Company Name: Intel
Company Ticker: INTC US
Date: 2017-04-27
Event Description: Q1 2017 Earnings Call

Market Cap: 176,257.87
Current PX: 37.43
YTD Change($): +1.16
YTD Change(%): +3.198

Bloomberg Estimates - EPS
Current Quarter: 0.639
Current Year: 2.804
Bloomberg Estimates - Sales
Current Quarter: 14334.313
Current Year: 59945.459

Q1 2017 Earnings Call

Company Participants

- Mark H. Henninger
- Brian M. Krzanich
- Robert H. Swan

Other Participants

- Vivek Arya
- C.J. Muse
- Blayne Curtis
- Stacy Aaron Rasgon
- John William Pitzer
- David M. Wong
- Timothy Arcuri
- Ross C. Seymore
- Kevin E. Cassidy

MANAGEMENT DISCUSSION SECTION

Mark H. Henninger

GAAP and Non-GAAP Financial Measures

A brief reminder that this quarter we have provided both GAAP and non-GAAP financial measures

Today we'll be speaking to the non-GAAP financial measures when describing our consolidated results

The CFO commentary and earnings release available on intc.com include the full GAAP and non-GAAP reconciliations

Brian M. Krzanich

Business Highlights

Revenue and Operating Margin

- Q1 marked a great start to the year coming off both Q4 and full-year records in 2016
- Q1 revenue was up 7% over Q1 last year, a record Q1
- And operating margin was up 20%
- It was another milestone in our transformation from a PC-centered company to one that powers the cloud and billions of smart and connected devices

- Average selling prices, or ASPs, grew meaningfully across our PC, data center and IoT business, reflecting the market's demand for performance and our segmentation strategy, and our memory business set an all-time record revenue

Strategy

- At our investor meeting in February, I outlined our strategy to make Intel the driving force of the data revolution across technologies and industries
- I also detailed our top four priorities for the year:
- Growing the data center and adjacencies, ensuring a strong and healthy PC business, growing IoT and devices, and executing flawlessly in memory and FPGAs
  - That's the framework we're using to measure our success throughout the year, and I'd like to take a few minutes to assess our progress so far

Data Center

- First the data center and its adjacencies
- DCG grew 6% y-over-y despite a headwind resulting from a 14-week first quarter last year
- The cloud service provider revenue was up 18%
- The comms service provider segment was up 12%
- And enterprise was down 3%, while non-CPU adjacencies grew more than 20% across all of the segments
- Data center microprocessor ASPs were up in total across every product line, underscoring the market's demand for performance to transmit, aggregate and analyze data
  - We're also on track for mid-summer launch of our next-generation Skylake microprocessor
- Skylake delivers significant performance gains across a wide range of workloads

Skylake

- For example, Skylake will include AVX-512 extensions that will deliver a 2x improvement in floating-point operations per clock over the current generation, a gain that will have an especially high impact on HPC and artificial intelligence workloads
- And last month we announced the formation of the Artificial Intelligence Product Group, bringing together all of our AI hardware and software assets and all of our AI engineering expertise across the company into a single group to accelerate our development of a full stack of AI solutions, and explore novel approaches that will shape the next generation of AI products

Client Business

- Second, a strong and healthy Client business
- Our annual cadence of product innovation, combined with a thoughtful segmentation strategy, continued to produce strong mix, which drove higher ASPs

  - This trend, along with our ramping modem business, drove revenue up 6% and operating margin up 60% over last year

- Our expectations for the PC unit TAM haven't changed since we last talked with you
- We're expecting a mid-single digit percentage decline in the unit TAM.
- Our ASPs, however, are trending ahead of expectations and are contributing to our slightly higher revenue expectations for the full year

IoT Business

- Third, we highlighted the importance of growing the IoT business as we drive, and benefit from the rise of billions of smart and connected devices
- IoTG revenue was up 11% y-over-y, where we saw strength in our industrial, video and automotive segments
- We also announced our intention to acquire Mobileye, a highly profitable, fast-growing leader in computer vision for advanced driver assistance systems and autonomous driving
- The transaction will combine Mobileye's expertise in computer vision with Intel's expertise in high-performance computing, artificial intelligence and connectivity
- Together we expect to be the global leader in the $70B autonomous driving systems, data and services opportunity by accelerating auto industry innovation and delivering cloud-to-car solutions faster and at a lower cost

