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ADI - Q1 2019 Analog Devices Inc Earnings Call

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OVERVIEW:

Co. reported 1Q19 revenue of approx. $1.54b and adjusted diluted EPS of $1.33. Expects 2Q19 revenues to be $1.5b and adjusted diluted EPS (excluding special items) to be $1.30.

CORPORATE PARTICIPANTS

Michael C. Lucarelli *Analog Devices, Inc. - Director of IR*

Prashanth Mahendra-Rajah *Analog Devices, Inc. - Senior VP of Finance & CFO*

Vincent T. Roche *Analog Devices, Inc. - President, CEO & Director*

CONFERENCE CALL PARTICIPANTS

Ambrish Srivastava *BMO Capital Markets Equity Research - MD of Semiconductor Research & Senior Research Analyst*

Christopher James Muse *Evercore ISI Institutional Equities, Research Division - Senior MD, Head of Global Semiconductor Research & Senior Equity Research Analyst*

Craig Matthew Hettenbach *Morgan Stanley, Research Division - VP*

Harsh V. Kumar *Piper Jaffray Companies, Research Division - MD & Senior Research Analyst*

John William Pitzer *Crédit Suisse AG, Research Division - MD, Global Technology Strategist and Global Technology Sector Head*

Stacy Aaron Rasgon *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Thomas James O'Malley *Barclays Bank PLC, Research Division - Research Analyst*

Tore Egil Svanberg *Stifel, Nicolaus & Company, Incorporated, Research Division - MD*

William Stein *SunTrust Robinson Humphrey, Inc., Research Division - MD*

PRESENTATION

Operator

Good morning, and welcome to the Analog Devices First Quarter Fiscal Year 2019 Earnings Conference Call, which is being audio webcast via telephone and over the web.

I'd now like to introduce your host for today's call, Mr. Michael Lucarelli, Director of Investor Relations. Sir, the floor is yours.

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

Thank you, Cheryl, and good morning, everybody. Thanks for joining our First Quarter Fiscal 2019 Conference Call. With me on the call today are ADI's CEO, Vincent Roche; and ADI's CFO, Prashanth Mahendra-Rajah. For anyone who missed the release, you can find it and relating financial schedules at investor.analog.com.

Now onto the disclosures. The information we're about to discuss, including our objectives and outlook, include forward-looking statements. Actual results may differ materially from these forward-looking statements as a result of various factors, including those discussed in our earnings release and in our most recent 10-Q. These forward-looking statements reflect our opinion as of the date of this call. We undertake no obligation to update these forward-looking statements in light of new information or future events. Our comment today about ADI's first quarter fiscal 2019 financial results and short-term outlook will also include non-GAAP financial measures, which include -- excludes special items. When comparing our results to historical performance, special items are also excluded from these prior quarter and year-over-year results. Reconciliations of these non-GAAP measures to the most directly comparable GAAP measures and additional information about our non-GAAP measures are included in today's earnings release.

As a reminder, the first quarter of 2018 was a 14-week quarter. In addition, this is the first quarter of our adopted ASC 606 or sell-in accounting. We have restated our historical financial statements to conform to this standard, and posted a 2-year quarterly end-market look back for revenue on our investor site. All comments during today's call on revenue growth and our commentary during Q&A will exclude this extra week and be on a sell-in basis, unless otherwise stated.

In addition, as we move to sell-in accounting and further refine LTC's product mapping in the channel, we have adjusted approximately $80 million of annual revenue from communications to consumer. The new mapping does not impact industrial or automotive revenue.

Okay. With that, I'll turn over to ADI's CEO, Vincent Roche. Vince?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Thank you, Mike, and a very good morning to everybody. The first quarter of fiscal 2019 was another very successful quarter for ADI. In what is a challenging macroeconomic environment, we're executing soundly and delivering strong results. Revenue of $1.54 billion in the first quarter came in at the high-end of our guidance, led by our strong year-over-year growth in our B2B markets. This growth was driven predominantly by continued strength in our communications market related to ongoing 4G upgrades and initial 5G deployments. Adjusted operating margins of over 41% were above the midpoint of guidance, as we balanced our strategic investments with prudent discretionary spend. All told, adjusted EPS was $1.33, also at the high-end of guidance.

Over the past 12 months, we have generated over $2.1 billion in free cash flow or 35% of revenue, which places ADI in the top 5% of the S&P 500. And over that same time period, we've returned more than 100% of free cash flow to our shareholders after debt repayments.

