

Operator

Thank you for standing by. Good day, everyone, and welcome to The Boeing Company's First Quarter 2020 Earnings Conference Call. Today's call is being recorded. The management discussion and slide presentation, plus the analyst question-and-answer session, are being broadcast live over the Internet. [Operator Instructions].

At this time, for opening remarks and introductions, I am turning the call over to Ms. Maurita Sutedja, Vice President of Investor Relations for The Boeing Company. Ms. Sutedja, please go ahead.

Maurita Sutedja

Thank you, John, and good morning. Welcome to Boeing's first quarter 2020 earnings call. I'm Maurita Sutedja, and with me today are David Calhoun, Boeing's President and Chief Executive Officer; and Greg Smith, Boeing's Executive Vice President Enterprise Operation and Chief Financial Officer. After management comments, we will conduct a question-and-answer session. In fairness to others on the call, we ask that you please limit yourself to one question.

As always, we have provided detailed financial information in our press release issued earlier today. And as a reminder, you can follow today's broadcast and slide presentation through our website at boeing.com.

Before we begin, I need to remind you that any projections, estimates and goals we include in our discussion this morning are likely to involve risks, which are detailed in our news release and our various SEC filings and in the forward-looking statement disclaimer at the end of this web presentation. In addition, we refer you to our earnings release and presentation for disclosures and reconciliation of certain non-GAAP measures.

Now, I will turn over the call to Dave Calhoun.

David Calhoun

Thank you, Maurita, and good morning, everyone. I want to start by saying I hope you're all staying safe and healthy during this global crisis. I also want to thank my Boeing colleagues around the globe for everything they are doing to support each other, our business, and our customers during these intensely challenging times.

On behalf of Boeing, I'd like to recognize all of the public servants out there from federal, state, and local authorities to frontline healthcare professionals

and first responders for the difficult decisions and the personal risks they are making to protect and care for all of us.

Let's turn to the second slide please. The COVID-19 pandemic is a global crisis like no other. This hits home for us personally and professionally. Across Boeing, we're focused on keeping our people and our communities safe. We're battling to stop the virus by taking every measure possible including early implementation of virtual work, deep cleaning our work areas, adjusting work patterns, adding visual indicators to increase social distancing and temperature screening stations with no touch thermal scanners, providing access to medical information around the clock, quarantining anyone potentially exposed to the virus, suspending operations where necessary and more.

We have doubled our paid leave policy for those who cannot work remotely when their sites are suspended. At sites where we've had to temporarily suspend operations, we've worked closely with our customers to ensure we maintain critical support for them. And before bringing our teams back to work, we've implemented objectives and rigorous steps aligned with federal and state guidance to ensure safe and orderly restart of operations. Earlier this week, we announced that we will resume operations at our Boeing South Carolina site beginning on May 3. This move brings back our final production site that was temporarily suspended as a result of COVID-19.

We're also doing everything we can to support our global supply chain health. A number of our suppliers have suspended or reduced their operations resulting in some supply shortages for our own operations. In some cases, this contributed to our site suspension decisions. We've taken mitigating actions where we can, but supply disruption remains a key watch item for us. At the other end of our value chain, we continue to support our commercial airplanes and services customers as their own business slows to a trickle. We've also focused on meeting the commitments to our defense and space customers.

Given the swift and severe nature of this COVID-19 shock, to preserve the long-term competitiveness of our company as well as our industry, we are intensely focused on ensuring liquidity through the immediate crisis. We welcome that some 26 countries, including the United States, have announced economic support packages worth more than \$100 billion specifically targeting the aerospace and airline sectors. The aerospace industry relies on a global shared supply chain, and the aviation sector supports 3.6% of the global GDP, generating more than 65 million jobs worldwide. In the U.S., we applaud the administration and Congress for working together to pass the CARES Act, which will be critical to supporting

the nation's entire aerospace manufacturing sector, which comprises 2.5 million jobs and 17,000 suppliers.

We expect that programs coming out of the bill and funding options the government is putting in place will provide support to help the credit markets function again, providing the liquidity that is vital to our industry's ability to bridge recovery. The \$25 billion support package agreed to by the U.S. airlines and the government is a pivotal step toward maintaining the aviation pillar of the U.S. economy. Even a full recovery will take years, not months. Knowing that the U.S. airline industry has critical financial support through the pandemic, allows us to plan our production and services system for the medium and long-term impact on air travel.

Greg will go through our liquidity situation in more detail a bit later, but let me just say, we believe that government support will be critical to ensuring our industry's access to liquidity. We continue to evaluate options in the capital markets as well as funding options from the U.S. government via the U.S. Treasury and various Federal Reserve programs. We've also taken other aggressive liquidity steps, including drawing down on a term loan, reducing operating costs, suspending dividend payments, terminating share repurchase authorization, reducing or deferring non-critical spend, and accelerating some progress payment receipts with the help from our defense customers.

Additionally, we are working to resize and reshape our business, starting at the top with our leadership structure. We are consolidating roles, simplifying processes, and focusing accountabilities. As part of this reorganization, I've asked Greg Smith, who most of you know well to take additional responsibilities leading our enterprise, manufacturing, supply chain, and services functions, in addition to his CFO and strategy roles.

Before I turn to our longer-term business environment and the steps we're taking to prepare for it, I want to call out the selfless contributions Boeing employees have made to the broader fight against the coronavirus. They've been producing protective face shields for distribution to healthcare professionals, have flown our aircraft on missions to transport critical healthcare supplies around the world, donated masks, gloves and other equipment, and contributed hundreds of thousands of dollars to food centers for people in need and that's just a partial list.

Now, I'd like to turn the attention to the outlook for our industry highlighted on Slide 3. The air travel industry has never seen anything quite like this. The latest IATA forecast projects full-year passenger traffic to be down 48% this year compared to 2019, as global economic activity slows down due to the COVID-19 and the governments severely restricting travel to contain the

spread of that virus. Here in the U.S., passenger traffic at this moment in time is down 95% compared to a year ago. Airlines are cutting back operations dramatically. As they assess their businesses, they're making difficult decisions that result in grounding fleets, deferring airplane orders, postponing acceptance of completed orders, and slowing down or stopping payments.