Memory and FPGAs

- And, finally, we emphasized the execution in memory and FPGAs
- Our memory business grew 55% y-over-y in a tight supply environment, while Fab 68, our Dalian factory, continues to ramp 3D NAND production and is delivering outstanding product yields
- We also shipped our first Optane SSDs for the data center and our Optane memory solution, which is available online now and in PC OEM systems later this quarter

Programmable Solutions Group

- In our Programmable Solutions Group, revenue declined 7% over the last year after adjusting for acquisition-related accounting charges in Q1 2016
- The y-over-y decline was due to weakness in the data center and comm segment, partially offset by growth in industrial and auto and consumer
- We also announced an important pilot program with Alibaba Cloud, the cloud computing arm of Alibaba Group, for our cloud-based FPGA acceleration service

PC Business

- We're making good progress against our four top priorities for the year and our transformation goals
- We're improving the profitability and health of our PC business

- At the same time, our investments in the data center, IoT, memory and FPGAs are paying off with significant combined revenue growth
  - These are purposeful investments that will position Intel for years to come
- At the same time, we recognize that there is an opportunity and a responsibility to be more focused and efficient as a company, a goal we can achieve without compromising our most important investments, our transformation or our future

McAfee

- Focus was one of our objectives in establishing McAfee as an independent cyber-security company just weeks ago
- And it is with efficiency in mind that we're making an important commitment to our owners today
- We are establishing a spending target of approximately 30% of revenue, which we expect to reach no later than 2020
- Following a 1 percentage point improvement from 2015 to 2016, we forecasted additional 1 percentage point improvement in spending in 2017 and we're now expecting to do a little better than that
  - While we expect revenue growth to a play role in achieving these targets, hitting this goal will require spending discipline and an intense focus on our strategic priorities

Client Business

- To sum up the quarter, we're off to a good start and executing well against our priorities
- We're delivering a steady cadence of leading products, a powerful segmentation strategy and growing profitability in our Client business
- We're growing our Data Center, IoT, and Memory businesses as customers see data as a competitive advantage and look to Intel as a partner that can help them create, analyze and unlock the value of massive and growing flood of data
- And finally, we are committing ourselves to a set of important new productivity goals intended to create value for our owners

Robert H. Swan

Financial Highlights

Performance

- 2016 was a record year for Intel and 2017 is off to a strong start
- We executed on several important milestones in the quarter
- We delivered on innovative product and technology roadmaps across the business, Fab 68 in Dalian continued its impressive ramp, and Intel's transformation continued with the planned acquisition of Mobileye for autonomous driving and the sale of the Intel Security Group

Revenue

- Revenue was $14.8B, up 7% y-over-y
- Operating income was $3.9B, up 20% y-over-y, and EPS of $0.66 was up 22% y-over-y
- Our EPS performance was a result of strong top line growth and significant margin expansion
- First quarter operating margin was 27%, up 3 points y-over-y, and gross margin came in at 63% up 0.5 points y-over-y
- Direct spending came in at $5.4B, flat y-over-y and down 2 points as a percent of revenue from 2016 as we continued to execute on our restructuring program

Segment Performance

Client Computing Group

- Let me touch briefly on our segment performance
- The Client Computing Group had revenue of $8B, up 6% y-over-y
- We continue to see the worldwide PC supply chain operate at healthy levels
- Client ASPs were up 7% y-over-y as our segmentation strategies are paying off and core mix continues to be strong
- This segment had yet another quarter of significant profit growth with operating profit growing over 60% from a year ago as the business continues to execute and benefit from continued improvements in 14-nanometer unit cost, richer product mix and lower spending, primarily from the Client business having a decreased share of technology development and SG&A allocations

Data Center Group

- The Data Center Group had revenue of $4.2B, up 6% y-over-y
- The Data Center Group had operating profit of $1.5B, down 16% y-over-y
- Operating margin percent was impacted by increased allocation of technology development and SG&A costs, higher product costs as we transition to 14-nanometer and the ramp of adjacency products