Now while macro uncertainties continue to exist, our strong execution and results enable us to continue to invest in extending over franchise in strategic areas where we see attractive opportunities for future growth. To that end, we're investing record levels of R&D to push the boundaries of innovation and expand the breadth and depth of our franchise. In addition, we've increased our investments in our go-to-market activities to further broaden and deepen our customer reach and our engagements.

The strength and resiliency of our business model allows us to innovate regardless of business conditions. This ability is imperative given the long life cycles in our markets, where average product life span is a decade or indeed more. And while some competitors pull back and lose momentum in uncertain times, we plan to continuously invest to build upon our virtuous cycle of innovation-led growth.

In my 30-plus year career with ADI, I've never been more confident or excited about our prospects than I am today. The third wave of information and communications technology is creating an inflection in the analog industry. And we've built a product portfolio aimed at favorable macro trends that I believe will provide tailwinds for years to come.

Now I'll provide you with some examples of what we're seeing in our B2B market specifically.

Today, industrial customers are balancing CapEx deployments with tariff uncertainty. However, our customers remain focused on digitizing the factory and securing the efficiency and productivity that will fuel their future growth. The move to the digital factory requires more high-performance signal processing and power management, additional sensors and more robust connectivity. These are all areas where ADI excels.

On the automotive front, vehicle unit growth has stalled recently. But the real growth drivers, electric and autonomous vehicles, are in the nascent stages. Electric vehicles represent only 1% of worldwide sales, but industry reports suggest this will climb to more than 15% over the next decade or so. The powertrain in an electric vehicle opens the opportunity for us to address up to 3x the content compared to combustion engines.

Today, we enjoy the luxuries of Level 2 autonomous vehicles, but the cars of the future will require higher precision and up to 4x more sensors per car to provide the necessary level of safety for a fully autonomous vehicle. And it's not just about radar or cameras. We expect that these cars of the future will require LIDARs and IMUs as well. ADI is uniquely positioned to provide the necessary building blocks across all these sensing modalities as well as the analog and mixed single processing, RF and microwave connectivity, algorithms and power management to make the autonomous vision a reality.

In communications, carriers are looking to upgrade both the wireless networks and the optical backbone to deal with the ever increasing deluge of data being created and transmitted. This additional data intensifies the need for spectral, space, thermal and cost efficiency. And with our comprehensive portfolio of software-defined mixed signal, RF, microwave and power management technologies, we're creating very compelling solutions for our customers as they upgrade 4G networks and begin the introduction of 5G systems.

An important bridge between 4G and 5G is the introduction of massive MIMO radio systems. And ADI's software-defined transceiver technology is at their core. These upgrades to massive MIMO systems are just beginning today. And the increase in radio account expands our content opportunity by up to 4x when compared to traditional 4G systems.

This phase will be followed by network expansions to higher frequencies to increase bandwidth as well as the upgrade of the optical backhaul and virtualization of the network to more efficiently move the data. This next wave will once again create the opportunity for ADI to address additional content, both in the radio as well as in the optical network.

We see these upgrades towards 5G as a multi-year cycle that's just beginning, and are expected to provide tailwinds to our business well into the future.

And lastly, in health care, the dual impact of an aging global population and the pressing need to more economically and effectively manage wellness is driving continued investments in our products by our customers. Here we're complementing our high-end component franchise with highly integrated subsystems, thereby extending our addressable market to capture new levels of value. For example, in digital x-ray, we're creating highly integrated photons to bit subsystems that enable our customers to deliver high fidelity images at lower radiation dosages. Separately, ADI's deep expertise in vital signs monitoring and ultra-low power electronics enable clinical-grade performance under battery power, allowing us to deliver high accuracy, portable monitoring at virtually any point of use.

Now in closing, as the saying goes, a rising tide lifts all ships, the true test of a company's strategy, execution and value is its performance during a low tide. Now we've chosen a strategy that focuses on innovation, diversity across technologies, markets and applications and continuous improvement across every aspect of our performance. And the results speak for themselves. We're confident that our ethos and heritage of innovation, leadership in high-performance analog, deep relationships with our customers and alignment to favorable macro trends positions us to create to continue to outperform, capture more value, expand our addressable market and deliver strong results for our shareholders.

And so with that, I will hand it over to Prashanth, who will bring you through more detail.

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Thank you, Vince. Good morning, everyone, and let me add my welcome to our first quarter earnings call.

My comments today with the exception of revenue and non-op expenses will be on an adjusted basis, which excludes special items outlined in today's press release. As a reminder, the first quarter of 2018 was a 14-week quarter, and we have now adopted ASC 606 or sell-in accounting. We have restated our historical financial statements to conform. And as Mike mentioned, we've also posted a 2-year quarterly end-market look back for revenue on a sell-in basis.

