified business model. If you see in the last -- last time we looked at Accenture, going back into '09-'10 time-frame, you could see their revenues fell down quite a bit, but we think this is a very different company at this point, less of an impact than some of the other individual companies just because of a very well-diversified business model, they have a unique way of acquiring small entities and scaling that up, they have a very large digital footprint, very large global offshore footprint. We think this would be, on a comparative basis, less of an impact on Accenture than it would be for the rest of the space.

Now, with that, I'm going to pass it along to my colleague, John Butler, on Telecom.

John Butler {BIO 16869584 <GO>}

(Technical Difficulty) I cover Telecoms and equipment vendors. And as you can see on this first chart, consensus revenue estimate and EPS for the sector really haven't come down a lot and I think a lot of that reflects the fact that the telecoms are relatively immune to a really sizable impact from the virus.

Having said that, let me start here with the Apple and just provide some thoughts on how I think it's going to play out for them. I think number one, the important thing to keep in mind for Apple is that any lost sales in second quarter or third quarter aren't going to be lost forever, the majority of Apple's device business really represents upgrades as opposed to organic growth. So my sense is that we'll see pushouts maybe to the fourth quarter or even into next year. But lost sales are not lost forever. I'm running a base case scenario on the total impact between this quarter and next, which is fiscal second and third quarter for Apple. Our base case scenario suggests a $0.50 impact to EPS, and roughly $7 billion to $10 billion -- again what are likely to be mostly postponed sales as opposed to lost sales.

The big issue this quarter was centered in China where we had not only an impacted demand but also a supply shock. The good news there is that the rate of new infections in China is now beginning to recede. The bad news is, there is now a demand impact evolving in western markets, particularly in Europe, and now here in the US.

My best guess is, it's -- we're probably going to follow a similar bell curve to China, I think that the sudden change in behavior here in the states and Western Europe with social distancing, the advent of warmer weather to come starting in May is really going to help quell the spread and I think largely confine it to 2Q and 3Q.

Shifting now to a look on how it's impacted Apple's valuation, as many of you know, Apple is more than 25% off its high. If you look back in early January, this stock was trading at 24 times the forward four quarter PE ratio. This chart suggests to me that we're headed back to a mean of 15 times to 16 times. But again, it's sort of the fear-driven trading environment. So it's difficult to say whether or not it will overshoot. But I think concerns are really getting baked in here for almost a worst-case scenario here in the States.

Switching gears to telecom. I think the title says it all, telecoms are relatively immune to a virus impact. Overall, we expect from quarantining and so forth, maybe a 2% impact on the annual sales. For the carriers, the good news is their high-margin service revenue really should benefit from the work-at-home trend, but equipment sales could get dented as all the carriers are beginning now to close their retail stores, particularly mall-based stores. So you're going to have much lower foot traffic, though I would emphasize equipment sales are lower margin than the services business -- pardon me, and represent a much smaller percent of their total revenue.

One question I get a lot is, will the virus really derail the deployment of 5G services here in the US? And I think the best answer is, maybe, we could see potential labor shortages, if we get a very broad outbreak here in the States. There is already a shortage of tower climbers as they call them, the folks that climb towers and put spectrum into service and equipment into -- into service at the cell towers. And so again, I think, a boost in sick leave among that labor force could lead to a shortage of workers, and of course, there is risk to equipment shortages as well, so net-net, our expectation is risk of a modest impact. But I think as we get into the second half, we're back to full steam ahead there.

Taking a look at telecom valuations, you can see, they've come in with the market. But again, in terms of how these businesses are insulated from the virus, telecoms along with utilities are about as good as it gets. Again, because it really is a services based revenue model.

With that, let me sort of close my portion of the discussion with just some quick thoughts on the wireless equipment vendors, including Nokia and Ericsson. Both of them coming into the quarter faced supply risk out of China getting critical components to make their gear. There is now a bit of a demand side risk. Again, it's much smaller in comparison. Ericsson also faced a much higher risk in China than Nokia, because they have the bigger business there. I think the good news for them at this point is that again the rate of new infections in China is dropping rapidly and so they're getting back to business there and I think those supply constraints will begin to ease over coming months as opposed to get worse.

