



THE BOEING COMPANY  
2021 ANNUAL REPORT

# Forward, Together





“With revitalized spirit and an unwavering commitment to transparency in all we do, we are transforming to be a better, stronger Boeing, propelled by the spirit of innovation that has been our hallmark for more than a century.”

DAVID L. CALHOUN  
President and CEO

THE BOEING COMPANY	STAKEHOLDER-DRIVEN TRANSPARENCY	CONTENTS
<p>As a leading global aerospace company, Boeing develops, manufactures and services commercial airplanes, defense products and space systems for customers in more than 150 countries. As a top U.S. exporter, the company leverages the talents of a global supplier base to advance economic opportunity, sustainability and community impact. Boeing’s diverse team is committed to innovating for the future, leading with sustainability, and cultivating a culture based on the company’s core values of safety, quality and integrity. Learn more at <a href="https://www.boeing.com">boeing.com</a>.</p>	<p>Boeing is committed to transparency. Through our annual disclosure and reporting cycle, we compile and share a broad set of data, information and operating examples for our stakeholders, including our employees, customers, industry partners, investors, regulatory authorities, communities and others. Using the most widely applicable disclosure frameworks, Boeing reports each year on our financial performance and company priorities; our employee demographics and progress toward achieving equity, diversity and inclusion commitments; our sustainability-focused environmental, social and governance performance; our community investments and advocacy; and our industry-leading aerospace market outlooks.</p>	<p>A Letter From Boeing President and CEO David L. Calhoun 1</p> <p>Revolutionizing How We Operate 6</p> <p>Embracing Unique Perspectives 7</p> <p>Safely Returning to Service 8</p> <p>Diversity in Action 10</p> <p>Sustainable Aerospace 11</p> <p>Global Solutions for Global Needs 12</p> <p>Driven by Purpose 14</p> <p>Executive Council 15</p> <p>Company Highlights 16</p> <p>Form 10-K 17</p> <p>Caution Concerning Forward-Looking Statements 144</p> <p>Non-GAAP Measures 145</p> <p>Selected Programs, Products and Services 146</p> <p>Shareholder Information 156</p> <p>Board of Directors 157</p> <p>Company Officers 158</p>
<p><b>COVER PHOTO</b></p> <p>Dave Ieng (<i>right</i>) and Michael Bundy conduct checks on a 777X airplane at Boeing Field in Seattle. Known as WH001, the airplane is one of four 777-9s in a rigorous test program.</p>	 <p>To view our Annual Report online, along with additional 2021 Boeing milestones, scan the QR code with your smartphone.</p>	
<p>All photography was conducted in compliance with applicable COVID-19 requirements.</p>		



## A Letter From Boeing President and CEO David L. Calhoun



2021 was a year of recovery, rebuilding and resilience for our industry and for The Boeing Company. Our progress and milestones steadfastly reinforced our highest priority — enabling the safety, security and protection of everyone we serve. We made significant strides toward strengthening our safety culture, investing in our talent and instilling renewed discipline and rigor throughout our operations. I am extremely proud of our team's accomplishments and resolve in building a healthier and stronger company. We know that our industry is a resilient one. Together with our customers and partners, we are charting the course for recovery as we innovate for a brighter, sustainable tomorrow.

### Ongoing COVID-19 Recovery

The world at large navigated a second consecutive year of the COVID-19 pandemic and its wide-ranging social and economic impacts on businesses and the ways we work. In the latter part of the year, surges of the Delta and Omicron variants came about fast and strong, necessitating ongoing changes in COVID-19 requirements and guidance in varying measures across the globe.

Through it all, we worked diligently and collaboratively across the industry advancing our Confident Travel Initiative (CTI), further enhancing health safeguards for air travel. We remain inspired by the critical work of the CTI team as they actively lead the global

conversation on the safety of air travel amid COVID-19, applying proven aerospace engineering practices and data to develop new solutions.

The commercial market continues to improve, enabled by wider vaccine distribution and an encouraging increase in travel demand, particularly in domestic markets. We look to the next phase of recovery in regional markets followed by long-haul international routes.

The commercial services market began to rebound as air travel returned and customers utilized faster procurement channels to place e-commerce parts orders.

We witnessed the ongoing human impact of the virus globally and the toll it has taken on our local communities. Boeing, and its 142,000 teammates around the world, are grateful for the efforts of all first responders, healthcare workers and researchers who continue to keep us all safe where we live and work. I am humbled by our Boeing teammates who find ways to overcome the challenges of the pandemic and support our local communities in need, while ensuring we deliver products and services to our customers with utmost safety, quality and transparency.

### Rebuilding Trust

We profoundly committed to regaining the trust of our customers, regulators, investors and other key stakeholders through transparency, integrity and

## 737 MAX 2021 MILESTONES

Global regulators and aviation organizations from around the world collaborated to allow the airplane to safely return to service.	JANUARY	FEBRUARY	MARCH		APRIL
	<ul style="list-style-type: none"> <li>European Union Aviation Safety Agency (EASA) and U.K. Civil Aviation Authority approvals for 737 MAX return to service</li> </ul>	<ul style="list-style-type: none"> <li>Air Canada, United Airlines and TUI return 737 MAX to service</li> <li>UAE General Civil Aviation Authority approval</li> </ul>	<ul style="list-style-type: none"> <li>Australia Civil Aviation Safety Authority approval</li> <li>Alaska Airlines introduces 737 MAX into service</li> <li>Southwest Airlines returns 737 MAX to service</li> </ul>	<ul style="list-style-type: none"> <li>Investment firm 777 Partners orders 24 737-8s</li> <li>Southwest Airlines orders 100 737-7s and 737-8s</li> <li>Federal Aviation Administration certifies 737-8-200</li> </ul>	<ul style="list-style-type: none"> <li>EASA certifies 737-8-200</li> <li>flydubai and Turkish Airlines return 737 MAX to service</li> </ul>

delivering on what we promise. With an unwavering dedication to safety, our 737 program teammates have been working around the clock globally to support our customers as they return airplanes back to service. Regulators in 185 out of 195 countries — including China, Ethiopia and Indonesia — have allowed the 737 MAX to resume service or fly within its airspace.