To normalize our growth rates and give you a like-for-like comparison, my prepared remarks and our Q&A commentary will exclude this extra week and will be on a sell-in basis, unless otherwise stated.

Now onto the quarter. In the face of geopolitical uncertainty, we are pleased to report strong first quarter results with revenue, operating margin and EPS all coming in above the midpoint of our guidance. Additionally, we are delighted to have increased our dividend by almost 13%, the largest increase since 2013. And we also raised our dividend growth target to 7% to 15% annually. This reflects our strong financial results as well as our optimism regarding ADI's future.

Before diving into the income statement, let me first cover the end markets. Our first quarter B2B revenue increased 10% year-over-year, led by exceptional growth in the communication market, driven by ongoing momentum in 4G and the initial 5G deployments. The industrial market represented 47% of sales in the quarter and revenue was roughly flat compared to the year-ago quarter. Within this highly diversified business, revenue growth in health care, electronic test and measurement, aerospace and defense were balanced by weaker demand in factory automation and memory test.

The comms market represented 22% of sales during the quarter and experienced very strong double-digit year-over-year growth, led by strength in wireless. This growth exceeded our expectations and illustrates the strong momentum ADI is experiencing in traditional 4G systems and in the early deployments of 5G massive MIMO. We see 5G as a multi-year upgrade cycle that is expected to deliver continued growth over the coming years.

Our auto business represented 17% of sales in the quarter, and based on sell-through revenue, was essentially flat compared to the year-ago quarter. Overall vehicle unit weakness was offset by double-digit growth in BMS, growth in power management as we bring new products to market and extend our customer reach and ramping sales of A2B. The 6% year-over-year reported growth from our end-market breakout is primarily due to sell-in accounting as we moved some customers from direct to distribution during the quarter.

And lastly, our consumer business represented 14% of sales in the first quarter. As expected, revenues declined year-over-year. However, portables declined less than expected.

Now onto the P&L. Revenue for the quarter was at the high-end of our guidance at approximately $1.54 billion, up 6% year-over-year. Gross margin came in at 70.3% and lower year-over-year due to end-market mix and lower utilization rates. OpEx in the quarter was $448 million, down slightly sequentially and below the midpoint of guidance, as we balanced our strategic investments with prudent discretionary spend. This translated to an operating margin of 41.2%, which was at the high-end of our guided range. Non-op expenses in the first quarter were $56 million, unchanged from 4Q, but lower than a year ago, due to our debt reduction of $1.2 billion over the past year.

Our tax rate for the quarter was just above 14% and at the lower end of outlook of 14% to 16%. All told, adjusted diluted earnings per share from the first quarter came in above the midpoint of guidance at $1.33.

Now moving on to the balance sheet. Inventory dollars increased slightly sequentially, while days were flat at 117 compared to fourth quarter. As a reminder, in the coming quarters, we will begin to build bridge inventory ahead of the closure of our front-end and back-end facilities that we expect to deliver another $100 million of cost synergies. So we plan to modestly increase our inventory days temporarily until these closures are complete.

Distribution inventory days were down, both sequentially and year-over-year and remain in our target range. CapEx in the first quarter was $91 million or 6% of sales. For the full year, we anticipate CapEx may run modestly higher than our 4% model due to the co-location of our product and business development teams and additional capacity to support future linear growth. This will be a temporary deviation from our long-term model.

Free cash flow was $2.1 billion on a trailing 12-month basis. Over the past 12 months, we have returned 100% of our free cash flow to shareholders through dividends and buybacks after debt repayments.

In the first quarter, we repaid $100 million of debt, paid $178 million in dividends and repurchased $227 million of our stock or roughly 2.5 million shares.

Now onto guidance, which again with the exception of revenue and non-op expenses is also on an adjusted basis, excluding items outlined in today's release. As a reminder, our guidance is based on sell-in or POA accounting. For context, during 2018, the change in channel inventory for the year was minimal, as channel inventory increased in the first half and was reduced in the second half of the year. On average, over the past 3 years, channel inventory impacts annual revenue by about 1%, while quarterly variances could be and have been larger.

Second quarter revenue is expected to be $1.5 billion, plus or minus $50 million. At the midpoint, we expect our B2B markets of industrial, automotive and communications in the aggregate to increase slightly year-over-year, led by the communications market. At the midpoint of guidance, we expect second quarter operating margin to be up slightly sequentially at 41.3%.