What did happen is equipment sales again may get dented as new network construction here in the US and Europe slows if there is a lot of sick leave among the workforce. With this in mind, we've modeled in a base case scenario of 5% risk to revenue. But overall, again, I think the fallout for these two names will be modest, and again, the good news is that a lot of factories are now getting back to work -- getting back to work in China.

With that, let me turn it back to Mandeep for Q&A.

Questions And Answers

Q - Mandeep Singh {BIO 15014535 <GO>}

Thank you, John. We may have time for a couple of questions. So Julie, if you're on, can you talk about the cross-border payment exposure for the top companies like Visa and Mastercard?

Q - Julie Chariell {BIO 17144999 <GO>}

Sure, thanks Mandeep. Visa and Mastercard don't provide the specific amount of revenue or TPV from cross-border transactions. Best estimates I've seen are that is somewhere between 5% and 7%. They do provide growth though every quarter and I can tell you for Visa in the past year or so cross-border has grown slightly lower than the corporate average, and for Mastercard, it's grown slightly higher, so visits to cross-border could accrue a bit more to Mastercard than to Visa, as things slow down, but it still seems to be well less than 10% of their TPV.

Q - Mandeep Singh {BIO 15014535 <GO>}

Got it. Thank you, Julie. And Geetha, really quick, can you discuss subscriber growth tailwind for streaming companies like Netflix, Hulu, Disney as a result of COVID-19?

Q - Geetha Ranganathan {BIO 15007716 <GO>}

Sure, Mandeep. So obviously this is a big boost to all of the streaming services. We ran some numbers. As people get shut in, obviously they're streaming more and more. We actually ran some numbers for the February mobile downloads in the Asia region for Netflix and we saw that there was a 30% increase and we expect very similar increases in the US in March. The thing is though, even with the subscriber tailwinds, there are a couple of things that you need to factor in. So there has been some debate about what this really does for a company like Netflix, for instance, because it's really a more like an all-you-can-eat buffet and even if you have people spending like four hours on Netflix, what does it necessarily do for them? There is no ad revenue. Does it translate into a significant increase in revenue? Probably not, but I think what it does is, as more and more people want to go on simultaneous streaming, there's probably going to be an upgrade to more expensive tiers. So that's probably how it benefits them, and between the services themselves, we think Netflix is the best position, just because of the breadth and depth of content, I mean the sheer tonnage of content that they have, there is a steady stream of new content landing all the time and that kind of puts them at an advantage, especially when the Coronavirus has kind of postponed productions for a lot of these newer streaming services because you have Disney Plus for instance some high profile originals like Marvel's, the Falcon and Winter Soldier has kind of been put on hold, Netflix itself has actually shut down all the film and TV production, but they still have a lot of pipeline of good shows that they're bringing on their service.

Q - Mandeep Singh {BIO 15014535 <GO>}

Thank you, Geetha, and Anand, you get the last one. So can you talk about the best and worst case scenario for how long the impact of COVID-19 lasts for your supply chain guys?

Q - Anand Srinivasan {BIO 16652971 <GO>}

Thank you, Mandeep. So on the EV side, the best case scenario is that we return to 90% utilization in the next month, particularly in China, we've seen Hon Hai and the assemblers as well as most of the fabs. The semiconductor factories are actually mostly located outside of China. So this is Korea, Taiwan, and to a lesser degree, Japan, US and Singapore. So those factories have higher utilization as well as supply chain assembly of the gear, if you may, we want to see that return to 90%, that's sort of the threshold number well ahead of the Q3 -- calendar Q3. If that happens in the May time-frame, that is fantastic, the April time-frame is better.

The worst case scenario is that we don't return to that 90% number through 2Q and through 3Q and when that happens, the all-important quarter for semiconductors and for assemblers is actually the 3Q period, ahead of 4Q. If you don't have production and assembly of the gear into late 2Q and even early 2Q, then you lose potentially what is 30% to 35% of the year worth of sales in that one quarter and that would destroy your 2020 estimates.

So that would put us into the worst case scenario and hopefully that gives some color regarding the supply chain.

Q - Mandeep Singh {BIO 15014535 <GO>}

Got it. Thank you, Anand. And with that, I think our webinar comes to a close. On behalf of the TMT team, I thank you all for joining today. Hope this was useful. Reach out to the respective analyst that you see on the slide, if you have any further questions, and we will send the replay and the slides in an email. Hope this situation is over soon, everyone stays safe and healthy. Thank you.