Internet of Things Business

- Our Internet of Things business achieved revenue of $721mm, growing 11% y-over-y driven by strength in the industrial and video segments and continued momentum in our automotive business
- Operating profit for the business was $105mm, down 15% y-over-y from increased investments in autonomous driving and increased allocation of SG&A and technology development spending

Memory Business

- Our Memory business had record revenue of $866mm, up 55% y-over-y with strong demand for data center SSD solutions and demand signals outpacing supply
- We continue to make outstanding progress ramping Fab 68 with yields and unit costs well ahead of expectations

- This segment had an operating loss of $129mm, largely driven by costs associated with 3D XPoint and startup costs for our memory capacity

Programmable Solutions Group

- The Programmable Solutions Group had revenue of $425mm
- Operating profit was $92mm, flat y-over-y after adjusting for acquisition related impacts
- Our Intel Security Group business had revenue of $534mm and operating profit was $95mm
- Consistent with our prior guidance the Intel Security transaction closed at the beginning of Q2

Capital Allocation

- Let me remind you of our capital allocation priorities and our progress
- First, invest in our business, second, strategic acquisitions and third, return cash to shareholders through dividends and buybacks
- In the quarter we generated $3.9B of cash from operations
- We repurchased $2B in capital assets, paid $1.2B in dividends, increased the dividend by 5% and repurchased about $1.2B of stock
- In addition, we generated approximately $400mm from the sale of some of our interests in ASML, which generated $235mm of pre-tax gains
- At quarter end, cash other long-term investments was $23.7B, up $600mm
- Total debt was $25.8B

Share Repurchasing

- Today we announced an increase in our share buyback authorization by $10B.
- Currently, we have approximately $15B authorization
- We expect to continue to offset dilution from our stock-based programs and opportunistically reduce our outstanding share count over time

Guidance

Client ASPs

- Now let me turn to guidance
- First, some context
- First, while we see strong momentum and Client ASPs contributing to slightly higher expectations of revenue for the year, we continue to take a more cautious view of PC consumption vs. third party analysts
- We feel great about our annual cadence of product innovations with new product launches planned this year including Skylake for data center, eighth generation core, 64-tier 3D NAND SSDs and further extensions to our Optane product line

Data Center Business

- Second, we continued to see strong demand signals in our memory business through the year and our Fab 68 in Dalian ramping to be able to supply higher demand levels
- Third, the Data Center business has solid momentum with the mid-summer launch of our next-generation Skylake processor
- And forth, as I indicated earlier, we completed the sale of the Intel Security Group
- We expect to realize a pre-tax gain of approximately $375mm and a tax liability of approximately $850mm
  - This results in a GAAP tax rate of 39% and a non-GAAP tax rate of 21% in Q2

Revenue

- And last, as Brian talked about earlier, we are committed to increasing efficiency as a company and we are making an important commitment to our owners today
- We expect to reduce our spending as a percent of revenue by 2 points from 2015 to 2017 and our plans are to continue to drive efficiencies in how we operate the business over time
- We are establishing a spending target of approximately 30% of revenue which we expect to reach no later than 2020

EPS

- As a result, we are raising our full-year revenue guidance by $500mm to approximately $60B and our EPS guidance by $0.05 to approximately $2.85 per share
- As we look to Q2 2017, we are forecasting the midpoint of the revenue range of $14.4B, up 11% y-over-y excluding Intel Security and up 6% including Intel Security

Operating Margin

- We expect operating margins to increase by 3 points y-over-y, gross margins to be up 1 point at approximately 63% and spending to be approximately $5.2B, flat y-over-y
- We expect our spending as a percent of revenue to be down 2 points in H1 vs. last year, as we make solid progress in increasing efficiency in the company
  - We expect EPS to be approximately $0.68, up 15% y-over-y

TAM

- We feel pretty good about where we are 90 days into our three-year journey
- We exceeded our expectations for Q1 and increased our profit expectations for the full year
- At the same time, we are investing in the future by expanding our TAM from $45B to $220B
- We are already seeing an impact, with our growth-oriented businesses up double digits collectively as we continue to transform the company from a PC-centric company to a company of smart and connected devices that power the cloud

QUESTION AND ANSWER SECTION

<Q - Vivek Arya>: Brian, I'm curious on the Data Center growth. The growth rate is now below 6% in Q1. Are you still committed to the high single digit growth rate for this year? What will drive it? Is it just some pause ahead of the broader launch of the Skylake servers? If you could just give us some more color about why the growth rate is below trend right now and what will help it get back to trend later in the year and over the next few years.