Non-op expenses are expected to be basically flat sequentially, and we are planning for our tax rate to be towards the lower end of our previously guided range of 14% to 16%. Based on these inputs, diluted EPS, excluding special items, is expected to be $1.30, plus or minus $0.07. All in, it was a strong quarter to kick off fiscal '19. And while we are mindful of the economic uncertainty around us, I will echo Vince's optimism and say that we are extremely confident in the long-term growth opportunities for ADI.

And with that, I'll turn over to Mike to start our Q&A.

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

Thanks, Prashanth. Okay. Before we move to Q&A, one last reminder from IR. Our growth commentary will be on a normalized 13-week basis and on sell-in, unless we otherwise state it. Now let's get to the Q&A. (Operator Instructions) Operator, can we have our first question, please.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) And our first question comes from Ambrish Srivastava from BMO.

Ambrish Srivastava - *BMO Capital Markets Equity Research - MD of Semiconductor Research & Senior Research Analyst*

I just wanted to put your guide with respect to what the peers have reported and guided to. Is it fair to assume that it's really, the sell-in accounting change is one of the bigger factors in your Q-over-Q guide being different than your peers like [Dixon] and Maxim.

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

No, Ambrish, I'm not sure why you'd conclude that. Our guide -- we're not -- as I mentioned, we're not guiding point-of-sale anymore. We're on a sell-in basis. But the guide is at the $1,541 million midpoint of growth -- excuse me, at the $1,500 million midpoint. The guide should be on a year-over-year basis. If you were to take an assumption on flat inventory channel, you would still see a pretty strong sequential or year-over-year growth number there.

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

Ambrish, just to give some context there. As Prashanth said in his prepared remarks, we build inventory in the first half of the year and -- in '18 and this year, we're not planning to build as much. So that would actually be counter to what you said.

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Ambrish, if you take our outlook for the next quarter, 2Q, basically, our days in the channel are flat. So it's certainly not an inventory build or sell-in issue. We run the company on a sell-through basis. So I want to make that clear.

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

Do you have a follow-up, Ambrish?

Ambrish Srivastava - *BMO Capital Markets Equity Research - MD of Semiconductor Research & Senior Research Analyst*

I did. I just wanted to make sure I got that right. A bit longer-term, Vince, on the 5G versus 4G. Can you just help us understand what are the different dynamics architecture wise? And also the content gains that you expect? I know it's multi-flavor rollout, multi-year rollout, but how should we think about your positioning versus what it was in 4G?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Yes. So the 4G build-outs are continuing. I think that will be the story for the next couple of years in terms of revenue contribution to ADI. But of course, 4G is being upgraded. We're adding massive MIMO, for example, to direct the energy and improve spectral efficiency. So I think we have a very high share at the present time in 4G and in the initial stages of 5G. And what we're seeing right now is, as I said, the 4G phase continues. I think there are multiple years left for 4G, it'll be the primary platform. But we're in the initial stages of 5G deployments. But really 5G has yet to materialize. When it comes to looking at the content, I would say, these new generations of 4G create 4x more content value for ADI. And of course, when we move to 5G with a higher frequency systems, the microwave systems and the densification of these massive MIMO systems, there is another bump that we expect to get in content there. So -- and that's, by the way, before we add in the power management portfolio as well. So as I've said before, for every $1 of analog content, of mixed-signal content, there's at least $1 of power. And I'm pleased to say that we are at the early stages of attaching our LT power management portfolio to our 4 and 5G story as well.

Operator

Our next question comes from Tore Svanberg from Stifel Nicolaus.

Tore Egil Svanberg - *Stifel, Nicolaus & Company, Incorporated, Research Division - MD*

First question, I'm intrigued by the investments you're doing in health care. I assume that up until now, that's really sort of a B2B business. But there seems to be a lot of things going on in the consumer side. So should we expect ADI to participate both in B2B and in consumer when it comes to health care?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

It's a good question. Well, most of what we're doing is, for example in the morgue point of use, the clinical grid vital signs monitoring, we are focusing very much on the higher end of the sensing and signal processing activity there. So we're not truly formed with ADI. We are focused on really solving the toughest problems and enabling consumers to wear new health care sensing technologies to predict and help monitor wellness and indeed recovery from health situations. So I would say that the way to think about this story is that we're going to be focused largely on more B2B type activities.

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

Do you have a follow-up, Tore?