Since its return to service starting in late 2020 through the end of 2021, the 737 MAX made nearly 300,000 revenue flights for 35 operators, accounting for 720,000 flight hours with more than 99% schedule reliability. In addition, we delivered 272 737 MAX airplanes over that period and we're poised to continue steadily increasing production.

Boeing is navigating the 787 Dreamliner return to delivery with the same disciplined approach as we did with the 737 MAX return to service. We are actively and transparently communicating with our regulators, customers and suppliers every step of the way as we move closer to delivering airplanes and bringing more predictability and stability to the program for the long-term.

The in-service 787 fleet continues to satisfy customers and outperform in the market as the most utilized widebody during the pandemic — with nearly 99% of in-service 787s returning to revenue service compared to prepandemic levels.

With safety and quality guiding our recovery, we prudently managed our financials and began to see the results

from our enterprise transformation initiative to drive simplification and stability across our operations. By the end of 2021, our actions, coupled with market recovery, helped generate positive operating cash flow in the fourth quarter — a key financial milestone — and builds on our path to sustainable cash generation in the years ahead.

### Market Opportunity and Increasing Cargo Demand

Our 2021 Boeing Market Outlook projects a \$9 trillion market opportunity over the next decade for aerospace products and services. At the end of 2021, we had a backlog valued at more than \$377 billion — including approximately 4,200 commercial airplanes — demonstrating Boeing's comprehensive product and services lineup to meet this demand.

Supply chain disruptions and limited cargo belly capacity on passenger planes due to the pandemic, as well as increasing e-commerce, has led to an increase in near-term cargo demand, including dedicated freighters — both new and converted models. Long-term, we project the global freighter fleet in 2040 will be 70% larger than the prepandemic fleet, continuing to be driven in part by e-commerce.

To satisfy global demand from operators worldwide, we announced plans to increase freighter conversion capacity with the addition of 10 conversion lines across new and existing maintenance, repair and overhaul suppliers.



JUNE	AUGUST	SEPTEMBER	NOVEMBER	DECEMBER
<ul style="list-style-type: none"> <li>● Flair Airlines introduces 737 MAX into service</li> <li>● 737-10 first flight</li> <li>● Ryanair introduces 737-8-200 into service</li> <li>● United Airlines orders 200 737 MAX airplanes</li> </ul>	<ul style="list-style-type: none"> <li>● India Directorate General of Civil Aviation (DGCA) approval</li> </ul>	<ul style="list-style-type: none"> <li>● Civil Aviation Authority of Malaysia approval</li> <li>● Civil Aviation Authority of Singapore approval</li> </ul>	<ul style="list-style-type: none"> <li>● Akasa Air orders 72 737 MAX airplanes</li> <li>● SpiceJet returns 737 MAX to service</li> <li>● South Korea Ministry of Land, Infrastructure and Transport approval</li> </ul>	<ul style="list-style-type: none"> <li>● Singapore Airlines returns 737 MAX to service</li> <li>● Civil Aviation Administration of China approval</li> <li>● Indonesia DGCA approval</li> <li>● Civil Aviation Authority of Vietnam approval</li> </ul>

We booked record orders in 2021 for new and converted Boeing freighters, including 84 orders for our 767, 777 and 747 freighters.

As air traffic rebounded and operators looked for more efficient ways to procure parts and service for their fleets, Boeing also reached a record high for e-commerce parts sales in a single year with more than \$2 billion in 2021.

### Defense, Space and Security Missions

Boeing's Defense, Space and Security portfolio continues to deliver on its mission to equip the U.S. government and allied nations with the latest advanced technologies and products. We are focused on providing our security customers — who require speed and flexibility — digital solutions and cutting-edge products and platforms that meet the growing demand in the global security market.

In 2021, we delivered 169 total aircraft including Norway's first P-8A Poseidon and the first KC-46A tanker to the Japan Air Self-Defense Force. The KC-46A has been approved by the U.S. Air Force to refuel almost 70% of receiver aircraft and is successfully flying refueling missions with operators — delivering more than 60 million pounds (27 million kilograms) of fuel to a wide range of aircraft.

Our commitment to support our space mission with uncrewed and crewed flights of the CST-100 Starliner remains steadfast, and we continue to work closely with NASA as we go forward.

### Progress on Development Programs

Our defense development programs are making good progress, as we successfully completed the first carrier tests with the U.S. Navy for the MQ-25 uncrewed aerial refueler and started flight testing on the second uncrewed Airpower Teaming System. We are also integrating our learnings from the defense programs into our commercial development process.

As proudly featured on our front cover this year, the 777X made its international debut at the Dubai Airshow in November — the first in-person international air show since the height of the pandemic. We continue to guide the airplane through a comprehensive and rigorous test program to demonstrate its safety, performance and reliability as we engage with the FAA and global regulators on our progress, and look forward to delivery of the first airplane.