They are also accelerating aircraft retirements and requiring fewer services. The fundamentals that have driven air travel for the past five decades and doubled air traffic over the past two decades remain intact. We believe this industry will recover, but it will take two to three years for travel to return to 2019 levels and it will be a few years beyond that for the industry to return to long-term growth trends. Our outlook is informed by decades of analysis and insights on customer behavior including how the industry has reacted to prior market shocks. We incorporated assumptions related to a prolonged recession and potential consolidation within the industry in our assessment.

The picture is dynamic and subject to many unknowns, but as we see it today, narrow-body airplanes will lead the way to recovery trailed by wide-body fleets as airlines progressively bring their networks back online. Therefore, wide-body passenger fleets will likely be more significantly impacted than narrow-body airplanes in the near term. A key driver in both segments will be the rate of retirements of older fleets. We expect our customers to look at their fleet planning strategies differently in light of these dynamics. More than 2,500 aircraft with 20-plus years of service were in active service prior to the crisis. Replacements will not be uniform as airlines will focus on the oldest and least efficient to retire. Some airlines have already made announcements to this effect.

Airplanes that we plan to deliver this year will be 25% to 40% more fuel efficient than airplanes that they're replacing. Our position is helped by the value proposition of our family of airplanes and the diversity of our backlog. This includes our market-leading 787 Dreamliner family, our unmatched cargo line up, the world's largest and most efficient twin-engine jet 777X and the versatile 737 family. To balance the supply and demand given the COVID-19 shock and to preserve our long-term potential and competitiveness, we have decided to reduce the production rates of several of our commercial airplane programs.

Let's turn to Slide 4. In the narrow-body segment, we have assumed that we will resume 737 MAX aircraft production at low rates in 2020 as timing and conditions of return to service are better understood. We expect to gradually increase the production rate to 31 during 2021 with further gradual increases that correspond with market demand. The slower production rate ramp up reflects commercial airline industry uncertainty due to the impact of

COVID-19, and the production rate ramp profile is also affected by the pace of delivery of our stored aircraft.

We continue to see our new MAX airplanes creating capacity for growth and providing required replacements for older, less efficient airplanes. We will continue to work closely with our customers to review their fleet plans and make adjustments where appropriate to adapt to lower than planned 737 MAX production in the near term, provide more flexibility to deliver MAX airplanes in our backlog and protect the value of the MAX family.

Moving to the wide-body segment. We now plan to reduce the 787 production rate to 10 per month in 2020 and then gradually reduce to 7 per month by 2022. We will continue to evaluate the rate beyond 2022 to balance supply and demand. Our 787 Dreamliner family has a compelling value proposition, offering unparalleled fuel efficiency and range flexibility, enabling carriers to optimize fleet and network performance as well as profitability -- as well as profitably expanding to new markets.

Turning to the 777X. We've made progress on the 777X certification requirements and have resumed flight testing with the restart of our operations in the Puget Sound. We currently expect first delivery of the 777-9 to be in 2021 and will continue to manage the risks inherent in any development program, especially ones around certification in the post-MAX environment and COVID-19-related impacts. We now expect to deliver 777 at an average rate of approximately 2.5 per month in 2020. And due to the market uncertainties driven primarily by the impacts of COVID-19, we plan to reduce the combined 777/777X production rate to three per month in 2021. We will take a measured approach to the 777X rate ramp as we will look to minimize the amount of change in corporation work by managing the number of aircraft produced prior to entry into service. On the 777, as I discussed earlier, we will continue to closely monitor the cargo market and carefully manage our skyline.

Finally, we'll make no change to the 767 and 747 production rates at this time. These programs are targeted for the cargo market and approximately half of the 767 production line is dedicated to the tanker program. These rate decisions are based on our current assessment of the demand environment, taking into account a host of risks and opportunities. We will closely monitor the key factors that affect our skyline including the wide-body replacement cycle and the cargo market. We will maintain a discipline rate management process and make adjustments as appropriate in the future.

Now let's turn to Slide 5. The diversity of our portfolio is unmatched and our government services, defense and space programs will provide critical

stability for us moving forward. In fact our work in these areas accounted for 45% of our overall revenue in 2019 that will obviously increase in the year ahead. At Defense, Space & Security, we continue to see a healthy market with solid demand for our major platforms and programs, both domestically and internationally. Despite some near-term production impacts associated with our temporary suspension of operations at various locations, our portfolio of programs and technologies remains well aligned to our customers' missions. We are also well-positioned with proven world-class platforms to address current needs, and innovative capable and affordable new franchise programs for the future.

For example, the President's budget request for fiscal year '21 supports key Boeing programs, including the V-22 and Apache, 12 F-15EX aircraft and 15 KC-46A Tankers. It also requests funding in line with the expected development profile of future franchise programs, the MQ-25, the T-7A Red Hawk and the MH-139A Grey Wolf, and our extra large unmanned undersea vehicle. We have received broad support from the Pentagon for programs and products across the BDS portfolio. We are continuously improving performance of our existing platforms, including the KC-46A Tanker and our space programs. While the tanker program has had delays and other challenges, with this month's agreement with the U.S. Air Force to develop and integrate a new Remote Vision System, we will ensure that KC-46 becomes the standard by which all future refueling aircraft are measured.

Given its 2020 design update, no other tanker will have the technological capabilities of the KC-46. The men and women of the US Air Force have our full commitment, and our investment in tanker reinforces that dedication. Our space teams completed the core stage of NASA's Space Launch System and learned key lessons from the CST-100 Starliner's Orbital Flight Test. We will re-fly this test to demonstrate the quality of the Starliner system, paving the way for future crewed flights. It is the right thing to do for our NASA customer and the astronauts who ultimately fly on it.

As you may recall, we provisioned for another uncrewed mission in our financials last quarter. On the services side, we are seeing a direct impact on our commercial supply chain business as fewer flights result in a decreased demand for our parts and logistics offerings. Our commercial customers are curtailing discretionary spend such as modifications and upgrades and focusing on required maintenance. We anticipate accelerated retirement of older airplanes, which will result in a newer fleet when air travel resumes to previous levels, which will prolong the period of decreased demand for our commercial services offerings.