Tore Egil Svanberg - *Stifel, Nicolaus & Company, Incorporated, Research Division - MD*

That's very helpful. Yes. Question for Prashanth. Prashanth, you said, as you go through the manufacturing transition, your inventories are going to go up. Can you give us a sense for how much we're talking about here? Maybe you could give us a range on inventory base?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Yes. Sure. Thanks, Tore. So as I mentioned in the prepared remarks, we had committed to some additional cost synergies relating to the shutdown of 2 sites that we acquired as part of the LTC acquisition. And these shutdowns should generate an incremental $100 million of cost synergies, all of which is in cost of goods. To help us through that transition, we're going to be needing to put a little bit more inventory internally under our balance sheets. And hard to kind of pinpoint too much at this early stage, but we're estimating around 5 days is what would be necessary to kind of carry us through the -- bridging the closure of those 2 facilities. And then once those facilities are up and running, we'll bring that off.

Operator

Our next question comes from Stacy Rasgon from Bernstein Research.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Back to the sell-in accounting. So if I compare the new revenue profile with the old one, I noted considerable amount of revenue, particularly from industrial that moved from the second half of '18 to the first half. As you said, you built in the first and sold off in the second, and it shows up in the change. But it was a lot of revenue. Was the magnitude of this draw down bigger than what you would typically see in your ordinary patterns, just maybe given the stronger demand environment we have in the first half. I guess, maybe, just to put in other words, like, is the magnitude of the draw down in the channel that we saw in the second half bigger than what we would see? And is the channel right now leaner than when it ordinarily be in a normal second half?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Thanks, Stacy. Let me break that into 2 pieces. So first, if you think back to last year, it was around summer that we were one of the first companies to indicate that we were beginning to see some challenge in the factory automation space, given what was going on, particularly with China. So being proactive on that, we began to constrain the amount of inventory going into the channel in preparation of the uncertain times ahead. So yes, last year, we did see a more significant kind of correction to inventory in the channel in the second half given the macro environment. As we -- so now setting that up for this year, now that we are on sell-in accounting, that creates for some tough comps in the first half. And again, as we move into the second half now, we'll also be lapping the softer business environment as well as the inventory channel correction. So we do feel pretty good that the growth kind of gets better for industrial from here on forward. And in terms of what's in the channel, today, we're at about 7.5 weeks, and that's kind of right in the range that we guide to. As Vince mentioned, and this is important, we focused running the business on a POS basis. So the inventory in the channel for us is striking that balance in what is necessary to serve our customers, and it's less about kind of managing a particular revenue number. It is -- POS is what drives our decisions on what we put in the channel.

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

Thanks, Stacy. Do you have a follow-up?

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

I do. I wanted to ask about OpEx. So you were kind of flattish year-over-year in Q1. You're guiding kind of flattish in Q2. But at the same time, you're talking about continually investing into opportunities. So I guess, in particular, giving the current situation which does seem somewhat uncertain, how should we be thinking about OpEx growth maybe relative to revenue growth as we go through the rest of the year?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Yes. I would say that, if you think historically, there has been a sort of a meaningful change in OpEx when we move from first quarter to second quarter. We told you in the last earnings call that, that would not be the case this year, that our first quarter would be a little bit higher but that -- and there were some one timers that we talked about in the last call, but we were behind that. And as we move through the balance of the year, we're expecting OpEx to be relatively flattish. The biggest driver on frankly will continue to be variable compensation, which is designed to adjust the spend in line with the profit and the revenue growth. R&D today runs at about 18% of revenue, and we really consider that fully funded. So we will work within that envelope to deliver the product development needs that are required.

Operator

Our next question comes from Harsh Kumar, Piper Jaffray.

Harsh V. Kumar - *Piper Jaffray Companies, Research Division - MD & Senior Research Analyst*

Gross margin came down, and it seemed that was just mix with sort of B2B sort of hurting a little bit and consumer coming in stronger. How are you expecting to manage the factory or the fab, and therefore, the utilization and gross margin in the coming few quarters?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Well, first quarter, we had lower utilization. But we expect that utilization will increase in the second quarter and through the rest of our fiscal year here. So we'll, I think, keep pretty high level of utilization. And also, the 70.3% margins that we posted in the first quarter, as the mix towards industrial improves, we would expect also the gross margin to improve. So I think, utilization is in good shape across the company, and I think as well we are probably seeing what would be the lower point of the gross margin actively right now, and that will certainly improve as the industrial business improves.

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Harsh, your comments are correct. Just one clarification there. It was growth in consumer, but it was also the growth in communications. So both of them were responsible for the end-market mix. And do remember that we are left -- this was the current quarter where we have the typical holiday shutdown. So utilizations do -- are at the lowest point typically over the holiday season. So with that, we'll go to our next caller.

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Do you have a follow-up, Harsh?

