

Operator

Good day, everyone, and welcome to the Apple Incorporated second quarter fiscal year 2016 earnings release conference call. Today's call is being recorded.

At this time for opening remarks and introductions, I would like to turn the call over to Nancy Paxton, Senior Director of Investor Relations. Please go ahead, ma'am.

Nancy Paxton - Senior Director, Investor Relations and Treasury

Thank you. Good afternoon and thanks to everyone for joining us today. Speaking first is Apple CEO Tim Cook, and he'll be followed by CFO Luca Maestri. After that, we'll open the call to questions from analysts.

Please note that some of the information you'll hear during our discussion today will consist of forward-looking statements, including without limitation those regarding revenue, gross margins, operating expenses, other income and expense, taxes, future business outlook, and plans for capital return and debt issuance. Actual results or trends could differ materially from our forecast. For more information, please refer to the risk factors discussed in Apple's Form 10-K for 2015, the Form 10-Q for the first quarter of fiscal 2016, and the Form 8-K filed with the SEC today along with the associated press release. Apple assumes no obligation to update any forward-looking statements or information, which speak as of their respective dates.

In addition, today's comments will refer to a metric we describe as the purchase value of services tied to our installed base. This is a non-GAAP measure, and a reconciliation to the corresponding GAAP measure can be found on our Investor Relations website at Apple.com/investor.

I'd now like to turn the call over to Tim for introductory remarks.

Timothy Donald Cook - Chief Executive Officer & Director

Thanks, Nancy. Good afternoon, everyone, and thank you for joining us. Today we're reporting the results of a very busy and challenging quarter, and we're also announcing an update to our capital return program.

Revenue for the quarter was \$50.6 billion, which was within our guidance range. Despite the pause in our growth, our results reflect excellent execution by our team in the face of ongoing macroeconomic headwinds in much of the world and difficult year-over-year comparisons. We saw continued currency weakness in the vast majority of our international markets. In constant currency, our revenue declined by 9% from last year,

400 basis points less than the reported decline of 13%. For the first half of the fiscal year, our revenue in constant currency was up 1% year on year.

Despite challenges, there were a number of encouraging signs during the quarter. Our installed base of over 1 billion active devices continued to grow strongly. We added a huge number of Android switchers and new-to-Mac customers, and we generated very strong growth from Services. We sold 51.2 million iPhones in the quarter, consistent with the range of our own expectations but lower than the exceptional year-ago quarter when we saw an acceleration in iPhone upgrades and 40% iPhone sales growth over the previous year.

To provide some additional color, iPhone sales come from three sources: customers who upgrade from previous iPhone models; customers who switch from Android and other operating systems; and customers who purchase a smartphone for the first time.

As we look at each of these three sources of iPhone sales, we see a business that is healthy and strong. First, from an upgrade perspective, during the first half of this year the upgrade rate for the iPhone 6s cycle has been slightly higher than what we experienced in the iPhone 5s cycle two years ago, but it is lower than the accelerated upgrade rate that we saw with iPhone 6, which as you know was a big contributor to our phenomenal revenue growth a year ago. Most importantly, our customers are incredibly loyal. A recent Kantar survey of U.S. smartphone purchasers indicated a 95% iPhone loyalty rate, the highest ever measured for any smartphone.

Second, we continue to see a very high level of customers switching to iPhone from Android and other operating systems. In fact, we added more switchers from Android and other platforms in the first half of this year than any other six-month period ever.

And third, with only 42% smartphone penetration of the global handset market today, iPhone is still attracting millions of first-time smartphone buyers each quarter, especially from emerging markets. For example, in India our iPhone sales were up 56% from a year ago.

Next I'd like to talk about Services, which was our second largest revenue-generating category during the quarter. Setting aside the amount we received from a patent settlement in the December quarter, the March quarter Services revenue was our highest ever. Services revenue jumped 20% to \$6 billion. App Store revenue was up 35% to beat last quarter's all-time record. And Apple Music continues to grow in popularity, with over 13 million paying subscribers today. We feel really great about the early success

of Apple's first subscription business, and our Music revenue has now hit an inflection point after many quarters of decline.

The Services business is powered by our huge installed base of active devices, which crossed 1 billion units earlier this year. As we discussed on this call in January, those 1 billion-plus active devices are a source of recurring revenue that is growing independent of the unit shipments we report every three months. In fact, the purchase value of services tied to our installed base was a record \$9.9 billion in the March quarter, up 27% over last year, accelerating from the 24% growth rate we reported in the December quarter.

The reach of Apple Pay also continues to expand following a very successful launch in China in the March quarter and last week's rollout in Singapore. Apple Pay is growing at a tremendous rate, with more than five times the transaction volume of a year ago and 1 million new users per week. There are more than 10 million contactless-ready locations in the countries where Apple Pay has launched to date, including over 2.5 million locations now accepting Apple Pay in the United States, and more expansion of Apple Pay is coming soon.

Turning to the Mac, we met our sell-in expectations in addition to reducing channel inventory by about 100,000 units. Overall, the Mac continues to attract a large percentage of new customers. In our latest survey of major markets, over half of buyers were new to the Mac. And in some countries, the percentage is extremely high, like in China, where over 80% of customers were purchasing a Mac for the first time. We're confident in our Mac business and our ability to continue to innovate and gain share in that area.