Similar to Commercial Airplanes, we expect a multi-year recovery period for the commercial services business. The demand outlook for our government

services business, which in 2019 accounted for just under half of the BGS revenue, it remains stable. The strength of government services provides a strong foundation for our overall services business. We see growth in a number of government services areas including ramp-ups to support international customers with training, logistics and supply chain offerings as well as growth on key U.S. programs.

In summary, our industry is going to look very different as a result of this pandemic and the economic impact it has had on airlines and schedules around the world. The resulting reductions in the BCA production rates I outlined will require us to make similar adjustment in our infrastructure, our spending and our workforce. We will be a smaller company for a while. We've worked hard to maintain the stability of our workforce avoiding layoffs even through the suspension of MAX production, doubling the length of time we pay employees impacted by the COVID-induced shutdown of Puget Sound, Charleston and other sites, bringing people back to work at those sites as soon as we safely could. But the sharp reduction in demand for our airplanes that we see out over the next several years won't support the size of the workforce we have today.

At this time, we are taking action to reduce our workforce by approximately 10% of our roughly 160,000 employees by end of this year, through the combination of voluntary layoffs, attrition and involuntary layoffs as necessary. This is 10% of the total for our enterprise. We'll have to make even deeper reductions in areas that are most exposed to the condition of our commercial customers, more than 15% across commercial airplanes and services businesses, as well as our corporate functions. At the same time, the ongoing stability of our defense, space and related services businesses will help us limit the overall depth of the cut.

Of course, we will continue to monitor market conditions closely in light of the unpredictable factors currently driving it and we will make ongoing adjustments as appropriate. We will continuously work to shape our business to compete and what we think the market will look like over the next five years. I shared this news with our employees this morning and I committed to implementing these reductions as fairly respectfully and transparently as possible and to providing as much support for our employees as we can through the duration of the global health emergency we are facing.

Before I turn this over to Greg, I want to update you on a couple of other important topics. First, our progress on safely returning the 737 MAX to service. We're continuing our work on the safe return of the MAX to service working closely with the FAA and other global regulators. Right now, we are focused on completing the software validation and required technical documentation that will precede a certification flight. Some of this

documentation work has taken longer than we anticipated and the coronavirus situation has also required some changes to how we do things including working remotely and virtual meetings with our regulators.

With that said, we've continued to make very solid progress and we currently expect that the necessary regulatory approvals will be obtained in time to support resumption of 737 MAX deliveries during the third quarter. Of course, the actual timing will ultimately be determined by our regulators. In the meantime, we have approximately 450 737 MAX aircraft built and stored and our MAX backlog has remained strong throughout this process at approximately 4,000 aircraft. They are the most fuel-efficient narrow-body planes in the market with useful lives well over 25 years. We have been working proactively with our customers to maintain the health of this backlog, while responding to their needs.

Turning to Embraer, we announced Saturday that we have terminated the agreement to establish a strategic partnership between our two companies, covering both the planned commercial and defense joint ventures. We worked diligently for two years to finalize the transaction, but ultimately we could not come to resolution around critical unsatisfied conditions for the deal under our Master Transaction Agreement. It is deeply disappointing but we have had reached a point where continued negotiation was no longer helpful and so we exercised the rights set out in the MTA to terminate the agreement.

Looking ahead, we will continue to concentrate on what is most important across Boeing. To that end, I established six company priorities in January. They included returning to the 737 MAX safely to service and earning back trust with our stakeholders. We are also committed to delivering excellence across our businesses and restoring our production health, and we are determined to invest in our future while always living our values. We will not lose sight of the importance of making investments that are critical to our future, such as the continued -- such as continuing to progress on our development programs such as the 777X and the 737 MAX 10. With that, let me turn it over to Greg for an update on our financial performance. Greg?

Greg Smith

Great. Thanks, Dave, and good morning, everyone. Let's please turn to Slide 6 for our first quarter results. Our first quarter results were primarily driven by the COVID-19 impacts and the 737 MAX grounding. Revenue, earnings per share and operating cash flow materially reduced. Prior to experiencing COVID-19 impacts, we were tracking well to meeting our original internal first quarter forecast. Our revenue of \$16.9 billion, reflects lower 737 MAX deliveries versus first quarter of last year, as well as fewer deliveries in the

quarter due to COVID-19. Core earnings per share was negative \$1.70 and earnings in the quarter were also impacted by a charge on the KC-46A Tanker program.

Before we discuss the segment performance, let me touch on 737 MAX. As Dave mentioned, we're currently -- have approximately 450 737 MAX aircraft built and stored in inventory. We continue to monitor and maintain these aircraft in a regular basis, including completing more than 1,000 flights over the past year. Also, as mentioned, primarily due to COVID-19 impacts, we've revised our assumptions on timing and the profile deliveries from storage and the production rate ramp. Delivery from storage will continue to be priority one, post assisting our customers with their return to service. These aircraft in storage will convert to significant operating cash over the period of time it takes to deliver these aircraft out of inventory.

In preparation for our first quarter financial statements, we made certain assumptions, including timing of initial deliveries, production and rate ramp profile. We've assumed that we will begin 737 MAX aircraft production at low rates during the second quarter 2020 as timing and conditions of return to service and COVID-19 impacts are better understood. We expect to gradually increase the production rate to 31 during 2021 and expect further gradual increases to correspond with market demand. We've assumed that the timing of regulatory approvals will enable the 737 MAX deliveries to resume during the third quarter of 2020. We've also assumed that a majority of the 737 MAX aircraft produced during the grounding and included within inventory will be delivered during the first year after the resumption of deliveries, although again at a slower pace than we previously assumed.

Again, the slower production and delivery rate ramp reflects commercial airline industry impacts as a result of COVID-19. In the first quarter, we reduced the number of aircraft in the 737 accounting quantity by 400 units as a result of the reduction to plan production rates due to COVID-19. The reduction to the planned production rates will result in further increases in cost to produce undelivered aircraft, primarily due to additional fixed cost absorption. This reduces program margins after deliveries resume. In addition, abnormally low production rates will extend for a longer period once production resumes and as expected to result in around \$1 billion of additional abnormal production cost, increasing the total from approximately \$4 billion to \$5 billion. These will be expensed as incurred, and we expect the majority of these abnormal production costs to be expensed this year.