Our customers recognize the compelling economics and sustainability benefits — including 10% improvement in fuel efficiency and emissions over the competition — of the 777X, which will be the world's largest and most efficient twin-engine jet. We are also excited to have launched the latest member of the 777X family, the 777-8 Freighter, with an order for up to 50 from launch customer Qatar Airways.

Throughout our development process, we are considering the full life-cycle of our products and services in close

collaboration with our customers in order to offer mutually-beneficial solutions. In doing this, we are developing new ways to share data through a digital thread that will integrate our products, customers and suppliers. We are utilizing new innovation and digital enablement as a strategic capability during the development of new products and services.

We are also advancing our development of the 737-7 and 737-10. The 737-7, the smallest airplane in the 737 MAX family, has completed its flight test program. Boeing is now working with the FAA to complete all deliverables for type certification. The 737-10, the largest airplane in the 737 MAX family which can carry up to 230 passengers, completed a successful first flight in June.

### Our Digitally-Enabled Future

In September, Boeing launched an integrated approach to all digital efforts to support our next suite of products within a digital ecosystem. This fully dedicated team is creating the digital environment where the next new airplane and production system can be designed together, providing significant benefits in first-time quality throughout the design and manufacturing process. This digital environment will provide connectivity for data-driven decision making from design and production to manufacturing and services.

The effort builds upon years of learnings from programs across Boeing, including the first digitally designed aircraft developed for the



United States Air Force, the T-7A Red Hawk. Our production line employees on the T-7A already attest firsthand that their experiences working in this digital, collaborative environment are favorable.

While the initial intent is to leverage the team to inform digital development of the next commercial airplane, the work to increase data collaboration across the entire company will support development, production, and manufacturing in our defense and services businesses as well.

### **Sustainable Aerospace**

At Boeing, sustainability is rooted in our values, our stakeholders' expectations, and encompasses our focus on environmental stewardship, social progress and inclusion, and values-based, transparent governance.

As a company whose purpose is to protect, connect and explore our world and beyond, we fully support the importance of safe and sustainable aerospace. We envision that by 2050 air travel will carry more than 10 billion passengers a year, and support 180 million jobs, safely and sustainably. We are collectively inspired and motivated by a united purpose — enabling all of humanity to take flight safely, including the 80% of people around the world who have yet to take their first flight.

At the same time, commercial and defense customers and governments around the globe are committing to

bold climate change ambitions. We support our industry's commitment to achieve net zero carbon emissions by 2050 and are already partnering across the sector to decarbonize.

The actions we have already taken include our commitment to deliver commercial airplanes that will be capable of flying on 100% sustainable aviation fuels by 2030. Additionally, we recently announced a further investment in Wisk Aero to advance its 6th generation electric vertical take-off and landing (eVTOL) aircraft. Wisk, a joint venture established in 2019 by Boeing and Kitty Hawk Corporation, is dedicated to delivering safe, everyday flight for everyone. We'll continue to share the progress we make through our annual Sustainability Report, which we published for the first time in 2021, underscoring our commitment to advancing sustainable aerospace for the greater good of our customers, our industry and the environment.

### **Our Culture of Inclusion**

Our teammates collaborate to make the world better — creating powerful technologies, services and products that connect the globe, protect freedoms and borders, and advance scientific discovery from the seabed to deep space. Our ability to innovate and achieve success depends on our diverse, global team working together, supporting one another and living our values.

**“It's said that we are what we repeatedly do, and that excellence is therefore not an act but a habit. The challenges we are working through today on the 787 program will position us for sustained excellence and success in the long term.”**

**MATTHEW BUCALO**  
787 Chief Mechanic



*To learn more about equity, diversity and inclusion at Boeing in 2021, scan the QR code with your smartphone.*





More than 10,000 employees each year receive tuition assistance through Boeing's industry-leading Learning Together Program, including Nelson Akwari (right), who earned his PhD in Materials Science and Engineering in 2021. Akwari's innovative work at Boeing is also being recognized by the National Society of Black Engineers, with Pioneer of the Year and Distinguished Engineer of the Year awards.

"Furthering my education with this benefit Boeing offers was a rewarding experience that allowed me to hone my skills, providing more perspective on critical problem solving and investigating theoretical data."

**NELSON AKWARI**  
Operations Superintendent  
& Site Leader, Boeing  
Interiors Responsibility  
Center South Carolina

Across Boeing, we are committed to investing in our teams' career development and fostering an atmosphere where all teammates can bring their whole selves to work and grow in their Boeing careers with opportunities to develop and make an impact. This longstanding promise to our team is especially critical as the competition for talent grows increasingly fierce. We also continue to focus on growing and developing our engineering talent pipeline. The work we do across commercial, space, defense and services changes the world — and our engineers are at the forefront.

As we build a more inclusive workplace, it is important for all voices to be valued and heard every day. We encourage employees, managers and colleagues to seek, speak and listen in all interactions, and when challenges arise, reach out and ask questions to get to the heart of the matter. It's through this openness that we better communicate, operate, and innovate as a company.

We will continue to share progress on our commitment to advance equity, diversity and inclusion within Boeing and beyond as seen in our first Global Equity, Diversity & Inclusion Report, released in 2021. As we further transform for the future, this work is foundational to our company values and central to our business strategy for the long-term.

### Making a Difference Globally

When U.S. forces pulled out of Afghanistan at the end of August, the digital flight solutions offered by Global Services played a vital role in the massive operation that evacuated more than 124,000 people from the Kabul airport. Every single country that operated flights into and out of Kabul during the airlift effort utilized Boeing's Military Digital Solutions.