Turning to the Apple Watch, unit sales met our expectations in the quarter. For some color on how we think about Apple Watch sales, we expect its seasonality to be similar to the historical seasonality of iPod, which typically generated 40% or more of its annual unit sell-through in the December quarter. We started shipping Apple Watch just one year ago, and it has quickly become the best-selling and most loved smartwatch in the world. In fact, unit sales of Apple Watch during its first year exceeded sales of iPhone in its first year.

Last month, we refreshed the lineup for the spring with new bands and a new starting price point, and the response from customers has been great. Apple Watch is an increasingly essential part of users' lives, from responding to messages, managing calendars and navigating with maps, to helping them be more fit. And in some cases, the heart rate sensor has even helped

save lives. We're really excited about the first year with Apple Watch. We have learned a lot, and we believe it has an exciting future ahead.

We announced some fantastic new products during the March quarter. iPhone SE became available on March 31, so none of its sales were reflected in our second quarter results. But so far this quarter we're seeing terrific customer response. iPhone SE is the most powerful four-inch phone ever, and it's a great option for customers all over the world who want a compact phone with advanced features and a great price without compromising performance. Demand has been very strong and exceeds supply at this point, but we're working hard to get the iPhone SE into the hands of every customer who wants one as quickly as possible. The addition of the iPhone SE in the iPhone lineup places us in a better strategic position to attract even more customers into our ecosystem.

We also unveiled the stunning 9.7-inch iPad Pro with cutting-edge performance and our most advanced display yet. The reviews of our new iPad Pros have been great, and we're hearing from customers that the features and capabilities in the new Pros make them both the ultimate upgrade for iPad owners and a great PC replacement. In the June quarter, we expect to see our best iPad revenue compare in over two years. iPad is the best selling, best reviewed, and most used tablet on the market. Customers tell us that they love iPad for its unique mix of portability, capability, and versatility, with over 1 million iPad apps in the App Store to help them work, play, learn, and create.

We also announced CareKit, a new software framework that developers can use to help people take a more active role in their health by keeping track of their care plans, monitoring their symptoms and medication, and delivering the insights they need to make smart decisions about their health. We're very excited about the ways iPhone and Apple Watch are helping people lead healthier lives. We believe there's great promise here for the future, and we are very interested in where this can take us.

As always, we're contributing to society beyond our products, promoting the use of renewable energy across our facilities and inside our supply chain and developing cutting-edge technologies to revolutionize recycling of the materials we use. We are unwavering in our commitment to protect the security and privacy of our customers and their data, and we're actively promoting inclusion and equality across our business.

As we continue through the June quarter, I'd like to remind you that we measure the health of customer demand based on sell-through. Despite ending Q2 within our channel inventory targets, in light of the macroeconomic environment, we plan to lower our channel inventories in the

June quarter. This will impact our reported revenue in Q3. Luca will provide more details on this in his commentary.

But before I turn over the call to him, I'll summarize by saying that the future of Apple is very bright. Our product pipeline has amazing innovations in store. We're very excited about bringing together developers for our four major platforms at our Worldwide Developers Conference in June. We are forging ahead with important investments in research and development, in our infrastructure, and in our supply chain. We've made 15 acquisitions in the last four quarters to accelerate our product and Services roadmaps, and we're always on the lookout for companies with great technology, talent, and strategic fit.

Creating value for shareholders by developing great products and services that enrich people's lives will always be our top priority and the key factor driving our investment and capital allocation decisions. As our business continues to generate high levels of free cash flow, we are in the fortunate position to expand our capital return program again this year, as we have done each year since we started the program four years ago. Today we're announcing an extension of the timeframe of the program by four quarters through March of 2018, and we are expanding the total program size from \$200 billion to \$250 billion.

Luca has more details on this announcement and our results for the March quarter. Luca?

Luca Maestri - Chief Financial Officer & Senior Vice President

Thank you, Tim, and good afternoon, everyone. Let me start with the March quarter results.

Revenue for the quarter landed within our guidance range of \$50.6 billion compared to \$58 billion in the year-ago quarter, a decline of 13%. As we had expected, our comparisons to last year were influenced by the continued strength of the U.S. dollar against foreign currencies. As Tim said, in constant currency, our revenue declined by 9%.

On a geographic basis, in Asia, our revenue grew strongly in Japan, but it declined in greater China and the rest of Asia-Pacific. However, our business in these two regions is faring better than the numbers might suggest. We had significant channel inventory reductions and currency weakness, which affected our reported revenue for both these segments.

In Mainland China, revenue was down 11%, and the decline was 7% in constant currency terms. Keep in mind that we were up against an extremely difficult year-ago compare when our Mainland China revenue grew

81%. We remain very optimistic about the China market over the long term, and we are committed to investing there for the long run.

Gross margin was 39.4%, near the high end of our guidance range, thanks to strong cost performance. Operating margin was 27.7% of revenue, and net income was \$10.5 billion. Diluted earnings per share were \$1.90, and cash flow from operations was strong at \$11.6 billion.