During the first quarter, we expensed \$797 million of abnormal production costs. Any changes to these assumptions could require us to recognize additional financial impacts. There is no material change to our estimate of potential concessions and other considerations to customers for disruption

related to the MAX grounding and associated delivery delays. In the first quarter, we reduced the liability balance by approximately \$700 million, primarily through cash payments. We continue to address the impact individually customer-by-customer, including assessing the impacts of the MAX disruption is having on their operations in light of COVID-19 pandemic. We also continue to expect any concessions or other consideration to be provided over a number of years with the cash impact to be more front-loaded in the first few years.

Let's now move to the Commercial Airplanes on Slide 7. Our Commercial Airplane business revenue decreased to \$6.2 billion during the quarter reflecting lower deliveries, primarily by the 737 MAX grounding as well as impacts of COVID-19. Operating margins declined to negative 33.3% due to the following:

Lower delivery volume; \$797 million of abnormal costs from the temporary suspension of the MAX program mentioned earlier; a \$336 million charge related to the 737 Next Generation frame fitting component also known as the pickle fork and the repair cost associated with that; lower 787 margins primarily due to rate reductions related to COVID-19; and a \$137 million of abnormal production costs from the temporary suspension of Puget Sound operations in response to COVID-19. We saw approximately one week impact of these costs in the quarter.

We expect to see additional abnormal costs in the second quarter related to suspension of our Puget Sound and also our Charleston sites due to COVID-19 through April and early May. The 787 program margin decreased in the quarter, primarily due to lower planned production rates, which drove additional fixed cost absorption, higher disruption costs, and 100-unit contraction of the accounting quantity requiring us to recognize the remaining deferred balance over fewer aircraft. BCA backlog includes over 5,000 airplanes valued at \$352 billion.

As Dave mentioned earlier, the COVID-19 pandemic has significantly impacted aircraft demand, we're taking actions as a result of these new realities by adjusting production rates and our infrastructure, which will position us for the future and help us bridge to recovery. These rate decisions are based on current assessment of our demand environment and we will continue to closely monitor these factors that affect our skyline and make rate adjustments as appropriate in the future.

Let's now move to Defense, Space & Security on Slide 8. First quarter revenue decreased to \$6 billion, primarily driven by the charge on the KC-46A Tanker, BDS operating margins of negative 3.2%, primarily due to pre-tax charge of \$827 million for the KC-46A Tanker, of which \$551 million was

driven by the cost associated with the agreement signed in April with the U.S. Air Force to develop and integrate our new Remote Vision System, while the remaining costs reflect productivity inefficiencies and COVID-19 related factory disruption.

A number of other programs, including the VC-25B, were also impacted by COVID-19 further reducing margin in the quarter. There are provisions of the Care Act in our contracts that may provide an opportunity to recover some of these costs related to COVID-19 over time, and we'll continue to evaluate them. During the quarter, BDS won key contracts worth \$6 billion and our backlog now stands at \$64 billion with 28% from outside the United States.

Let's turn to Boeing Global Services results on Slide 9. In the first quarter, Global Services revenue was flat at \$4.6 billion, reflecting higher government services volume, largely offset by lower commercial service volume due to the COVID-19. BGS operating margin increased to 15.3% primarily due to favorable government service performance. During the quarter, BGS won key contract awards worth approximately \$4 billion, which brings its backlog now to approximately \$23 billion. We only saw the beginning of the impact of COVID-19 on our commercial services demand for the first quarter and we expect COVID-19 to have significantly larger impact on the BGS business in future periods.

To respond to this changing market dynamic, we are taking a number of proactive steps to right-size and ultimately better position our business for these new market realities, these include employment actions as well as proactively taking steps to right-size our inventory and tailor our portfolio to ensure that we're positioned to serve our customers both through this challenging time and when the industry begins to recover.

Let's turn now to cash flow on Slide 10. During our last earnings call, we shared that the use of cash flow this year is expected to be greater than 2019. Clearly, COVID-19 has made our cash flow situation even more challenging in 2020. The shift and severe impact it has had on the airlines in the global economy has added significant pressure on our cash receipts. Operating cash flow for the first quarter was negative \$4.3 billion driven by the lower commercial airplane delivery volume, advanced payments and impact of COVID-19, and timing of receipts and expenditures. And as discussed, COVID-19 also caused delivery and production disruption in the quarter. Also in the quarter, we spent \$428 million on capital expenditures, paid \$1.2 billion in dividends which were declared last December, and paid \$2.2 billion of debt maturity.

COVID-19 pandemic clearly presenting unprecedented challenges for our industry and our company. We're taking a number of actions to accelerate and conserve cash. In March 2020, we suspended payment of our dividend until further notice. Since April 2019, we've suspended our share repurchase program, and in March 2020, our Board of Directors terminated its prior authorization to repurchase shares of the company's common stock. And as previously mentioned, we have taken actions to reduce production rates in our commercial business, and we have furloughed certain employees, and as Dave discussed, will be taking workforce actions through a combination of voluntary layoffs, attrition and involuntary layoffs as necessary.

We have and we will continue to reduce discretionary spending. Also reducing or deferring research and development, and capital expenditures, but we will continue spending in key priorities and technologies that will be critical to our future into our customers' success. We're working with our government customers to assess and mitigate any impacts associated with COVID-19 pandemic. We appreciate the steps that the Department of Defense has taken to work with its industry partners to improve near-term liquidity in the forms of increased progress payment rates and reductions in withholds among other initiatives. In pursuit of the CARES Act, we're also deferring certain tax payments.

We are working with our supply chain partners to carefully manage liquidity, but at the same time doing everything we can do to manage the stability and health of our supply chain, as we manage through this demand shock to protect the long-term health of the US aerospace industry. We are focused on the best ways to keep liquidity flowing through our business and to our supply chain with this period. The most important source of liquidity for our suppliers is good credit of the OEM and Tier 1 suppliers.