We are thankful for the courage of the men and women of the military from the U.S. and from allied nations that led evacuation efforts on the ground. We are proud to have played a role in supporting them with unique requirements for various aircraft. Our Global Services team helped increase the payload to accommodate extra passengers on the Royal Australian Air Force' C-17 Globemaster III aircraft and improve confidence in certain key components of the United Kingdom's fleet of C-17s. Boeing employees also delivered navigation and data products for other aircraft in the U.S. Air Force and U.S. government's Civil Reserve Air Fleet.

These key moments are among many stories that reinforce the impact our people, products and services can have on the world. It's indicative of the culture we continue to cultivate at Boeing, one of care for our teammates, our customers and humanity. It's what inspires us every day.

### Moving Forward, Together

Looking ahead, Boeing is focused on driving stability and making the right investments to ensure we are well-positioned for future growth. With safety at the forefront, our effort to stabilize our production system, including the supply chain, and improve our delivery predictability, remain important priorities as we continue to invest in our people, technology, manufacturing capabilities, and strategic partnerships.

The past several years have been challenging; however, they have made us stronger as a company and as an industry. We are part of a rich and proud legacy that drives us forward every day. With revitalized spirit and an unwavering commitment to transparency in all we do, we are transforming to be a better, stronger Boeing, propelled by the spirit of innovation that has been our hallmark for more than a century.

Thank you for your continued confidence in our company. It's my privilege to be on the Boeing team as we work with our customers and stakeholders to move forward, together.

David L. Calhoun  
President and CEO

# Each of us has a hand in our revitalization.

## Revolutionizing How We Operate



### Shaping Our Future

The Boeing T-7A Red Hawk team is revolutionizing the way aircraft are built at the St. Louis production facility. The team uses advanced digital design techniques and model-based engineering that have resulted in a vast improvement in quality. Boeing's Digital Transformation team is using lessons learned here and in other programs such as the MQ-25 to lead a shift that will allow the company to shape

the future of engineering and life-cycle support through model-based, connected design and data-driven support methodologies. The goal is to reinvent how to work across the entire Boeing value stream, leveraging a collaborative, digital environment where products and systems can be designed, tested, built and supported hundreds of times in the virtual world to ensure first-time quality and optimal readiness in the real world.

"Having worked on programs where I had to drill and countersink holes in airframes, I doubted whether assembling an aircraft with prefabricated sections would be precise enough to pass our rigorous quality inspections. I soon realized the quality has actually improved and it's not as demanding physically. I don't think we will ever go back to the old way of building aircraft."

**WILL HELTON**  
T-7A Aircraft Mechanic



# And everyone has a story to tell.

## Embracing Unique Perspectives

### Ambassadors for Compliance and Integrity

How we do our work is just as important as the work we do; the way for us to grow, increase our customers' confidence, and honor our company's legacy is by performing with integrity. That is why we launched an Ethics Ambassador Program. Our ambassadors are embedded within the business to foster a culture of compliance, amplify our values, listen to concerns, and elevate issues.

"I take pride in being a voice for our values and a trusted ear for my colleagues in helping to identify any emerging issues. When employees speak up, we improve as a company, and it is important to ensure everyone feels comfortable raising issues."

**CHRISTINE VASKO**  
Boeing Ethics Ambassador



### Diversity of Thought

Through the Confident Travel Initiative (CTI) we continued collaborating with airline customers, industry associations, academic and medical institutions, government agencies and worldwide policymakers as part of the global effort to provide passengers and crew a safe, healthy and efficient travel experience.

"Our Boeing team has been committed to sharing our CTI research to support the global effort to keep air travel passengers safe amidst challenges posed by COVID-19."