For details by product, I'll start with iPhone. We sold 51.2 million iPhones in the quarter compared to 61.2 million in the year-ago quarter, a decline of 16%. It was a particularly challenging comparison to the record quarter a year ago, when iPhone sales grew 40%, as we entered last March quarter in supply/demand imbalance, which was recovered during the quarter. Also, this year we reduced channel inventory by 450,000 units while we increased inventory by 1 million units a year ago. We have exited the quarter within our five-week to seven-week target range for channel inventory.

iPhone ASP was \$642 compared to \$659 in the year-ago quarter, with weak international currencies and very popular mid-tier and entry offerings contributing to the difference year over year.

iPhone's momentum in business markets continues to be very impressive. A recent survey by 451 Research, formerly known as ChangeWave, found that among U.S. corporate buyers planning to purchase smartphones in the June quarter, 78% plan to purchase iPhones. That's the highest June quarter iPhone purchase intent ever measured by the survey and five points higher than a year ago.

Turning to Services, we generated \$6 billion in revenue, an increase of 20% over the March quarter last year, thanks primarily to the continued strong performance of the App Store, with revenue growing 35% to a new all-time high. According to App Annie, the App Store generated 90% more global revenue than Google Play in the March quarter, up from a 75% lead in 2015. Among our customers who purchased apps and content from our iTunes Store's, the average amount spent per customer reached a new all-time record in the March quarter.

Next, I'd like to talk about the Mac. We sold 4 million Macs compared to 4.6 million last year, a decline of 12%. It was a challenging quarter for personal computer sales across the industry, but we believe we gained market share. Despite the overall market slowdown, we generated double-digit Mac growth in a number of markets, including Russia, Korea, Singapore, Taiwan, and the UAE.

And just last week we updated the MacBook, our thinnest and lightest Mac, with the latest processors, faster graphics, faster flash storage, and longer

battery life. We think our customers are going to love this update. We ended the quarter within our four-week to five-week target range for Mac channel inventory.

Turning to iPad, we sold 10.3 million units compared to 12.6 million units in the year-ago quarter. We also reduced channel inventory by about 200,000 units, and we exited the quarter within our five-week to seven-week target range.

In the segments of the tablet market where we compete, we continue to be highly successful. Recent data from NPD indicates that iPad has 78% share of the U.S. market for tablets priced above \$200. And the latest data published by IDC indicates that iPad accounts for 72% of the U.S. commercial tablet market, comprising business, government, and education.

iPad customer metrics are also extremely positive. In February, 451 Research measured a 97% consumer satisfaction rate for iPad Air 2. And among consumers planning to purchase a tablet within the next six months, 59% plan to purchase an iPad, more than three times the purchase intention rate of the next highest brand measured. Corporate buyers reported a 94% satisfaction rate for iPad, and the June quarter purchase intent of 71%.

Revenue from other products grew 30% over last year thanks to Apple Watch. We have expanded distribution to 60 countries and introduced bands in beautiful new colors for spring, so customers can personalize their watches in more ways with a range of colors, styles, and materials. Our customers are very happy with Apple Watch, with 451 Research measuring 94% customer satisfaction.

We're also making great progress with our enterprise initiatives. IBM now has engagements for more than 200 deployments of native iOS apps for large enterprise customers to accelerate mobile transformation. Our Mobility Partner program also continues to grow, with 108 partners across 20 countries.

We see continued broad industry adoption of native iOS apps to transform how professionals do their work and serve their customers. For example, retail bankers are using iOS apps on iPads to greet and onboard customers, reduce queue times, and improve the customer experience. And in hospitals, doctors and nurses are using iOS apps on iPhone and iPad to share and communicate more effectively so that they can spend more time with patients and less time on administrative tasks.

Let me now turn to our cash position. We ended the quarter with \$232.9 billion in cash plus marketable securities, a sequential increase of \$17.2 billion. \$208.9 billion of this cash, or 90% of the total, was outside the

United States. We issued \$15.5 billion in U.S. dollar denominated notes during the quarter, including our first green bond tranche to fund initiatives such as renewable energy and environmental design projects. We exited the March quarter with \$72 billion in term debt.

We returned \$10 billion to investors during the quarter, including \$2.9 billion in dividends and equivalents and \$7 billion on repurchases of 71.8 million Apple shares through open market transactions. We have now completed over \$163 billion of the current \$200 billion capital return program, including \$117 billion in share repurchases.

As Tim mentioned, today we are announcing the latest update to our program, which we are increasing to a total of \$250 billion. Once again, we're allocating the majority of the expansion of the program to share repurchases. Given our strong confidence in Apple's future and the value we see in our stock, the board has increased the share repurchase authorization by \$35 billion, raising it from the current \$140 billion level to \$175 billion. We will also continue to net share settle vesting employee restricted stock units.