As I mentioned, prior to COVID-19, we were tracking our internal first quarter and full-year forecast. Also as mentioned, COVID-19 is clearly putting additional pressure on 2020 cash flow and we expect operating cash to be more negative in 2020. We also expect a slower cash flow recovery going forward due to the revised 737 MAX delivery profile and the new wide-body production rates. Outside Commercial Airplanes, in commercial services, we expect cash flow generation to be solid and in line with earnings on the government side of our business.

Let's now move to Slide 11 and we'll discuss liquidity position and finance planning. As previously discussed, we drew down the \$13.8 billion delayed draw term loan early to help shore-up our liquidity position as we work through the current challenges. Also in the quarter, we paid down \$2.2 billion of debt maturity, resulting in an \$11.6 billion increase, bringing the total debt balance now to \$38.9 billion. We ended the quarter with \$15.5

billion of cash and marketable securities. Again due to COVID-19, our daily use of cash has continued to reduce this balance. We continue to have access to our \$9.6 billion revolving credit facility, which to date has not been drawn upon.

Given the significant impact of COVID-19 on our operating cash, we are proactively managing our cash position and working to access additional liquidity. We believe the government support will be critical to ensuring our industry's access to liquidity and we continue to evaluate options in the capital markets as well as funding options from U.S. government via the U.S. Treasury and various Federal Reserve programs. We will continue to review all available access and select the best options for our company. We believe through a combination of our actions and our ability to access additional liquidity, we will be able to obtain sufficient cash to fund our operations.

Managing our liquidity and balance sheet leverage are top priorities as we navigate this challenging environment. We plan to immediately reduce our debt levels once our cash flow generation returns to more normal levels. Again, we will not lose sight of making necessary investments in our business, our people, new technology and better processes and tools that are critical to our future. This includes recent organizational change, as Dave mentioned, to simplify and streamline roles and responsibilities and prepare now for the post-pandemic industry footprint. As part of that, I'm excited to take on a new role and work closely with our teams across the business units to drive operational excellence and restore production and supply chain health as we and the broader aerospace industry recover from COVID-19 pandemic and rebuild stronger.

The current environment is obviously very challenging and extremely dynamic. We're staying fully engaged with our customers, continually assessing the changing environment to ensure we have the right-minded about the near and longer-term demand. And as we discussed, we're taking and will continue to take appropriate action to bridge to recovery. But our company and the U.S. aerospace industry, and the 17,000 suppliers supporting it, can remain healthy and be well-positioned to capture future opportunities when we all emerge on the other side of this crisis.

With that, I'll turn it back over to Dave for some closing comments.

David Calhoun

Thanks, Greg. We're in an unprecedented period for the industry and the world, and I am humbled and privileged to lead the talented people of Boeing. We are and will be taking the right action to navigate through this

pandemic, support our workforce, maintain supply chain continuity and stability and position for a changing market. We continue to support our defense customers in their critical national security mission. We are progressing toward the safe return to service of the 737 MAX and we are driving safety, quality and operational excellence into all that we do every day. And through it all, we are keeping the health of our employees, their families and our communities top of mind.

We believe the long-term industry fundamentals remain strong and air travel will recover. Our portfolio of products and technology is well-positioned and we're confident we will emerge from this crisis and thrive again as a leader of our industry. History has proven Boeing is a company that rises to these challenges.

With that, Greg and I will be happy to take your questions. Thank you.

Question-and-Answer Session

Operator

[Operator Instructions]. Our first question comes from Peter Arment with Baird. Please go ahead.

Peter Arment

Good morning Dave, Greg, thanks. Thanks for your time. I don't know whether this question is for Dave or Greg, but maybe just Dave, the pace of deliveries for the stored fleet over once you get back to certification in Q3 over I guess the majority you're going to be looking to deliver over kind of a 12-month period, and then squaring that against the warming up of the production line and trying to get to a target of 31 aircraft, it just seems like a lot of deliveries. Maybe you could just kind of walk us through kind of how you're arriving at that? I know that that's just given the backdrop of what we're seeing in air travel right now. Thanks.

David Calhoun

Yes, thank you. Number one, as you probably know and has been reported on widely, we have been having conversations, intense ones for the better part of a month with our MAX customers about delivery and when to take them. And it's -- I would call it a wide variation with respect to what they ask for, some want them right away, some of them want to defer for quite a while. Our assessment is reflected in these numbers based on those interactions. And yes, there's more to be had. But we think it sort of accurately reflects that. And if anything in light of that, now all of the government resources that have been provided to many of the airlines,

which a month ago were still in doubt, some of that has settled down. So, now with respect to priorities, our priority will be to deliver the finished goods inventory that we have. And as a result, production rate is the one that we will sort of change based on what happens in the marketplace. Marketplace gets more robust for any reason, we'll increase that rate sooner rather than later. And if it defers and/or gets any worse, we will do the opposite.

So the variable in this is going to be the production rate, and a rate we've chosen now is 31 number, and a slow pace to get to 31 reflects everything we know about the conversations with all of our MAX customers.

Operator

And the next question is from Rob Spingarn with Credit Suisse. Please go ahead.

Rob Spingarn

This one is for you, Greg. Let's say that in the 787 -- seven 787s per month and 31 MAXs in 2022, and I guess three 777s is the new normal. What kind of free cash flow profile would you have with that assuming stable BDS and a reasonable recovery at BGS? I am talking about 2022 now?

Greg Smith

Yes, yes. Well, clearly Rob, to Peter's question, today that is the -- I would say the single biggest driver. To your point, we've kind of laid out at least currently how we're thinking about production rates in that timeframe, but the single biggest driver of that will be MAX. And not only priority one delivering off that ramp is being the first step, but then that production rate increased from there. And so, obviously the market's going to inform us how we can -- if we have the right profile that we've established today based on the numerous discussions we've had with the customer, but that will be the single biggest driver within that period. And then, I'd say outside of that is the 777 to 777X. As you know, 777x's use of cash this year will peak this year. We expect it to be a use of cash next year, but then it's cash flow positive in the following year. So that transition, that will take place will be key to 2022 cash flow. Obviously, we expect 2022 to be much better than what we're experiencing this year and next, but those will be the real I'll say key operational drivers that will allow us to get there.