**DR. LINDSAY L. JONES**  
Associate Technical Fellow,  
Applied Mathematics



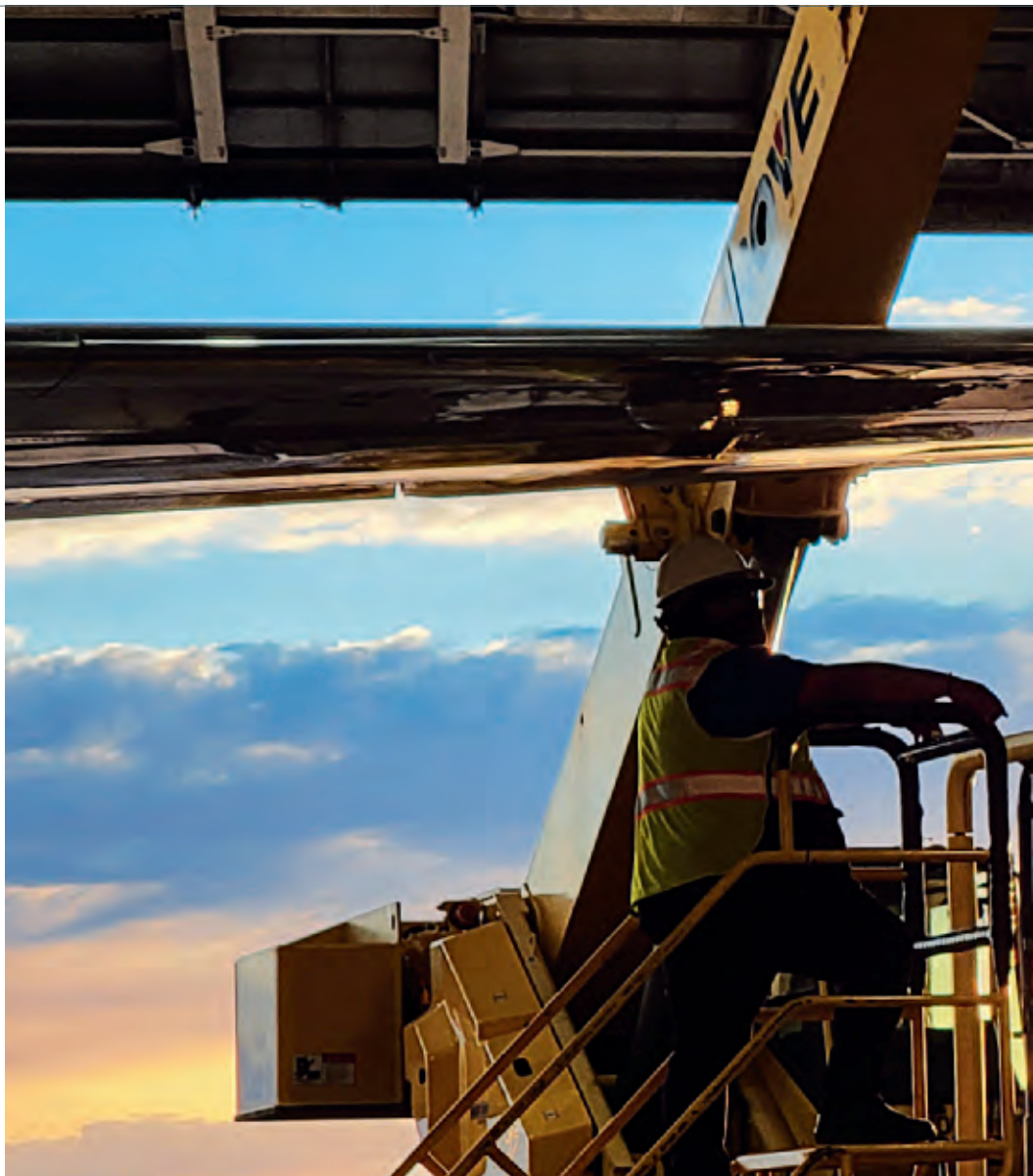
## Safely Returning to Service

### Maintaining and Servicing

Boeing employees, including the Winglet team in Moses Lake, Washington, have been putting in long hours to protect 737 airplanes in storage, prepare each airplane for customer delivery and support operators once their airplanes enter into service. The Customer Support team that has been at the forefront of the 737-8 and -9 return to service efforts, also provided proactive advice and solutions.

The Customer Support team also works around the clock, monitoring fleetwide performance, diagnosing issues, and providing solutions for airline customers from Operations Centers in Seal Beach, California, and Everett, Washington.

Spanning all aerospace engineering disciplines, the team has also assisted airline partners to resume and expand service as part of the recovery in the wake of the COVID-19 pandemic. The team's 24/7 presence allows Boeing to deliver world-class support and ensure that airlines and operators can safely and confidently operate their airplanes from across the commercial fleet.



### Collaborating With Regulators

Thanks to agile collaboration among Boeing teams and the Civil Aviation Administration of China, the 737 MAX completed the simulator and certification validation flight tests required to return to Chinese skies. The certification validation flight test was the first Boeing has ever conducted outside the U.S.

"What we achieved by bringing the flight test to China has all kinds of firsts and meaning for Boeing in so many ways."

**SHERRY CARBARY**  
President of Boeing China





### **United in Our Mission**

United Airlines announced an order to expand its fleet with 200 737 MAX jets, including 150 737-10 and 50 737-8 airplanes.

“We expect the addition of these new aircraft will have a significant economic impact on the communities we serve in terms of job creation, traveler spending, and the shipping of goods and services.”

**SCOTT KIRBY**  
United Airlines CEO





## Diversity in Action

### Reaching New Heights

In October 2021, a Boeing team successfully completed a regular developmental flight test of the company's 737-10 airplane. Yet this flight test was different from all the previously recorded ones before it: The Boeing colleagues who conducted this flight were all women.

"Everyone on board was responsible for safely executing, monitoring and analyzing test conditions, and each played a pivotal role. This is what is possible when you pay attention to diversity and inclusion."

#### JENNIFER HENDERSON

**Commercial Airplanes Production  
Chief Pilot and Pilot in Command  
of 737-10 Test Flight**



### Inclusion Makes Us Better

Our global team continues to advance equity, diversity and inclusion within Boeing and beyond. In 2021, we published our diversity metrics for the first time in Boeing's history, built inclusive habits called Seek, Speak & Listen, and furthered our equity strategy with the support of our Racial Equity Task Force.

Our ongoing commitment earned Boeing the No. 17 ranking on the 2021 DiversityInc Top 50 list, the Department of Labor's Hire Vets Platinum Medallion Award, a 100 score on the Human Rights Campaign Corporate Equality Index and more.

"Protecting, connecting and exploring our world requires a diverse team that embraces challenges to advance our mission. The Seek, Speak & Listen habits have taught us that our collective intelligence is so much greater than the sum of its parts. When we support each other, when we seek diverse perspectives and listen with curiosity, we achieve the unimaginable."

#### SARA BOWEN

**Vice President, Global Equity,  
Diversity & Inclusion**





## Sustainable Aerospace



*To learn more about sustainability initiatives at Boeing, scan the QR code with your smartphone.*

### Fueling Sustainable Air Travel

Minimizing aerospace's impact on our planet requires a multifaceted global approach and partnerships. Whether we are testing new technologies on the ecoDemonstrator program, ensuring we deliver commercial airplanes that are ready to fly on 100% sustainable aviation fuels by 2030, or finding more efficient ways for our commercial and defense customers to operate their fleets, we are committed to doing our

part to decarbonize global civil aviation operations by 2050.