<A - Brian M. Krzanich>: Sure, Vivek. So the simple answer is absolutely, we're still committed to the high single digit growth for the year. If you take a look at it, as Bob and I both mentioned in the call, when you take a look at Q1 comparatives, one, Q1 of last year was 14 weeks. This year it's a normal 13 weeks. So you add that one extra week; that's a couple of percent that you're competing against in a y-over-y basis.

Secondly, Q1 tends to be our lowest quarter in general if you just look at our seasonality in the year for overall revenue and output and growth in the Data Center business. And so as we look out and we see, as you said, the ramp of Skylake in H2, as we see the normal seasonality, we are absolutely committed to that high single digit growth rate for the rest of the year.

<Q - Vivek Arya>: Okay. Thanks. That's helpful. And as my follow-up, the very rich mix in PCs, ASPs were up very strongly. How sustainable is that? And are you seeing any effect of competition from AMD's product launches?

<A - Brian M. Krzanich>: Sure, I'll start. Bob, you may want to jump in. Each quarter we come in here and say we're a little concerned about the sustainability of those high ASPs, and we continue to have that, so we always forecast. If you take a look at what we've forecasted for the remainder of the year, we've forecasted a slight decline in ASPs as we move through the year. Now, that said, we're continuing to improve our road map. We're continuing to pull in products, and the demand for those high-end, high-performance products, from 2-in-1s, gaming, high-end workstations, continues to grow faster than we are even able to project.

So right now we've forecasted a slight decline through the rest of the year, but we had strong demand for it in Q1. And we really believe that's a function of our products and our roadmap. From a competition standpoint, we're not seeing anything unusual right now as far as – there's always some level of competition in this market, and I'd tell you for Q1 and our forecast for Q2, we're not seeing anything out of the ordinary from what we normally see.

<A - Robert H. Swan>: Yeah, the only thing I would add, Brian, is with the ASPs being a little bit stronger than we expected in Q1, as we mentioned, we expect full-year revenue to be up $0.5B, vs. where we were 90 days ago, and I would say one of the contributors to that is how we saw ASP trend in Q1 the year.

<Q - C.J. Muse>: I guess first question, in terms of your targeted 30% OpEx ratio by 2020, would love to hear what kind of revenue assumptions you're making as part of hitting that.

<A - Brian M. Krzanich>: Sure. So I'll start. First I thought it would be good to give you a little background, right, why do we come out and commit this now, and what's our thinking behind this? And part of it is we had good progress, brought down spending as a percent of revenue about 1% for 2016. We're a quarter in, and we're seeing good progress in our efforts along 2017 of taking it down another slightly more than 1% as we look at this year.

And so we just really took a look at, do we think we can maintain that progress and continue to drive efficiencies while driving growth. The growth we've expected is what we talked about in the analyst meeting back in February, which is that mid-single digit type of growth for the overall company, and that's kind of where we're at from a growth perspective. And then the cost reduction and efficiencies are driving the rest of it.

<A - Robert H. Swan>: Yes. And I would just say that our focus is on growing the earnings performance for the company in the short, medium and long term. And what we laid out at Analyst Day, as Brian indicated, was over the next three years, low single digit growth, operating income growing faster than revenue and EPS growing faster than operating income. Against that, we're trying to obviously make revenue grow faster, continue to manage the efficiency in which we operate the company and drive strong earnings growth performance over the short, medium and long term. So the 30% target is consistent with kind of the three-year plan, and we know that there's opportunities for us to be more efficient as we go forward.

<Q - C.J. Muse>: That's very helpful. I guess as my follow-up, was hoping to take a look at Memory. And here would love to hear from you as to how we should think about layering in depreciation from Dalian this year next, and when you would expect to turn a profit on the operating margin line.