Robert Spingarn

But Greg, is there any way to quantify what cash flow looks like with 787 at 7 a month, half of what the peak rate has been, and with the 737 just a little

over half, what that targeted mature rate would be? How do we think about what cash flow looks like in that environment?

Greg Smith

Yes, Rob, I don't want to get into specifics on that timeframe, because obviously as we sit here today, 2022 feels like a long way away considering what we're navigating, but it'll be -- obviously it'll be positive cash flow in that period from those key drivers. How positive? It will really obviously depend on rates even further going out, and not delivery rates as much it is, but production rates and advances that could impact 2022 positively or negatively depending on where rates go from there, but those would be the big drivers.

And like I said, now with these production rates we've established, that's our best assessment at this time. And that could change, it will size accordingly to do that. But 2022 starts to feel like a more normal year certainly than what we've experienced in '19 and what we're going to experience in '20.

Operator

Our next question is from the line of Seth Seifman with JPMorgan. Please go ahead.

Seth Seifman

A couple of questions about liquidity and capital structure. I mean you've got about 15 billion of cash on the balance sheet, but also about 5 billion of short-term debt and burning cash. Can you talk about the timeline? Can you talk about maybe the \$60-billion-plus number for the industry that you guys put out there several weeks ago and kind of what was in that and how you think about it now? And can you talk about whether Boeing needs to be an investment grade rated company?

Greg Smith

Yes. Maybe, I'll let Dave address the industry and then I'll follow up.

David Calhoun

The \$60 billion number of course was put together early in this process, and credit markets were as tight as they could be, and we were trying to assess the fragility of mostly the supply chain frankly, and we do have some weak or soft spots in that supply chain. But with respect to Boeing's role in the health of the supply chain, I think everybody here knows that the real leverage for us is when we are sound and our credit is good and we place

orders against all of our supply chains, then in fact that provides the liquidity that they need ultimately to make the adjustments that they're going to make in response to our production rates.

So that in and of itself, whatever ultimately we do and the liquidity we provide to our suppliers is most important. But our number was meant to represent sort of the whole, all of the supply chain, 17,000 suppliers, the tier 1s and the support that the tier 1s might need, and I can't speak to that. And so, again, \$60 billion number was in fact an industry number, not a Boeing specific number.

Greg Smith

Yes. And then Seth, just on your second part of your question around being investment grade, certainly we would like to maintain being investment grade. And I think as you've heard and seen that we're doing everything possible to do that. But look, the market's probably going to impact that more than anything. Fortunately as we now -- we started that position of strength with our balance sheet, that's allowed us to navigate it. And as Dave and I outlined, we're taking all the right steps to manage liquidity day in and day out and prepare for a recovery on the other side.

But at the end of the day, it's going to be what it's going to be on the investment grade. But certainly we'd prefer to stay investment grade. And again, I think we're doing all the -- taking all the right actions to try to maintain that.

Operator

And our next question is from Carter Copeland with Melius Research. Please go ahead.

Carter Copeland

Just -- Greg, just quickly on the 87, I just want to make sure I heard you right on the block reduction. I think you said 100 units. I wondered if you could just give some color on why to reduce that or there's a lack of visibility around unsold pricing? And then just with respect to that, what that did to the deferred production, I mean it looks like a \$2 billion number in the quarter. That would kind of imply that you've shaved that program margin down to a pretty razor thin level. Am I missing something in the math there?

Greg Smith

No, I think you got it right. I mean the contraction in the cost base was driven by time. So, it's staying within the five year period that we have on

cost basis. So, as a result of producing fewer units that caused us to contract that cost base by a 100 units. I would say even with that contraction, when you look at margin going forward on the 787, even with the lower production rates, net-net on a unit basis, it holds up pretty well. And the real key drivers, that even with the lower volume, like I said, we're going to be impacted by the fixed costs. But you kind of come back to the fundamentals on the backlog and the profile, the program going forward, when you look at model mix, you look at supplier step down and even with our own productivity, it is impacted, like I said, but the not impacted as much as I think some would expect. So I think those fundamentals -- we would ask, don't lose sight of those because there's still a key driver to cash margin on the program.

David Calhoun

Maybe one other comment with respect to the market backdrop on the 787, the demand for the 87 is pretty strong. Our issue is, in our assumptions and we think we're right is that the international route structures are going to come back much slower than the domestic ones. And as a result, the 87 suffers for that. But otherwise the airplane's performance, its utilization right now in the marketplace is pretty amazing. So we feel good about the airplane, but this pushover, based on the assumptions we've made, it is what it is.

Operator

And next we will go to Noah Poponak with Goldman Sachs. Please go ahead.

Noah Poponak

I wanted to try if at all possible to get precise or more precise on -- it's clearly challenging out there, but just how many of your customers are attempting to revise their position in the delivery skyline? Because the traffic gross numbers and just the way it feels, it looks and feels like you could imagine literally every single one of your customers having a conversation with you about deferring or canceling, but you are maintaining 10 a month on the 87 for the year, which would suggest that's not happening. I'm pretty surprised by that.

You're telling us your conversations with your MAX customers suggest, they still want the airplane, something -- for a decent amount of them, somewhere close to where they originally wanted them. So I don't know if there's any way to quantify, what percentage of your customers are asking to move or just what percentage of your customers are just sticking to what they had previously, what percentage of backlog you expect to be canceled.

I'm just trying to get some kind of sense for the degree of turmoil in the immediate term with your customers' ability to take airplanes?

David Calhoun

So let me take a swing at that. First of all, I'm going to assume if we haven't heard from literally all of our customers by now, we will, with respect to what they would like to do. And these discussions are constructive and we do everything in our power to defer when we can swap where we can, et cetera. And remember, a lot of our customers, all of them are invested with respected PDPs that of course we have retained.