"Strong partnerships are essential because advancing sustainability is a team sport and requires action collectively across the aviation value chain."

**VALENTINA VECCHIO**  
**Strategic Engagement & Execution Lead, Global Sustainability Policy & Partnerships**



### Future of Mobility

Wisk is an incredibly exciting technology venture that will pioneer one of the world's first zero-emissions, autonomous commercial aircraft and bring sustainable flight closer to home for millions of people around the world.

"Boeing's close partnership with Wisk is an opportunity to harness our vast engineering know-how combined with Wisk's innovative self-flying eVTOL technology to achieve this next giant leap in aviation, always leading with safety."

**BRIAN YUTKO**  
**Vice President and Chief Engineer, Sustainability and Future Mobility**



Courtesy: Wisk Aero



## Global Solutions for Global Needs



Images courtesy: U.S. Air Force

### Protecting Heroes and Saving Lives

As part of a contract with the U.S. Department of Defense, Boeing Global Services teams will continue to enable the C-17 Globemaster III's worldwide mission readiness, which includes critical sustainment in the field.

"The C-17 continues to serve as the strategic airlift workhorse for the nation, as evidenced by its impressive

performance in the recent airlift of more than 124,000 evacuees from Afghanistan in an around-the-clock operation. AMC looks forward to the continued partnership with our Boeing teammates as we work to keep the Globemaster fleet healthy for years to come."

**BRIG. GEN. DARREN COLE**  
**U.S. Air Force Air Mobility Command (AMC) Director of Logistics, Engineering and Force Protection**



Top: Civilians inside a C-17 Globemaster III, as the U.S. Air Force evacuated them from Kabul, Afghanistan, in August during one of the largest air evacuations of civilians in history. Bottom: A C-17 in flight.



### Converting to Meet a Need

Boeing logged record orders and commitments for Boeing converted freighters, which remain in high demand for vital supply chain operations and for express and e-commerce logistics. To meet

customer demand amid the COVID-19 pandemic, the program is expanding capacity at existing maintenance, repair and overhaul (MRO) supplier facilities in the Asia-Pacific region and is adding new conversion sites in the Americas and Boeing's own London Gatwick facility.

"At the end of the day, I look around and see packages being delivered and know that my work contributes to this with a versatile freighter that is serving routes across five continents."

**ANTHONY CHAU**  
Liaison Engineer, Flight Test and Modifications



### Enabling Critical Relief

In addition to a \$10 million assistance package for COVID-19 relief in India, Boeing worked with health care providers to support vaccination drives and find medical care for employees when hospital beds were in short supply.

"When I learned Boeing was helping build a COVID-19 field hospital in Bengaluru and in places that didn't have medical resources, I felt a weight lift off my shoulders. Seeing a piece of barren land transform into a fully equipped facility in less than a month was truly an example of how we can help our communities. My son proudly says now that his dad works for a company that builds aeroplanes and hospitals."

**JONAS PRASANNA**  
Senior HR Generalist, Boeing India



To learn more about our global engagement in 2021, scan the QR code with your smartphone.



## Driven by Purpose

### On a Mission to Protect

The Boeing Airpower Teaming System (ATS), also known as Loyal Wingman, is a first-of-its-kind uncrewed system designed to fly autonomously alongside crewed aircraft and perform a range of missions. Developed by Boeing Australia teams and the Royal Australian Air Force (RAAF), two aircraft completed first test flights in 2021.

“The close collaboration with the RAAF allows us to rapidly design and develop innovative solutions and digital engineering technologies.”

**SIMON JACOMBS**  
Engineering Manager, ATS



### STEM Career Connections

Boeing’s Soaring With Your Dream educational program in China continues to create meaningful STEM connections, training more than 120 teachers to reach students at more than 30 additional schools in 2021. Boeing volunteers used enhanced training systems to encourage teachers to embed STEM activities into their curriculum. The program received recognition at the 2021 CSR China Education Awards and also made the CSR China Top 100 list. The program is in place in more than 1,600 Chinese schools, with more than 3,700 teachers participating to date.



Courtesy: YquChange Foundation

### Committed to Explore

From the Space Launch System Artemis undertaking to return us to the moon, Starliner’s mission to transport crews to the International Space Station, and cutting-edge products and solutions being provided to the U.S. Space Force, Boeing is advancing a new chapter that underscores its commitment to human space exploration.

“We create space systems that connect and protect people globally and enable exploration of other worlds.”