<A - Brian M. Krzanich>: Yeah, on the depreciation, we kind of implied in our guidance really no change on our depreciation through the course of the year, and what that assumes is roughly $2.5B additional CapEx from Memory in the year. In terms of profitability for this year, when we talked to you at Analyst Day, Rob kind of laid out a plan where the core 3D NAND would be profitable in H2, but our losses for the business would still be roughly in line with where we were in 2016. And that was a function of really three things, good performance on 3D NAND, continuing to ramp Dalian and continuing to invest in our Optane product or 3D XPoint. So those dynamics have us breaking even for the core business in H2. We said that near the end of 2018 as a whole, the Memory business would be profitable. And to Q1, growth was stronger than we expected and performance out of our fab was even better than we expected.

<Q - Blayne Curtis>: I just wanted to go back to the DCG growth and into your outlook in June, flat or slight growth overall. Is your expectations of the DCG would be similar to that? And then as you look out the whole year, you talked about cloud growth. I know tough compares, but 18%. Just curious, since you've been shipping early to these customers, what would be the timeframe that you would actually see some benefit from Skylake?

<A - Brian M. Krzanich>: Sure, so I'm not exactly sure I completely understood your slight growth. What we said is for DCG as a business, we're in the high single digits growth rate, so we're absolutely committing to that. We talked about the 6% in Q1 and how, as we go through the year, we'll continue to grow.

From the standpoint we've been sampling Skylake to the cloud guys now for some period of time. In fact, back into the latter half of last year. But you really don't see the ramp of Skylake in volume at any of the customers, whether it be the cloud guys or the rest of the enterprise and networking and all until H2. That's really when the volume kicks in on the server side, and that's absolutely what we had forecasted and there's no change in that forecast whatsoever.

<Q - Blayne Curtis>: Thanks. And then maybe if I could just ask, and I know you don't break it out any more, but just your view on your modem product this year and next, and if you could also maybe opine about your foundry strategy and opportunities there.

<A - Brian M. Krzanich>: Sure, I can start with the modem and Bob can talk about – I'm not going to break it out financially. Bob can talk about, jump on top of this. But for us on our modem, it continues to gain momentum. We've talked about our one large customer, but we continue to get other interest in it. We are on schedule to bring our next generation modem into production in customer qualifications this year and really looking out over time. We have the next several series of modems over the next few years from an LTE perspective.

And then we're already working on and believe we're leading, if you looked at our output for the MWC back in February as well, on the 5G side which is both at the modem and back through the base station. And that, we believe, is really the differential that we're able to provide in the communication space is in a space like 5G where the modem and the base station and backhaul is so integrated and so important, we're able to provide that end-to-end solution.

From a foundry perspective, we continue to talk to several large customers and as we're able to, we'll talk about volumes and launching of new products. But for right now we're just saying we're continuing to invest and grow that business.

<A - Robert H. Swan>: Yeah, and the only thing that I would add is the strong CCG revenue growth of 6% in the quarter. As you'll remember, because our first launch client really didn't ramp until H2 last year, H1 revenue growth for CCG will, particularly because the modem will have a relatively easy comp. So that's a contributor to growth in H1, and as Brian said, the comps get much tougher in H2 because our one client launched in H2 last year, but given the product we have, we feel relatively good about where we are.

<Q - Stacy Aaron Rasgon>: First, I wanted to ask again about this 30% spending target. You guys just had an Analyst Day like two months ago. It seems like something that probably should have been talked about then. So what's changed in the last two months that means you need to roll the target out on today's call? And how should I try to reconcile that target with some of your other commentary at the Analyst Day where you were fairly gung ho about the need to invest to find growth?

<A - Brian M. Krzanich>: So I'll start, Stacy. I think you have to take a look at where we're at. You're kind of asking a couple of questions. So first, from the growth standpoint, our position about investing and continuing to really drive growth is absolutely still just as strong as it was back in February at the Analyst Day. And I'd tell you Q1 is a great example of that, with y-over-y growth, another record quarter, coming off a record year and raising the year and forecasting another record year. So I feel very good about the investments we've made, both short term, medium term and long term to drive that growth.