We also know that the dividend is very important to many of our investors who value income, and we are raising it for the fourth time in less than four years. The quarterly dividend will grow from \$0.52 per share to \$0.57 per share, an increase of about 10%. This is effective with our next dividend, which the board has declared today and is payable on May 12, 2016 to shareholders of record as of May 9, 2016. We continue to plan for annual dividend increases going forward. With \$12 billion in annual dividend payments, we are proud to be one of the largest dividend payers in the world. In total, with this updated program, during the next eight quarters we expect to return \$87 billion to our investors, which represents about 15% of our market cap at the current stock price.

As in the past, we expect to fund our capital return program with U.S. cash, future U.S. cash flow generation, and borrowing from both domestic and international debt markets. We will continue to review capital allocation regularly and solicit input on our program from a broad base of shareholders. This allows us to be thoughtful about the size, the mix, and the pace of the program.

As we move ahead into the June quarter, I'd like to review our outlook, which includes the types of forward-looking information that Nancy referred to at the beginning of the call. We expect revenue to be between \$41 billion and \$43 billion. The revenue guidance implies a year-over-year decline as we lap an incredibly strong June quarter last year where revenue grew 33%, due in part to accelerated iPhone upgrade purchases. This tough compare is

compounded by the continued weak macro environment this year and the strong U.S. dollar, which affects our revenue growth in international markets.

Embedded in this guidance is a planned channel inventory reduction worth over \$2 billion, as we have elected to be prudent about our channel inventory position given the current macro environment. The guidance also reflects a range of possible scenarios related to how quickly we can get into supply/demand balance for iPhone SE. Due to these factors, our expected demand is greater than the revenue range implies.

Sequentially, our guidance implies a revenue decline of 15% to 19%, which is comparable to the 17% sequential decline that we've averaged from the March to June quarter for the last three years, despite the anticipated channel inventory adjustments I just described. We expect seasonal sequential declines in iPhone and iPad sales and a sequential increase in Mac sales. We also expect iPhone ASPs to decline sequentially as we get farther from the launch of iPhone 6s and iPhone 6s Plus and as iPhone SE enters the mix.

We know that our revenue guidance falls short of market estimates for the third quarter. We believe the difference comes primarily from three areas: first, the \$2 billion-plus channel inventory reduction I just mentioned; second, the effect of the channel inventory reduction and the launch of iPhone SE on iPhone ASPs, as well as the current constrained supply of iPhone SE; and third, different estimates for Mac, which we expect to grow sequentially at a rate similar to what we have experienced in the past June quarters.

We expect gross margins to be between 37.5% and 38%. We expect continued cost improvements to be more than offset by the sequential loss of leverage from lower revenue and a different mix of products. We expect OpEx to be between \$6 billion and \$6.1 billion. We expect OI&E to be about \$300 million, and we expect the tax rate to be about 25.5%.

With that, I'd like to open the call to questions.

Nancy Paxton - Senior Director, Investor Relations and Treasury

Thank you, Luca. And we ask that you limit yourself to one one-part question and one follow-up. Operator, may we have the first question, please?

Question-and-Answer Session

Operator

First we'll hear with Simona Jankowski with Goldman Sachs.

Simona K. Jankowski - Goldman Sachs & Co.

Hi, thank you so much. My first question was actually just a clarification in terms of putting in context that \$2 billion in channel inventory reduction. What was that last year, just to help us make the comparison on a year-over-year basis?

And then the bigger question, Tim, was with the smartphone market now reaching a pretty mature growth phase, how does Apple think of itself going forward? Is it as a growth company, or is it a more mature tech company? And if it's still the former, how does that change how you think about M&A, especially given the position you're in with your balance sheet strategically?

Luca Maestri - Chief Financial Officer & Senior Vice President

Simona, let me give you the data points on the sell-through, and then I'll let Tim answer the strategic question. We had a channel inventory reduction that was worth a bit less than \$800 million a year ago.

Timothy Donald Cook - Chief Executive Officer & Director

Simona, hi, it's Tim. In terms of do I think the smartphone market

is mature, I think that the market, as you know, is currently not growing. However, my view of that is that's an overhang of the macroeconomic environment in many different places in the world. And we're very optimistic that this too shall pass and that the market and particularly us will grow again.

The reason that we're optimistic is we look at the three places that iPhone sales come from. And from an upgrade point of view as I mentioned in my comments, we compare favorably, slightly better than the upgrade cycle that we saw on the iPhone 5s. We're lower than the iPhone 6, but I think all of us know that that was an extraordinary cycle that accelerated upgrades from 2016 into 2015. And so that comparable will be tough for this year, but that's a transitory thing.

As we look at switchers, we're extremely excited that for the first half we set a record from switchers from other platforms, the largest we've ever seen in any six-month period before, so we've got traction there. And then on emerging markets, if you take a look at India, we grew by 56%, and we're placing increasing emphasis in these areas, where it's clear there will be disproportionate growth versus the more developed areas.

The next thing is with the iPhone SE, we have seen our ability to attract even more customers into the platform with an incredible product that is at a new price point for us with the latest technology, and so we're optimistic about attracting even more customers with that. We also look at our pipeline, and we're very excited about what's in our pipeline. And so all of those things make me optimistic.