**JIM CHILTON**  
Senior Vice President,  
Space and Launch



Courtesy: NASA/Frank Michaux



## Executive Council



**Stanley A. Deal**  
Executive Vice President;  
President and CEO, Boeing  
Commercial Airplanes



**Leanne G. Caret**  
Executive Vice President;  
President and CEO, Boeing  
Defense, Space & Security



**Theodore Colbert III**  
Executive Vice President;  
President and CEO, Boeing  
Global Services



**Brian J. West**  
Executive Vice President;  
Chief Financial Officer



**Gregory L. Hyslop**  
Chief Engineer; Executive  
Vice President, Engineering,  
Test & Technology



**Michael D'Ambrose**  
Chief Human Resources  
Officer; Executive Vice  
President, Human  
Resources



**Brett C. Gerry**  
Chief Legal Officer;  
Executive Vice President,  
Global Compliance



**Ziad Ojakli**  
Executive Vice President,  
Government Operations



**B. Marc Allen**  
Chief Strategy Officer;  
Senior Vice President,  
Strategy and Corporate  
Development



**Michael A. Arthur**  
Senior Vice President;  
President, Boeing  
International



**Edward L. Dandridge**  
Chief Communications  
Officer; Senior Vice  
President, Communications



**Susan Doniz**  
Chief Information Officer;  
Senior Vice President,  
Information Technology &  
Data Analytics



**Uma Amuluru**  
Chief Compliance Officer;  
Vice President, Global  
Compliance



**Michael Delaney**  
Chief Aerospace Safety  
Officer; Senior Vice  
President, Global  
Aerospace Safety



**David A. Dohnalek**  
Senior Vice President;  
Treasurer



**Chris Raymond**  
Chief Sustainability Officer;  
Vice President, Global  
Enterprise Sustainability



**William A. Ampofo II**  
Vice President;  
Chair, Supply Chain  
Operations Council



**Elizabeth Lund**  
Senior Vice President; Chair,  
Program Management  
Operations Council



**Carole A. Murray**  
Vice President; Chair,  
Quality Operations Council



**William H. Osborne**  
Senior Vice President;  
Chair, Manufacturing  
Operations Council

## Company Highlights

We made tremendous progress on the 737 MAX return to service effort, delivering 272 airplanes since the ungrounding in November 2020 and steadily increasing production. Our Global Services business is well positioned for growth. As cargo demand expands, we booked record orders for new and converted Boeing freighters. We also announced plans to add 10 additional converted freighter lines at new and existing MRO suppliers. In our defense and space business, we secured key orders and delivered on critical customer milestones.

Given our steadfast focus on safety, quality, integrity and sustainability, we are confident in our company's future and optimistic about the industry's recovery.

## PRODUCT AND SERVICES MILESTONES

### Boeing Commercial Airplanes

- Factory improvements in safety and quality
- Garnered more orders than competition, including in the 737 market segment
- 737-10 first flight
- 777X international debut at Dubai Airshow
- Made significant progress on 737 MAX return to service (185 countries clear operations; 720,000 flight-hours through end of 2021) and preparations for rate increase
- Successful ecoDemonstrator program in partnership with Alaska Airlines
- 787 final assembly consolidated to Boeing South Carolina

### Boeing Defense, Space & Security

- F-15EX Eagle II first flight and delivery
- T-7A Red Hawk production began
- Airpower Teaming System (Loyal Wingman) first flight
- MQ-25 became first uncrewed aircraft to refuel another aircraft
- Successfully conducted the Space Launch System Green Run hot fire test
- Boeing delivered Block III F/A-18 Super Hornet to U.S. Navy
- U.S. Air Force provided operational approval to KC-46 to refuel almost 70% of receiver aircraft, and completed first international delivery to Japan

### Boeing Global Services

- \$2 billion e-commerce parts milestone reached faster than ever before
- C-17 sustainment with U.S. Air Force extended up to \$23.8 billion
- Ground broken on new MRO facility in Jacksonville, Florida
- Announced plans to add 10 additional freighter conversion lines at new and existing MRO suppliers

## FINANCIAL OVERVIEW

U.S. dollars in millions, except per share data	2021	2020	2019	2018	2017
Revenues	62,286	58,158	76,559	101,127	94,005
(Loss)/earnings from operations	(2,902)	(12,767)	(1,975)	11,987	10,344
Diluted (loss)/earnings per share	(7.15)	(20.88)	(1.12)	17.85	13.85
Operating margins	(4.7%)	(22.0%)	(2.6%)	11.9%	11.0%
Core operating (loss)/earnings*	(4,075)	(14,150)	(3,390)	10,660	8,906
Core operating margins*	(6.5%)	(24.3%)	(4.4%)	10.5%	9.5%
Core (loss)/earnings per share*	(9.44)	(23.25)	(3.47)	16.01	12.33
Operating cash flow	(3,416)	(18,410)	(2,446)	15,322	13,346
Contractual backlog	356,362	339,309	436,473	462,070	456,984
Total backlog†	377,499	363,404	463,403	490,481	474,640

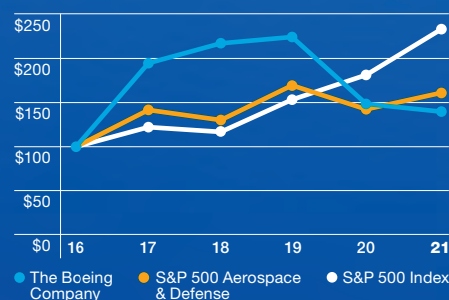
\* Non-GAAP measures. See Page 145.

† Total backlog includes contractual and unobligated backlog. See Page 31 of Form 10-K.

## COMPARISON OF CUMULATIVE\* FIVE-YEAR TOTAL SHAREHOLDER RETURNS

Company/Index	Base Period 2016	2017	2018	2019	2020	2021
Boeing	100	194.77	217.23	224.46	148.38	139.55
S&P 500 Aerospace & Defense	100	141.38	129.97	169.39	142.18	160.98
S&P 500 Index	100	121.83	116.49	153.17	181.35	233.41

\*Cumulative return assumes \$100 invested; includes reinvestment of dividends.







UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

**FORM 10-K**

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2021

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 1-442

**THE BOEING COMPANY**

(Exact name of registrant as specified in its charter)

**Delaware**

**91-0425694**

(State or other jurisdiction of  
incorporation or organization)

(I.R.S. Employer Identification No.)