That said, Bob and I have both been looking at, now how do we do that and also at the same time become more and more efficient. And what we've looked at now is that our performance and becoming more efficient in 2016 and taking about 1% out of our spending as a percent of revenue was very successful. We understand how we did that. As we looked at our first quarter performance and what we believe we can take out for the rest of 2017 is another percent of spending as a percent of revenue, slightly more actually.

And then I think one of the things that Bob's really brought in as the CFO is new ways of thinking and new looks at how to continue that trend. And so taking a percent a year or so out of our spending as a percent of revenue is something we think we can go and accomplish while driving that growth. And that is effort that we've spent over the last couple months, really digging into those details. And that's why we felt like it was important we came out now and really said, yes, we are committing to that. We understand the details behind it and we've got a history now that tells us we can say it with confidence.

<Q - Stacy Aaron Rasgon>: Got it. For my follow up, I'd like to ask about DCG margins. So they were 35% this quarter. It doesn't sound like there was anything structural like the warranty charge that hit last quarter. This sounds like the drivers around allocation and everything else that you've discussed. But it's still quite a bit lower than I think most would have expected. How should we think about that margin profile trending through the year as the Skylake parts ramp? And do you think for the full year, you'll actually be within the Data Center margin targets that you provided at the Analyst Day?

<A - Robert H. Swan>: Yes, I would, Stacy, we kind of provided a long-term outlook of 40% to 45% operating margin for DCG.

<Q - Stacy Aaron Rasgon>: Long term.

<A - Robert H. Swan>: Our expectations for this year were for growth, as Brian indicated earlier, high single digit and at the lower end of that range of the 40% to 45%. In Q1, just to be clear, the 9 point drop in margins, 7 points of that is attributed to the fact that DCG is a bigger business, and we've indicated it'll be the first on 7-nanometer and a fast follow on 10-nanometer. As a result, it gets a bigger share of our technology development and our SG&A allocation. So 7 points of the 9% decline are simply a result of how we allocate cost to the business segments.

I think in terms of going through the course of the year, the things that are going to change, as Brian indicated, we got strong product offering coming out in H2. We expect ASPs to improve as we go throughout the year. As you know, Q1 is always the lower end of margins from a seasonal perspective. And we expect product costs to improve as we continue the transition from 22 to 14 nanometer.

So it's in line with our long-term expectations. No change. Our outlook for 2017, no change. The biggest fundamental driver to margin performance is simply the success of the Data Center business in terms of growing, in terms of being a bigger chunk of the overall business, in terms of being a beneficiary of leading-edge technology. It bears 7 points impact because of the higher burden of our allocations on the business. So we feel good on where we are for the quarter and where we're positioned for the full year.

<Q - Stacy Aaron Rasgon>: But those allocation charges aren't going to go away anytime soon. It sounds like they're going to hang around for a while, if you're talking about 10 and then 7 nanometer.

<A - Robert H. Swan>: Yeah, that's true, and that's reflected in our 40% to 45% and our improvement throughout the course of the year.

<Q - John William Pitzer>: Bob, maybe just to follow on to Stacy's question, just some clarification around the allocation charges. The 7 points in March, does that represent a peak? Or do we run into a situation where as absolute costs for 7 and 10 go up throughout the year, you could see op margins in DCG continue to be down just because the percent doesn't change but the dollars are going up?

<A - Robert H. Swan>: Yeah, our expectation is the operating margins for DCG will improve by quarter throughout the year. Again, it will be a function of the normal seasonality of the profitability of the business. It will still bear a significant chunk of our tech development and SG&A costs, but you may remember that our development costs during the course of the year, as we indicated I think maybe last couple quarters, that comes down from H1 to H2. So as that cost comes down, all of our businesses will benefit from lower costs.

And then the third thing, the real fundamentals of the business are higher ASPs with good product with outstanding performance and getting better and better yields on our 14-nanometer product going through the fab will be benefits to the profitability of the business. The lowest point Q1 expectations will grow each quarter throughout the year, and we would expect full-year operating margins despite higher absorption, higher burden from our indirect costs at roughly 40% for the year.