Harsh V. Kumar - *Piper Jaffray Companies, Research Division - MD & Senior Research Analyst*

Yes. So quick question on the automotive. So I got excited looking at your automotive number before realizing that there's a lot of sell-in stuff going on. Could you give us some color on how it held up if you back out the sell-in? And if you are unwilling to do that, maybe talk about, you had sort of laid out some targets on when you start to see some real growth, mid- to high-single digit kind of numbers in automotive a year or even slightly more than that out. How do you feel about that number -- that time frame?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Great. Great, Harsh. Thank you. I'm going to do the first part and let Vince take the second part. So as I said in the prepared remarks, we moved some customers who were direct into the channel. So as a result, there was a little bit build and inventory associated with that. Normally that would not be revenue for us, remember that. And the growth, if you want to think about what is the auto growth due to sell-in, that would have been a flat number. So auto growth in the quarter, as we think about it, natural demand was flattish. And we would say that the -- for the first half, we kind of expect that to be flattish because the second quarter is going to have the corresponding offset from what we -- from the inventory build that we had in the first quarter. Channel inventory overall was kind of minimal quarter-over-quarter. So auto was up, but the other markets were down. With that let me -- let Vince talk to kind of longer-term auto growth.

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Yes. So we're expecting to the -- through 2018, the ADI specific, the legacy ADI portion of our business grew in the high-single digits. The LT portion was in the lower single digits. But let me tell you a couple of things that we've been driving hard in our business. Or BMS, the battery management solutions that were legacy LTC, we've been growing that in double digits over the past 3 quarters or so. And we're looking at the remainder of this year, the full 2019 as a double-digit growth year in that particular area. And in fact, I think Prashanth indicated in his CapEx remarks that one of the reasons we're increasing CapEx is to enable us to put the equipment in place to get our products to market faster in that particular area and to put the test coverage that we need as well in our back-end. I'm glad to say as well that we're winning incremental power sockets in the automotive sector. We're bringing power to new customers. And we've seen just in this last quarter, in fact our power portfolio grew in the automotive sector on a year-over-year basis. Legacy ADI infotainment business continues to flourish, and we're winning many premium audio sockets. And also attaching LT power again to everything that we do in the automotive area. So we've just launched as well some very exciting high-resolution radar technology at the 77 gigahertz level, so that's yet to come. But all the early indications are that we're starting to get traction there. So I think we've many technologies and product areas that are well aligned with the critical themes in automotive around autonomy and electrification. And we now have the best portfolio in the industry to attack these opportunities.

Operator

Our next question is from Craig Hettenbach from Morgan Stanley.

Craig Matthew Hettenbach - *Morgan Stanley, Research Division - VP*

The commentary on B2B up slightly, can you frame that, if you look it between comm, industrial and automotive, just kind of a rough sense of how you expect those markets to trend year-over-year?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Sure. Craig, comm will lead that growth, I would say. Industrial will be down year-over-year. Remember, last 2Q was a very, very strong quarter. I think we grew double digits sequentially in 2Q. That was kind of our peak industrial revenue a year ago. It was a tough comp, plus we also talked about the inventory change in the channel year-over-year. Automotive is going to be down year-over-year, as we talked about the sell-in versus sell-through accounting. So for auto, I would think, look at basically first half '19 flattish versus first half '18.

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

And that is flattish auto with unit -- with vehicle unit sales down. So we do recognize that, that is a good accomplishment given the decline in vehicle production.

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

So then comms will be another strong double-digit grower year-over-year. Pull that together, increases slightly sequentially. And that's even with, I'll recall, the offset of auto being (inaudible) because of the sell-in accounting. If you took that away, B2B is up probably 2%, 3% year-on-year.

Craig Matthew Hettenbach - *Morgan Stanley, Research Division - VP*

Got it. Appreciate the color there. And then, Vince, just a question. Understanding there's some near-term cyclical pressure on the industrial market, can you talk through just design engagements with customers and things that once you see some of the cyclical pressure ease, how that business could get kind of back on track?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

It's a good question, Craig. We have an opportunity pipeline now both on legacy ADI and LT legacy power products, in particular, that is at an all-time record high. So we're basically converting that pipeline across-the-board, and we've a broader and deeper position in the automation sector. We've extended our reach into electronic test and measurement, which complements our more vertically oriented memory test area quite well. And the energy sector as well is doing well for the company and on a year-over-year basis has been growing. So -- all the things we do around sensing, measuring, interpreting, powering and connecting, those technologies are getting used in more and more places in the industrial sector and in the aerospace and defense as well. So we have a bigger portfolio. We've got more sales and application resource out there, deeply engaging with our customers every day. So my sense is, if I were to put a target growth number on it, I think we have the opportunity to grow consistently in the mid- to high-single digit area over the coming 5, 7 years.