So each of these discussions, believe it or not, have been quite constructive and productive. And everything we know about their initial requests are reflected in our new production rates. And it's not to suggest that there isn't risk remaining on the demand side. But we're not looking for rose colored glasses, we're actually doing quite the opposite, which is to meet as many of these requests as we can, negotiate outcomes where we can and we have a whole bunch of them. And then reflect that accurately in the production rates in the forward view and that is exactly where we sit.

So anyway, it's surprising. But the one thing that's probably surprised me a bit is the extent to which this will accelerate fleet rationalization in the customer base. You know this scenario, we went from a robust growth environment, where even if they had plans to retire a portion of their fleet, they couldn't do it simply because the market wasn't robust as it was, and they've now gone to the polar opposite. And so this is that moment where rationalization efforts get big. And believe it or not, in some cases, it even requires that maybe new airplanes they ordered, simply to rationalize the fleet that they're trying to put out of business.

So this is a very interesting set of dynamics. The fleet planning efforts are in full swing for everybody. And again, I think we've reflected everything we know.

Noah Poponak

Dave, when I went to look up how much of the market is sale leaseback, I reminded myself -- I was surprised to remind myself how large that is. A lot of the large publicly traded leasing companies have raised capital recently. You have state-owned customers, and you just have customers that have a good financial position coming into this. Is it reasonable to assume that, that set of customers that I just described can hold -- as challenging as things are, can hold it together through 2020 until things are normalized and they're growing again in 2021?

David Calhoun

In my experience and I've lived through it in my life at GECAS back in the post 9/11 world. It turns out that is exactly what holds up. And we believe that in fact it will hold up again. And a lot of the discussions we've had been with financial markets and lessors, as you would imagine. So I think your assumption is correct and part of our assumptions in this process reflect the discussions we've had with financial sources. So I guess, yes, is the answer, I can't put an absolute number on it for you but it's clearly reflected in our numbers.

Operator

Our next question is from Doug Harned with Bernstein. Please go ahead.

Doug Harned

On liquidity. This morning, Airbus management described a lot of the same liquidity issues that you're describing today, with the focus on the supply chain's health. And it appears that the biggest cash risk that you're facing is also with the supply chain, you have the discussion around the \$60 billion before. But when you look at the responsibility for the cash needs of suppliers, it crosses Boeing, it crosses Airbus with a lot of overlaps. You've got support potentially from governments and then the suppliers themselves. So it looks like there are a wide range of potential scenarios here for what the cash outcome could be for Boeing related to the supply chain. Can you talk about how you work with the different constituencies to try and address this? And can you give us a sense as to what the range of outcomes could be here as you look over the next year?

David Calhoun

Well, let me take a crack at this first. The right order of business is the one that is going on right before our eyes. And the first is to get the airlines from the pre-COVID moment into the post-COVID moment and for them to be warm when they get there so that they can begin that recovery process. That in and of itself puts some stability out there in the marketplace and it allows us, Boeing, to now look at medium term demand long-term demand and make the adjustments in accordance with that. We believe we have a balance sheet and we believe we have tools available to us and credit markets that are open enough to us to be able to get from here to there and get there with room to spare.

As we do that, our good credit then extends into the supply chain and the supply chain then has to make a whole bunch of adjustments on their own to reflect the new production requirements at both Airbus and Boeing. So

again the airlines, bridging that moment, Boeing-Airbus, access to credit and their ability to finance from here to that medium term moment and then the supply chain's ability to now restructure themselves to meet that new demand, but always relying on our credit and always relying on our factories being open, that's a real advantage. And then the tools that the CARES Act has put in place and we do work closely with the administration on trying to get them to understand where the soft spots might be in that overall supply chain and direct those tools to that supply chain.

And that's the process that's unfolding before our eyes. Believe it or not, I think it's robust and it's working. And so I'm not anticipating at least at this moment in time any big or serious repercussions from supply chain issues in some ways. Just in the last two or three weeks as governments have stepped up with their tools, et cetera, there's been a little more stability than there was just prior.

Doug Harned

So is it fair to say, as you and Greg look at the range of possible outcomes here, with respect to the suppliers, when you're talking about feeling fairly confident in this now, you're able to say you can take off some worst case scenarios that perhaps were there back when you mentioned that \$60 billion. So that even under the sort of current worst case here, you're fairly confident you're in solid shape for this year.

David Calhoun

We are. And I know you would imagine, but we have a lot of folks who help us with this and we have stress tests the case that we're putting forward in many, many ways that are much more difficult than what we believe we're going to do. And we do get through it. And we do ultimately when we do take on more debt, we also believe strongly that we're going to start paying it down. Now at what rate we pay it down is the real question, but when we get to some form of stability at these production rates, and I believe we'll be in good shape to begin that process of returning money to our lenders.

Operator

Our next question is from Ron Epstein with Bank of America. Please go ahead.

Ron Epstein

Maybe changing the focus a little bit to product strategy, with the Embraer deal not playing out and then NMA being off the table, how do you think about competing against Airbus who has a product at the lower end of the

market and a product at the higher end of the narrow-body market where it seems like the MAX is -- it's fine, but it's -- how can I say, it's sandwiched between aircraft that are optimized on both ends of the market by your competitors. So, particularly in an environment where you're constrained on your R&D spend and your development spend?

David Calhoun

Well, with respect to MAX, I have a lot more confidence in the MAX and its place in the market than maybe the question implies. We have a value prop that actually is still pretty good. In some ways, if airplane loads want to get smaller as a result of maybe a smaller set of passengers flying on them in the next several years, it might actually play to us.

We have a robust backlog with it and we are not out of the product development business. We're definitely in it. We are invested in capabilities with respect to manufacturing and engineering that we believe will offer a very differentiated product in whatever strategy we choose. And we're fast at work at that stuff and we continue to be at work on it. It will probably not be applied to an NMA. And I think we've conveyed that to the marketplace.

But this time actually in some of these market changes, and then those important technologies we're investing and I actually -- I have a lot of faith in the product that we currently serve it with; and then secondly, the capabilities we'll bring to whatever we eventually develop as a next gen. And in the meantime, on a wide-body world and particularly in the freighter world, we like our strategies, we're going to continue to invest in it. And I believe at a moment that's our -- probably our biggest priority.