<Q - John William Pitzer>: That clarification's helpful. And then, Brian, as my follow-up, one of the strengths of your model is just the FCF that you can generate, which enables you to reinvest organically back in the business. And you're clearly doing it this year on the CapEx front with CapEx up over 20% y-over-y. I guess what I'm trying to understand is, should we be thinking of CapEx this year as sort of the new norm with rising capital intensity, investments in the Memory business, maybe optionality around foundry? Or is the $12B this year sort of something that we should think about as being an above trend or particularly high spending year? Any color on that would be helpful.

<A - Brian M. Krzanich>: Sure, John. I'd tell you that the increase in CapEx that you're seeing this year is something that we see as unique, but my guess is that we'll have to continue it for maybe one year more or so as we continue to build out that memory factory. But if you take a long-term view, I don't expect us to run these kinds of CapEx levels. We'll always make good investments, so in a place like this where we think we have differential technology like 3D NAND and our Optane/3D XPoint, I'm going to look for ways to invest that have a positive NPV. But from this current view, we probably have another year, and then probably go back down to what we'd consider a more normal rate.

<Q - David M. Wong>: Can you give us some idea within Data Center of what revenues you're currently seeing from Xeon Phi? And also you mentioned acceleration services at Alibaba. Can you fill us in on any other key customers adopting Xeon Phi, FPGAs or any of your other accelerators?

<A - Brian M. Krzanich>: Sure. So we don't break out revenue on specific products like Phi, but Xeon Phi does continue to ramp and grow from a product standpoint. We have some additional products that will launch in H2 this year around Xeon Phi from Knights Mill. And from an FPGA or other accelerators, we continue to get several of the large cloud providers, networking providers who are continuing to use our FPGAs.

But again, we don't break out on a by-customer standpoint, but we still are committed to our 6% roughly growth on the PSG business this year. Q1 was down just because of some unique – there was some extra buying in the latter half of last year around some cloud, and the networking guys are typically down in Q1. So it hit its forecast, but it's down y-over-y. We think we'll recover that as we go through the rest of the year from an FPGA.

And then as we go out through H2 this year, the first of the products comes out in silicon from our Nervana acquisition which is another form of AI acceleration. We'll get that first silicon. We'll start to work with customers and you'll see that come in 2018 as an additional accelerator adding to our full AI portfolio.

<Q - Timothy Arcuri>: I just wanted to clarify your answer to John's question. So in terms of the $300mm y-over-y burden on DCG operating margin that's due to the cost allocation, is that sort of a fixed number going forward? Or does that absolute number get better through the year?

<A - Robert H. Swan>: There's two dynamics on our total pool of indirect costs that are going on for the company. One is our SG&A indirect costs are coming down. Brian referred to that earlier about the progress we've made on direct spending overall coming down another 1 point plus during the course of the year. And second, our R&D cost particularly as it relates to Moore's Law for 10-nanometer and 7-nanometer goes up little bit. So during the course of the year, our overall cost will be roughly flat that we'll be allocating to the businesses. And DCG will get a larger portion of that than it has historically, roughly impacting the business by 7 points because of its bigger size and because of the decision to have it be a beneficiary of Moore's Law sooner than it has historically.

<Q - Timothy Arcuri>: Thank you. And then as a follow-up, so I just wanted to clarify, so the NSG, so you're expecting to still lose money into H1 next year and is that what you're saying? Or you're saying that for the entirety of the year next year you'll be profitable. Thanks.

<A - Brian M. Krzanich>: So separate out again and remember we're making the large investments in Dalian, so from a pure 3D NAND perspective, we said it goes breakeven and beyond in the latter half of this year. So for next year, our standard NAND business will be profitable. 3D XPoint plus the Optane product is additional investments we're making. We said that that's in H2 next year it goes to breakeven and the overall business does as well. We haven't gotten any more granular than that for right now.

<Q - Ross C. Seymore>: Wanted to ask the first one on the OpEx side of things, and I applaud the 30% target. It's good to see that commitment, but I wanted to focus a little bit more on the near term. In Q1 it was about $100mm above what you had guided and Q2 is a bit above what I expected too, especially given McAfee. So could you give us a little color on why it was a little bit higher in Q1? And where we are in the restructuring benefits and the McAfee benefits, if you can do anything to size either of those in the near term, that would be helpful.