Your other question was on M&A. Regardless of the first, we're always looking in the market about things that could complement things that we do today, become features in something we do, or allow us to accelerate entry into a category that we're excited about. And so as I said before, our test is not on the size. We would definitely buy something larger than we've bought thus far. It's more about the strategic fit and whether it's a great technology and great people. And so we continue to look and we stay very active in the M&A market.

Simona K. Jankowski - Goldman Sachs & Co.

Thank you.

Nancy Paxton - Senior Director, Investor Relations and Treasury

Thank you, Simona. Can we have the next question, please?

Operator

From Piper Jaffray, we'll hear from Gene Munster.

Eugene Charles Munster - Piper Jaffray & Co (Broker)

Good afternoon. Tim, could you talk a little bit about the iPhone ASP trends? And specifically, you mentioned that the iPhone SE is going to impact it. But how are you thinking about the aspirational market share that's out there and your actual market share and using price to close that gap? Is it just the iPhone SE, or could there be other iPhone models that will be discounted to try to be more aggressive in emerging markets?

And one for Luca, can you talk a little bit about the Services segment in terms of what piece of the services is driving growth, and maybe a little bit about the profitability on a net basis versus a gross basis that you've referred to in the past? Thanks.

Timothy Donald Cook - Chief Executive Officer & Director

Gene, I think the iPhone SE is attracting two types of customers. One is customers that wanted the latest technology but wanted it in a more compact package, and we clearly see even more people than we thought in

that category. And then secondly, it's attracting people who aspire to own an iPhone but couldn't quite stretch to the entry price of the iPhone, and we've established a new entry. And so I think both of these markets are very, very important to us, and we're really excited about where it can take us. I do think that we will be really happy with the new-to-iPhone customers that we see from here because of the early returns we've had. We are currently supply constrained, but we'll be able to work our way out of this at some point. But it's great to see the overwhelming demand for it. I'll let Luca comment on the ASPs.

Luca Maestri - Chief Financial Officer & Senior Vice President

So on the ASPs, Gene, we mentioned that we're going to be down sequentially. And this is really the combination of two factors when we go from the March quarter to the June quarter. It's the fact that we are having the iPhone SE entering the mix, and that obviously is going to have a downward pressure on ASP. And also this channel inventory reduction that we've talked about, obviously the channel inventory reduction will come from higher-end models, and that is also affecting the sequential trend on ASPs.

The question on Services, when we look at our Services business, it's obviously growing very well across the board. The biggest element and the part of the Services business that is growing very well, we mentioned 35%, is the App Store. It's interesting for us that our Music business, which had been declining for a number of quarters, now that we have both a download model and a streaming model, we have now hit an inflection point. And we really believe that this will be the bottom and we can start growing from there over time. We have many other Services businesses that are doing very well. We have an iCloud business that is growing very quickly, faster than the App Store from a much lower base, but I think it's important for us as we continue to develop these businesses.

Tim has talked about Apple Pay. It doesn't provide a meaningful financial contribution at this point, but as we look at the amount of transactions that are going through Apple Pay right now and we think ahead for the long term, that could be an interesting business for us as well.

From a profitability standpoint, we had mentioned last time that when you look at it on a gross basis, so in terms of purchase value of these services, the profitability of the business is similar to company average. Of course, when you net out the amount that is paid to developers and you look at it in terms of what is reported in our P&L, obviously that business has a profitability that is higher than company average. We don't get into the

specifics of specific products or services, but it's very clear it's significantly higher than company average.

Eugene Charles Munster - Piper Jaffray & Co (Broker)

Thank you.

Nancy Paxton - Senior Director, Investor Relations and Treasury

Thanks, Gene. Can we have the next question, please?

Operator

Katy Huberty with Morgan Stanley.

Kathryn Lynn Huberty - Morgan Stanley & Co. LLC

Yes, thank you. First for Luca, this is the worst gross margin guide in a year and a half or so. And over the last couple of quarters, you've talked about a number of tailwinds, including component cost, the lower accounting deferrals that went into effect in September. You just mentioned the Services margins are above corporate average. So the question is, are some of those tailwinds winding down, or is the significant guide down in gross margins for the June quarter entirely related to volume and the iPhone 5 SE? And then I have a follow-up for Tim.

Luca Maestri - Chief Financial Officer & Senior Vice President

Katy, clearly the commodity environment remains quite favorable, and we continue to expect cost improvements. The other dynamics that you've mentioned are still there. Obviously, what is different and particularly as we look at it on a sequential basis coming out of the March quarter, we will have lots of leverage, and that obviously is going to have a negative impact on margins.

And the other factor that's important to keep in mind is this different mix of products. And particularly when you look at iPhone, what I was mentioning to Gene earlier, I think we've got a couple of things that are affecting not only ASPs, but obviously they also affect margins. And it's the fact that we had a channel inventory reduction at the top end of the range, and we've got the introduction of the iPhone SE at the entry level of the range. And so when you take into account those factors, those are the big elements that drive our guidance range right now.