Operator

Our next question comes from Blayne Curtis, Barclays.

Thomas James O'Malley - *Barclays Bank PLC, Research Division - Research Analyst*

This is Tom O'Malley on for Blayne Curtis. Just want to cover something you guys mentioned early in the call. I think you said that you moved $80 million from comm to consumer. Could you describe what you're moving over and kind of the growth profile of that chunk of revenue?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Tom, this mainly relates to prosumer business. So think of like Polycoms and that type of stuff for conference calls, that -- those type of things we moved from comms, the legacy for Linear were in communications, we put those into consumer where ADI puts them, as prosumer typically is a GDP-plus business growth wise.

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

It was customer mapping as we continue to finish the integration process with LTC.

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Yes. So it's basically the nonportable stuff, and it looks and feels like a B2B business. Lots of customers and products and longer product life cycles when compared to the portable area. So that's the change that's taking place.

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

Do you have a follow-up?

Thomas James O'Malley - *Barclays Bank PLC, Research Division - Research Analyst*

Yes. I guess, just moving on more towards the comm side. You guys were talking about how 4G is really still strong and you guys are seeing the 4x content increase for massive MIMO ahead of what people are really excited about in 5G. Can you kind of talk about the timing of that? And how much legs, you think, are left of that before that 5G transition should that happen in the next couple of quarters?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Well, different people have different definitions of what constitutes 4G and 5G. I would say anything that is 4G with a massive MIMO connected to it is 4.5G, some people call that 5G. So that's already in play, and that's one of the strongest growth drivers in our portfolio. And I think that will be the story for, at least, another 12 to 18 months. I think it's going to be the very advanced 4G technologies that are beginning to utilize that bridge technology to 5G, which is massive MIMO. I see true massive -- true 5G being a 2021, '22 introduction point. So I think -- you will see trials, of course, in the meantime of the classical microwave-driven 5G, but I think that's still a couple of years out.

Operator

Our next question is from William Stein, SunTrust.

William Stein - *SunTrust Robinson Humphrey, Inc., Research Division - MD*

First, I'd like you to remind us about the capital allocation strategy for the company. There was a dividend increase. Also taking a step back, you're now below 2 turns of net leverage. There was for a time a concern around leverage that's clearly behind us now. But the last 2 acquisitions you did, Hittite and Linear, I think, are proving very successful. And in the context of the broader capital allocation strategy, I'm hoping you might comment on your appetite for M&A, which has been, maybe gotten a little bit out of style in the last year or so, but I would suspect should still be on the top of ADI's mind given the success you've had?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Well, the first call on our capital is to make sure that we invest to the fullest extent in building the greatest products and getting these products to market. So that's the first call. And we're investing, in fact our OpEx is at a record level this year, our fixed OpEx. And so that's the first call on capital. We have committed to returning all our free cash flow after debt repayment to our shareholders. We -- that's the track we're on. We are very happy with where we are right now as a company with the combination of ADI legacy, Hittite and LT. So we're still integrating LT and creating the leverage that we know we can create with that franchise. So that's where we are right now. And we've been doing some tuck-in acquisitions over the last 12 months, we'll continue to do that, but I think, that's the way to think about it right now.

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

Do you have a follow-up, Will?

William Stein - *SunTrust Robinson Humphrey, Inc., Research Division - MD*

Yes. I'm wondering if you can comment on the degree to which you believe the trade conflict has been hurting your business. I think it's clear, there has been some effect, maybe not as much as others because, in particular, the comp strength, but to what degree you see that already embedded in orders? And what you think sort of the future holds if there is a trade agreement in regards to your backlog and your trend of business?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Let me start and then let Vince add some more color. I just want to get to your question on orders. So -- I know that's probably on many people's minds. January orders were stronger than December. Now that's not unusual for us, but it is a good sign, and that was strength in orders across all of our B2B markets. Now February has Chinese New Year, so there's a lot of noise in that. But going into the Chinese New Year, orders remain strong. And while it is a noisy metric, and we do -- but we do look at it, our 4-week book-to-bill is higher than both our 8-week and our 13-week. But I do want to emphasize that is a very noisy metric, but for whatever, that's worth.

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

I think that's fine, Prashanth.

Operator

And our next question comes from John Pitzer, Crédit Suisse.