<A - Brian M. Krzanich>: Yes, I think first quarter, a little bit over. I'd characterize it primarily in the round. I think for H1, we're basically implying $10.6B of OpEx and we're committed to our $20.5B for the full year. So $10.6B in H1 drops to $9.9B in H2 and there's really two primary drivers to that. One is, as you alluded, the exit of McAfee will be roughly $300mm out from H1 run rate. And then secondly, just the completion of our previously announced restructuring programs will continue to bear fruit on lower OpEx in H2. So H1 $10.6B, H2, $9.9B. McAfee exit, continued execution, and feel good about full year $20.5B.

<A - Robert H. Swan>: And just a reminder, that $20.5B takes another roughly 1%, slightly more, out of our spending as a percent of revenue. So that's all baked in.

<Q - Ross C. Seymore>: Great. Thanks for that detail. I guess my follow-up then switches to the gross margin side of things. It's staying solid, and I might be at the risk of a rounding error in this question as well. But considering that you raised your revenues and ASPs were a big portion of that, usually that's a pretty good follow through. So the fact that you're keeping the gross margin guide for the year flat at 63%, are there any incremental offsets to the goodness that the revenue and the ASPs would generate? Or is it, in fact, just rounding?

<A - Robert H. Swan>: I don't know if it's rounding or not. I'd say $0.5B of revenue upside at kind of roughly gross margin dynamics of the business will fall through at an additional $0.05 of EPS, so we feel great about that. I think the dynamics of more the business is in H2. ASPs will improve for Data Center. As Brian alluded earlier, we've assumed that ASPs will decline a little for the Client business. And the fast growth of Memory and modem will have a negative mix impact on gross margins. So I think when we take that altogether through the year, we felt a fairly consistent 63% with all those puts and takes throughout to the course of the year. And Q1 was where we expected, Q2 consistent with Q1 and full year.

<Q - Kevin E. Cassidy>: Just on the capacity that you're building in Dalian, can you say what percentage increase you're getting? Or is it directly correlated to the revenue growth that you see in the Memory Group?

<A - Brian M. Krzanich>: Percentage. So, A, yes. The growth in the Memory business that goes through the rest of this year is largely driven by the ramp of the Dalian factory, along with some assumptions around strong ASPs as demand continues to outpace supply in the market in general. And so if you take a look from here on, in fact 2017, but then as we go out into 2018 beyond, Dalian will continue to be the driver of growth of that business.

<Q - Kevin E. Cassidy>: I guess another way to phrase the question is, what's the bit growth? Most other memory companies give a projection of what their bit growth is.

<A - Brian M. Krzanich>: Yes. I don't think we've actually ever given a bit growth, so that's not a public number. We can take a look at that for next quarter as to whether we want to start adding that to our normal distribution. But what we've always talked about is growth of the business from a profit or revenue standpoint and overall growth.

<Q - Kevin E. Cassidy>: Okay. Thank you.

<A - Brian M. Krzanich>: Partly because remember, more and more of that business will become things like 3D XPoint slash Optane. And bits will be a little bit different there, right, not all bits are going to be created equal. That's a very differentiating technology. It's really got performance of DRAM-like devices with NAND non-volatility and pricing in between. And so those bits are a bit different than, say, typical NAND bits, and I wouldn't want to just lump those all into a standard number. So we need to think about how we'd really go and present this to you if you want to think about it from a bit standpoint. And that, it's around 5% of the business this year. But as you go out into next year and beyond, it becomes a larger and larger percentage as we see more and more products, especially in the data centers, use the Optane technology.

<Q - Kevin E. Cassidy>: Right. And maybe if I could ask that question too of Optane. When would it transfer to China?

<A - Brian M. Krzanich>: We haven't talked about a transfer date to China yet.

<Q - Kevin E. Cassidy>: Okay.

<A - Brian M. Krzanich>: So that hasn't been made public right now. Right now, Dalian is 3D NAND.