So -- and then at the low end, Embraer is not going away, they're going to fight tooth and nail to win at that low end of the marketplace and they'll battle Airbus, the former Bombardier and doing so, and I don't think that's going to move the market in any significant way and/or affect the future of Boeing in any significant way. So anyway, that's probably in a nutshell.

Operator

Our next question is from Sheila Kahyaoglu with Jefferies. Please go ahead.

Sheila Kahyaoglu

Hi, good morning, Dave. And Greg, thank you for the time. Dave, you mentioned on wide-bodies. I'm just following up on this. You seem pretty comfortable that the bottom of demand is in. Given this is largely a replacement market and granted not uniform, what type of retirement rates are you thinking for the industry?

David Calhoun

Well, I don't have a retirement number on the tip of my tongue. Sufficed to say, there are going to -- retirements are going to accelerate in my view considerably and airplanes are going to get put down permanently at a faster rate. That's the most important part of this. They get put down permanently, not that they just get part.

And so I do think that actually is going to play to our favor. I love where our product line is. I think it's fundamentally advantage. Unfortunately, this international route structure I just think it's going to take longer to recover. And as a result, we'll suffer with respect to ramp. But I do feel very good about it. And I do think retirements are going to fuel a fair amount of our demand.

Greg Smith

Yes. And I'd just add to it, Sheila, you know very well, when you look at the number of airplanes that are 20 plus years old and it's a significant amount. And then to Dave's point, at least we are picking up on the customer side, they'll be put down and won't be coming back up. And when you look at what we have in the pipeline or in the backlog to some of those customers from an efficiency point of view, obviously there's significant improvements and it crosses the entire product line. So, we'll see how it goes. But I think across the globe we're hearing a lot more commitment to retiring that age fleet, and to Dave's point, retiring for good and not bringing it back and we'll continue to monitor that. Obviously we'll take that into account as we think about our production schedules going forward.

Sheila Kahyaoglu

Greg, just on that point, should we think about production in line with deliveries. So production equates to deliveries for wide-bodies in 2020 and '21 and beyond?

Greg Smith

Yes, I think the only one that may be a little off is that the transition from the 777 to 777X through that period as we're building the balance of the flight test airplanes. But outside of that, pretty good correlation, production rate to delivery rate. Of course MAX being unique as we talked earlier. Yes.

Operator

Our next question is from Jon Raviv with Citi. Please go ahead.

Jon Raviv

Want to just ask a question about the 45% of the business that is a defense right now. I think on the last call you mentioned that defense cash flow might be a little bit down year-on-year this year due to timing mostly. But how do you see that playing out on going forward? And I ask that in the context also of a lot of the gross items in your defense portfolio being related to very new programs. We've taken on some risk on the front end in terms of investments. How do see those dynamics playing out over the next few years as a way to plug some of the hole being created by aero clearly being down here?

David Calhoun

Greg, do you want to take that one or do you want me to?

Greg Smith

I'm sorry. I missed part of it. I apologize. It cut out on me.

David Calhoun

This is with respect to our defense business and I'll start with it. You are in fact correct. 2019, where we did have some balance, the defense business was 45%. This year of course the defense business will probably be bigger than the commercial business and that will probably hold for a little while, of course, with these new rates and deliveries. So, that's an important part of our company that I'm not sure a lot of people reflect. The risk elements associated with our defense portfolio now -- I'm not going to knock on wood while I say it, but I believe we've de-risked much of our portfolio largely as a result of the significant issues we had on tanker and of course the continuous write-offs that we had to experience. I do believe that, that program now is exactly where it needs to be. We're going to finish well. Importantly, our customers are going to feel like we have finished well and we've delivered a product that is second to none. So I do believe that even the tanker future is significantly brighter than the one we've experienced up until now. And then our fighter aircraft, we will continue to supplement or attempt to supplement our order stream and production build. And largely with the help of a Defense Department whose posture is to want to do those kinds of things, particularly in this moment in time. So again, feel good about that.

And on the development front, our development programs at the early stages are all looking quite good. We're really not off plan on anything. And usually by now we have a sniff that we might be. So again I feel pretty good about the risk profile of our defense business, despite the difficulties that

we've attempted to overcome in just the last couple of years, Greg, if you want to add anything to that.

Greg Smith

Yes, no, I agree with everything you said, Dave. And obviously, when you look at the portfolio mix, Jon, that MAX ramp up, that's where it'll start to differentiate, go back to a richer mix on the commercial side. But outside of that I think it's pretty much the way Dave outlined it. And on the development program, as Dave said, we've tried to derisk a lot of these upfront, especially some of those wins that we had most recently. And outside of that the portfolio is actually performing well as is the BGS government services side of the business. So we got to keep that engine running smoothly as well.

Maurita Sutedja

Okay. Operator, we have time for one more question.

Operator

And that will be from Myles Walton with UBS. Please go ahead.

Myles Walton

In a prior question, I think you talked about 2022 cash flow -- free cash flow as being kind of the pointing north for us to look at. I'm just curious in '21, is there any reason we shouldn't expect that to be a sizable positive cash flow year given the liquidation you're talking about the MAX or are the advances headwinds enough for '21 to also be negative?

Greg Smith

Yes. No, definitely '21 is -- at least as we have a forecast to be a much better than '20, a lot of key elements in that is certainly the MAX again, the profile, the MAX deliveries coming off the ramp and the production. There is more impact on the progress payment side. But again, as I've talked about, operationally on the 787 we're still seeing good cash conversion on the program. And then -- and like I said, 777X has improved from a cash burn in '21 as well. So lots of moving pieces as there always is. But the single biggest driver in there is MAX, the right ramp on MAX and that's what will contribute to a much more improved 2021 versus 2020.

Myles Walton

Sorry, Greg, just to underline, that though improved, is it positive? Do you kind of feel comfortable enough to say that?

Greg Smith

Yes. Our current forecast based on all the rate discussions we just had today is a positive 2021 cash flow.

Maurita Sutedja

Alright. So that completes Boeing Company's first quarter 2020 earnings conference call. Thank you all for joining.