Kathryn Lynn Huberty - Morgan Stanley & Co. LLC

Okay, thank you, and then a question for Tim. I appreciate the optimism around longer-term iPhone unit growth, but with developed market penetration in the – anywhere from 60% to 80%, the growth is going to have to come from new markets. You've talked about India. Can you just spend a little bit more time on that market? What are some of the hurdles you have to overcome for that to be a larger part of the business? When should we expect Apple to have more distribution and specifically your own stores in that country? Thanks.

Timothy Donald Cook - Chief Executive Officer & Director

Katy, in the short term, let me just make a couple of comments on the developed markets just to make sure this is clear. If you look at our installed base of iPhone today versus two years ago, it's increased by 80%. And so when you think about upgrade cycles, upgrade cycles would have varying rates on it. As I talked about it in the comments, the iPhone 6s upgrade rate is slightly higher than the iPhone 5s but lower than the iPhone 6. But the other multiplier in that equation is obviously the size of the installed base. And so the nut of the idea is that I think there's still really, really good business in the developed markets, so I wouldn't want to write those off. And it's our jobs to come up with great products that people desire, and also to continue to attract over Android switchers. With our worldwide share, there's still quite a bit of room in the developed markets as well.

And from an India point of view, if you look at India, and each country has a different story a bit, but the things that have held not only us back perhaps but some others as well is that the LTE rollout with India just really began this year, and so we'll begin to see some really good networks coming on in India. That will unleash the power and capability of the iPhone in a way that an older network, a 2.5G or even some 3G networks, would not do. And so the infrastructure is one key. The second one is building the channel out. Unlike the U.S., as an example, where the carriers in the U.S. sell the vast majority of phones that are sold in the United States, in India the carriers in general sell virtually no phones. And so it's out in retail, and retail is many, many different small shops.

And so we've been in the process – it's not something that we just started in the last few weeks. We've been working in India now for a couple of years or more, but we've been working with great energy over the last 18 months or so, and I'm encouraged by the results that we're beginning to see there, and believe there's a lot, lot more there. It is already the third largest smartphone market in the world. But because the smartphones that are working there are low end, primarily because of the network and the economics, the market potential has not been as great there. But I view

India as where China was maybe seven to ten years ago from that point of view, and I think there's a really great opportunity there.

Nancy Paxton - Senior Director, Investor Relations and Treasury

Thank you, Katy. Can we have the next question, please?

Operator

We'll go to Toni Sacconaghi with Bernstein.

A.M. Sacconaghi, Jr. - Sanford C. Bernstein & Co. LLC

Yes, thank you. I have one and then a follow-up as well. My sense is that you talked about adjusting for the changes in channel inventory, that you're guiding for relatively normal sequential growth. And I think if you do the math, it's probably the same or perhaps a touch worse in terms of iPhone unit growth sequentially relative to normal seasonality between fiscal Q2 and Q3. I guess the question is, given that you should be entering new markets and you should see pronounced elasticity from the iPhone SE device, why wouldn't we be seeing something that was dramatically above normal seasonal in terms of iPhone revenues and units for this quarter?

Maybe you could push back on me, but I can't help thinking that when Apple introduced the iPad mini in a similar move to move down-market, there was great growth for one quarter, and the iPad never grew again, and margins and ASPs went down. And it looks like you're introducing the SE, and at least on a sequential basis, you're not calling for any uplift even adjusting for channel inventory. And ASPs I presume will go down and certainly it's impacting gross margins, as you've guided to. So could you respond to, A), why you're not seeing the elasticity? And, B), is the analogy with the iPad mini completely misplaced?

Timothy Donald Cook - Chief Executive Officer & Director

Toni, it's Tim. Let me see if I can address your question. The channel inventory reduction that Luca referred to, the vast, vast majority of that is in iPhone, and so that would affect the unit compare that you may be thinking about. The iPhone SE, we are thrilled with the response that we've seen on it. It is clear that there is a demand there even much beyond what we thought. And so that is really why we have the constraint that we have.

And so do I think it will be like the iPad mini? No, I don't think so. I don't see that. I think that the tablet market in general, one of the challenges with the tablet market is that the replacement cycle is materially different than in the smartphone market. And so as you probably know, we haven't had an issue

in customer satisfaction on the iPad. It's incredibly high. And we haven't had an issue with usage of the iPad. The usage is incredibly high. But the consumer behavior there is you tend to hold on for a very long period of time before an upgrade.

We continue to be very optimistic on the iPad business. And as I had said in my remarks, we believe we're going to have the best compare for iPad revenue this quarter that we have had in quite some time. And so we'll report back in July on that one. But I think iPhone has a particularly different kind of cycle to it than the tablet market.

A.M. Sacconaghi, Jr. - Sanford C. Bernstein & Co. LLC

Okay. And if I can follow up, Tim, you alluded to replacement cycles and differences between the iPad and the iPhone. My sense was when you were going through the iPhone 6 cycle was that you had commented that the upgrade cycle was not materially different. I think your characterization was that it accelerated a bit in the U.S. but international had grown to be a bigger part of your business, and replacement cycles there were typically a little bit longer. And so I'm wondering. If there was only a modest difference between the iPhone 5s and the iPhone 6, how big a difference are we really seeing in terms of replacement cycles across the last three generations? And maybe you can help us. If the replacement cycle was flat this year relative to what you saw last year, how different would your results have been this quarter and the first half?