John William Pitzer - *Crédit Suisse AG, Research Division - MD, Global Technology Strategist and Global Technology Sector Head*

Both of mine are relative to the comms business. I guess, Vince, when I adjust for the extra week and the change in accounting, the comms business was up north of 40% year-over-year in the January quarter, just excellent results. But as you start to kind of lap the large numbers and hard compares, what do you think the sustainable growth rate in the comms business should be over a longer period of time? I guess, if you look at the last several quarters, you've grown revenue on a quarterly basis by almost $100 million. I'm wondering if you could help us break down the buckets of that growth, which means sort of massive MIMO, 5G, Hittite? And maybe to follow on to Will's question. There is some concern out there that perhaps you're seeing a pull-in from some of your Chinese customers relative to concerns about their ability to get parts or tariffs. Are you seeing any sort of pull-ins in these numbers or not?

Vincent T. Roche - *Analog Devices, Inc. - President, CEO & Director*

Well, I think, there probably is some. And I don't certainly think are natural in the numbers incidentally. But there is obviously some pull-in. There is anxiety around the current trade tension situation. But also remember, there are -- particularly in China, there are planned releases of advanced 4G systems and the trialing of 5G systems, so that's taking place. I think our story is dominated primarily by the fact that we have much more content than we've ever had historically in these systems of ever increasing complexity. It's -- of the top of my head, John, it's hard to give you a breakdown of what the individual pieces are in terms of the contribution from legacy ADI, Linear and Hittite. But as I mentioned in the prepared remarks and certainly in the Q&A here, we're beginning to see the early stages of LTC power being adopted. So the portfolio today is largely dominated by legacy ADI mixed signal. We're at the early stage of adoption of LT. And Hittite is a tremendous source of strength in the higher frequency -- connect the -- products that connect to the antenna. And all that said, my expectation is with the content and with the expectations of our customers, that, that business will grow at double-digits for the next several years.

John William Pitzer - *Crédit Suisse AG, Research Division - MD, Global Technology Strategist and Global Technology Sector Head*

And then Vince...

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

Go ahead, John.

John William Pitzer - *Crédit Suisse AG, Research Division - MD, Global Technology Strategist and Global Technology Sector Head*

We can take it off-line. Well, I tended to say on the 4x content story, what percentage of your comps revenue does that content story cover? Or are you really kind of guiding that at some point in the future we can go back and look at a quarterly revenue run rate that's kind of 4x what it was maybe 2 or 3 years ago?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

So at a high level, John, 2018 was really about share gains on traditional 4G. Doesn't really include that 4x content. That 4x content comment relates to, as you move to more radios and massive MIMO, the radios go up by 8x, the content opportunity for us up at 4x, and we're adding Linear power on to that. So that's really in the future. So at a high level, '18 is about 4G share gains, '19 and beyond will be about moving to massive MIMO and the 4x content.

Operator

Your last question comes from C.J. Muse, Evercore.

Christopher James Muse - *Evercore ISI Institutional Equities, Research Division - Senior MD, Head of Global Semiconductor Research & Senior Equity Research Analyst*

I guess to follow-up on a handful of the previous questions. Your industrial business definitely proved more resilient than I think most of us were thinking coming in. And so just curious, how much of that do you think was a result of moving to sell-in versus your particular portfolio?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

I would say, none of that was really due to sell-in. Remember that industrial business largely goes through the channel. We have a very tough compare in the first half because in 2018, we built inventory in the channel, so that is primarily the industrial business. As I mentioned in my prepared remarks, we saw growth in aerospace, defense, electronic test and measurement, which more than helped to offset the headwind we had in automation and memory test, which we've signaled some time ago. The book-to-bill is above parity. So a little bit lower than normal, but that's already reflected in our outlook. I mentioned orders have gotten better. So I think, Vince made the comment, we think we continue to grow from here.

Christopher James Muse - *Evercore ISI Institutional Equities, Research Division - Senior MD, Head of Global Semiconductor Research & Senior Equity Research Analyst*

That's helpful. And I guess, as a quick follow up, I guess, more limited commentary on the consumer side, as I figured. What's the start there? How are you thinking about seasonality? And kind of given what you know today design win was, what that business can look like through calendar '19?

Prashanth Mahendra-Rajah - *Analog Devices, Inc. - Senior VP of Finance & CFO*

Yes, I mean, 2Q is usually the low point of the year for that business, just given the demand there. And if you think about it, on last call, Vince highlighted that we think consumer will be down 10% to 20% in fiscal '19, and that's kind of what we're sticking to for outlook.

Michael C. Lucarelli - *Analog Devices, Inc. - Director of IR*

And thank you, everyone, for joining us this morning. A copy of the transcript will be available on our website, and all available reconciliations and additional information can also be found at the Quarterly Results section of our Investor Relations site at investor.analog.com. Thanks, again, for joining us and your continued interest in Analog Devices.

Operator

This concludes today's Analog Devices conference call. You may now disconnect.