Timothy Donald Cook - Chief Executive Officer & Director

There's a lot there. Let me just say I don't recall saying the things that you said I said about the upgrade cycle. Let me get that out of the way. Now let me describe without the specific numbers. The iPhone 6s upgrade cycle that we've measured for the first half of this year, so the first six months of our fiscal year to be precise, is slightly better than the rate that we saw with the iPhone 5s two years ago, but it's lower than the iPhone 6. I don't mean just a hair lower. It's a lot lower. And so without giving you exact numbers, if we would have the same rate on iPhone 6s that we did iPhone 6, it would be time for a huge party. It would be a huge difference.

Now the good news is – the great news from my point of view is I think we're strategically positioned very well because we've announced the iPhone SE. We are attracting customers that we previously didn't attract. That's really great. And this tough compare eventually isn't the benchmark. And the installed base is up 80% over the last two years. And so all of those I think bode well. And the switcher comments I made earlier, I wouldn't

underestimate that because that's very important for us in every geography. So thanks for the question.

A.M. Sacconaghi, Jr. - Sanford C. Bernstein & Co. LLC

Thank you.

Nancy Paxton - Senior Director, Investor Relations and Treasury

Thanks, Toni. Can we have the next question, please?

Operator

From Cross Research Group, we'll hear from Shannon Cross.

Shannon S. Cross - Cross Research LLC

Thank you very much. I have a couple questions. One, Tim, can you talk a bit about what's going on in China? I know the Greater China revenue I think was down 26%. You did talk about Mainland China. But just if you could, talk about some of the trends you're seeing there and how you think it's playing out, and maybe your thoughts on iPhone SE adoption within China as well.

Timothy Donald Cook - Chief Executive Officer & Director

Shannon, thanks for the question. If you take Greater China, we include Taiwan, Hong Kong, and Mainland China in the Greater China segment that you see reported on your data sheet. The vast majority of the weakness in the Greater China region sits in Hong Kong. And our perspective on that is it's a combination of the Hong Kong dollar being pegged to the U.S. dollar, and therefore it carries the burden of the strength of the U.S. dollar. And that has driven tourism, international shopping, and trading down significantly compared to what it was in the year ago.

If you look at Mainland China, which is one that I am personally very focused on, we are down 11% in Mainland China on a reported basis. On a constant currency basis, we're only down 7%. And the way that we really look at the health or underlying demand is look at sell-through. And if you look at it there, we were down 5%. And keep in mind that that's down 5% on a comp a year ago that was up 81%.

And so as I back up from this and look at the larger picture, I think China is not weak as has been talked about. I see China as may not have the wind at our backs that we once did, but it's a lot more stable than what I think is the common view of it. And so we remain really optimistic on China. We opened seven stores there during the quarter. We now are at 35. We'll open five more this quarter to achieve 40, which we had talked about before. And the

LTE adoption continues to rise there, but it's got a long way ahead of it. And so we continue to be really optimistic about it and just would ask folks to look underneath the numbers at the details of them before concluding anything. Thanks for the question.

Shannon S. Cross - Cross Research LLC

Okay, thanks. And then my second question is with regard to OpEx leverage or thinking about when I look at the revenue, your revenue is below our expectations, but OpEx is pretty much in line. So how are you thinking about potential for leverage, I don't know, cost containment maybe when macro is bad and revenue is under pressure? And how are you juggling that versus the required investment you need to go forward?

Luca Maestri - Chief Financial Officer & Senior Vice President

Shannon, it's Luca. Of course we think about it. We think about it a lot. And so when you look at our results, for example, our OpEx for the quarter, for the March quarter was up 10%, which is the lowest rate that you've seen in years. And when you look within OpEx, you actually see two different dynamics. You see continued significant investments in research and development because we really believe that's the future of the company. We continue to invest in initiatives and projects ahead of revenue. We have a much broader portfolio than we used to have. We do much more in-house technology development than we used to do a few years ago, which we think is a great investment for us to make. And so that part we really need to protect and we want to continue to invest in the business.

And then when you look at our SG&A portion of OpEx for the March quarter, it was actually down slightly. So obviously, we think about it, and of course we look at our revenue trend and we take measures accordingly. And when you look at the guidance that we provided for the June quarter, that 10% year-over-year increase that I mentioned to you for the March quarter goes down to a range of 7% to 9% up. And again, the focus is on making investments in R&D and continuing to run SG&A extremely tightly and in a very disciplined way. As you know, our E-to-R, expense-to-revenue ratio, is around 10%. It's something that we're very proud of. It's a number that is incredibly competitive in our industry, and we want to continue to keep it that way. At the same time, we don't want to underinvest in the business.

Shannon S. Cross - Cross Research LLC

Thank you.

Nancy Paxton - Senior Director, Investor Relations and Treasury

Than you, Shannon. Could we have the next question, please?

Operator

From UBS, we'll hear from Steve Milunovich.

Steven M. Milunovich - UBS Securities LLC

Thank you. Tim, I first wanted to ask you about Services, and how do you view Services? You've obviously highlighted it the last two quarters. Do you view it going forward as a primary driver of earnings, or do you view it – you mentioned platforms in terms of your operating systems, which I would agree with. And in that scenario, I would argue it's more a supporter of the ecosystem and a supporter of the hardware margins over time and therefore somewhat subservient to hardware. So it's great that it's growing, but longer term, I would view its role as more creating ecosystem that supports the high margins on hardware as opposed to independently driving earnings. How do you think about it?

Timothy Donald Cook - Chief Executive Officer & Director

The most important thing for us, Steve, is that we want to have a great customer experience. So overwhelmingly, the thing that drives us are to embark on services that help that and become a part of the ecosystem. The reality is that in doing so, we have developed a very large and profitable business in the Services area. And so we felt last quarter and working up to that that we should pull back the curtain so that people could – our investors could see the Services business both in terms of the scale of it and the growth of it. As we said earlier, the purchase value of the installed base services grew by 27% during the quarter, which was an acceleration over the previous quarter. And the value of it hit just – or was just shy of \$10 billion. And so it's huge, and we felt it was important to spell that out.

Steven M. Milunovich - UBS Securities LLC

Okay. And then going back to the upgrades of the installed base, you clearly mentioned that you've pulled forward some demand, which makes sense. But there does seem to be a lengthening of the upgrade cycle, particularly in the U.S. AT&T and Verizon have talked about that. Investors I think perceive that maybe the marginal improvements on the phone might be less currently and could be less going forward. At the same time, I think you just announced that you can get the upgrade program online, which I guess potentially could shorten it. Do you believe that upgrade cycles are currently lengthening and can continue to do so?

Timothy Donald Cook - Chief Executive Officer & Director

What we've seen is that it depends on what you compare it to. If you compare to the iPhone 5s, what we're seeing is the upgrade rate today is slightly higher or that there are more people upgrading, if you will, in a similar time period in terms of rate than the iPhone 5s. But if you compare to iPhone 6, you would clearly arrive at the opposite conclusion. And so I think it depends on people's reference points. And we thought it very important in this call to be very clear and transparent about what we are seeing. And so I think in retrospect, you can look at it and say, well maybe the appropriate measure is more to the iPhone 5s, and I think everybody intuitively thought that the upgrades were accelerated with the iPhone 6. In retrospect, when you look at the periods, they clearly were.

Steven M. Milunovich - UBS Securities LLC

Thank you.

Nancy Paxton - Senior Director, Investor Relations and Treasury

Thanks, Steve. Can we have the next question, please?

Operator

We'll go to Rod Hall with JPMorgan.

Rod B. Hall - JPMorgan Securities LLC

Thanks, guys, for fitting me in. I wanted to start with a more general question. I guess. Tim, this one is aimed at you. As you think about where you thought things were going to head last quarter when you reported to us and how it's changed this quarter, obviously this kind of a disappointing demand environment. Can you just help us understand what maybe the top two or three things are that have changed, so as we walk away from this we understand what the differences are and what the direction of change is? And I've got a follow up.

Timothy Donald Cook - Chief Executive Officer & Director

I think, Rod, you're probably indirectly asking about our trough comment, if you will, from last quarter. And when we made that, we did not contemplate or comprehend that we were going to make a \$2 billion-plus reduction in channel inventory during this quarter. And so if you factor that in and look at true customer demand, which is the way that we look at it internally, I think you'll find a much more reasonable comparison.

Rod B. Hall - JPMorgan Securities LLC

Okay, great. Thank you. And then for my follow-up, I wanted to ask you about the tax situation a little bit. Treasury obviously has made some rule changes, and I wonder maybe if, Luca, you could comment on what the impact to Apple from those is, if anything; and, Tim, maybe more broadly, how you guys see the tax situation for Apple looking forward? Thanks.

Luca Maestri - Chief Financial Officer & Senior Vice President

Yes. Rod, these are new regulations. We are in the process of assessing them. Frankly, from first read, we don't anticipate that they're going to have any material impact on our tax situation. Some of them relate to inversion transactions, so obviously that's not an issue for us. Some of them are around internal debt financing, which is not something that we use, so we don't expect any issue there. As you know, we are the largest U.S. taxpayer by a wide margin, and we already pay full U.S. tax on all the profits from the sales that we make in the United States. So we don't expect them to have any impact on us.

On tax reform, maybe I can continue, and I'll let Tim provide more color, but we've been strong advocates for comprehensive corporate tax reform in this country. We continue to do that. We think a reform of the tax code would have significant benefits for the entire U.S. economy, and we remain optimistic that we're going to get to a point where we can see that tax reform enacted. At that point in time, of course, we would have much more flexibility around optimizing our capital structure and around providing more return of capital to our investors.

Timothy Donald Cook - Chief Executive Officer & Director

The only thing I would add, Rod, is I think there are a growing number of people in both parties that would like to see comprehensive reform, and so I'm optimistic that it will occur. It's just a matter of when. And that's difficult to say, but I think most people do recognize that it's in the U.S.'s interest to do this.

Rod B. Hall - JPMorgan Securities LLC

Great. Thanks, guys.