**100 N. Riverside Plaza, Chicago, IL**

**60606-1596**

(Address of principal executive offices)

(Zip Code)

**Registrant's telephone number, including area code (312)-544-2000**

**Securities registered pursuant to Section 12(b) of the Act:**

Common Stock, \$5.00 Par Value

BA

New York Stock Exchange

(Title of each class)

(Trading Symbol)

(Name of each exchange on which registered)

**Securities registered pursuant to Section 12(g) of the Act: None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer ☒

Accelerated filer ☐

Non-accelerated filer ☐

Smaller reporting company ☐

Emerging growth company ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of June 30, 2021, there were 585,875,929 common shares outstanding held by nonaffiliates of the registrant, and the aggregate market value of the common shares (based upon the closing price of these shares on the New York Stock Exchange) was approximately \$140.4 billion.

The number of shares of the registrant's common stock outstanding as of January 24, 2022 was 582,999,765.

**DOCUMENTS INCORPORATED BY REFERENCE**

Part III incorporates information by reference to the registrant's definitive proxy statement, to be filed with the Securities and Exchange Commission within 120 days after the close of the fiscal year ended December 31, 2021.

**THE BOEING COMPANY**  
**Index to the Form 10-K**  
**For the Fiscal Year Ended December 31, 2021**

<b>PART I</b>	<b>Page</b>
Item 1. Business .....	1
Item 1A. Risk Factors .....	7
Item 1B. Unresolved Staff Comments .....	20
Item 2. Properties .....	21
Item 3. Legal Proceedings .....	21
Item 4. Mine Safety Disclosures .....	21
<b>PART II</b>	
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities .....	22
Item 6. [Reserved] .....	22
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations .....	23
Item 7A. Quantitative and Qualitative Disclosures About Market Risk .....	56
Item 8. Financial Statements and Supplementary Data .....	57
Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure .....	132
Item 9A. Controls and Procedures .....	132
Item 9B. Other Information .....	132
<b>PART III</b>	
Item 10. Directors, Executive Officers and Corporate Governance .....	133
Item 11. Executive Compensation .....	136
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters .....	137
Item 13. Certain Relationships and Related Transactions, and Director Independence .....	137
Item 14. Principal Accountant Fees and Services .....	138
<b>PART IV</b>	
Item 15. Exhibits, Financial Statement Schedules .....	138
Item 16. Form 10-K Summary .....	141
Signatures .....	142



## **PART I**

### **Item 1. Business**

The Boeing Company, together with its subsidiaries (herein referred to as “Boeing,” the “Company,” “we,” “us,” “our”), is one of the world’s major aerospace firms.

We are organized based on the products and services we offer. We operate in four reportable segments:

- Commercial Airplanes (BCA);
- Defense, Space & Security (BDS);
- Global Services (BGS);
- Boeing Capital (BCC).

#### **Commercial Airplanes Segment**

This segment develops, produces and markets commercial jet aircraft and provides fleet support services, principally to the commercial airline industry worldwide. We are a leading producer of commercial aircraft and offer a family of commercial jetliners designed to meet a broad spectrum of global passenger and cargo requirements of airlines. This family of commercial jet aircraft in production includes the 737 narrow-body model and the 747, 767, 777 and 787 wide-body models. Development continues on the 777X program and certain 737 MAX derivatives.

#### **Defense, Space & Security Segment**

This segment engages in the research, development, production and modification of manned and unmanned military aircraft and weapons systems for strike, surveillance and mobility, including fighter and trainer aircraft; vertical lift, including rotorcraft and tilt-rotor aircraft; and commercial derivative aircraft, including anti-submarine and tanker aircraft. In addition, this segment engages in the research, development, production and modification of the following products and related services: strategic defense and intelligence systems, including strategic missile and defense systems, command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR), cyber and information solutions, and intelligence systems, satellite systems, including government and commercial satellites and space exploration.

BDS' primary customer is the United States Department of Defense (U.S. DoD). Revenues from the U.S. DoD, including foreign military sales through the U.S. government, accounted for approximately 84% of its 2021 revenues. Other significant BDS customers include the National Aeronautics and Space Administration (NASA) and customers in international defense, civil and commercial satellite markets.

This segment's primary products include the following fixed-wing military aircraft: F/A-18E/F Super Hornet, F-15 programs, P-8 programs, KC-46A Tanker and T-7A Red Hawk. This segment produces rotorcraft and rotary-wing programs, such as CH-47 Chinook, AH-64 Apache and V-22 Osprey. Unmanned vehicles include the MQ-25, QF-16 and Insitu's Scan Eagle aircraft. In addition, this segment's products include space and missile systems including: government and commercial satellites, NASA's Space Launch System (SLS), the International Space Station, Commercial Crew, missile defense and weapons programs and Joint Direct Attack Munition, as well as the United Launch Alliance joint venture.

## **Global Services Segment**

This segment provides services to our commercial and defense customers worldwide. BGS sustains aerospace platforms and systems with a full spectrum of products and services, including supply chain and logistics management, engineering, maintenance and modifications, upgrades and conversions, spare parts, pilot and maintenance training systems and services, technical and maintenance documents, and data analytics and digital services.

## **Boeing Capital Segment**

BCC seeks to ensure that Boeing customers have the financing they need to buy and take delivery of their Boeing product, while managing overall financing exposure. BCC's portfolio consists of equipment under operating leases, sales-type/finance leases, notes and other receivables, assets held for sale or re-lease and investments.

## **Intellectual Property**

We own numerous patents and have licenses for the use of patents owned by others, which relate to our products and their manufacture. In addition to owning a large portfolio of intellectual property, we also license intellectual property to and from third parties. For example, the U.S. government has licenses in our patents that are developed in performance of government contracts, and it may use or authorize others to use the inventions covered by such patents for government purposes. Unpatented research, development and engineering skills, as well as certain trademarks, trade secrets and other intellectual property rights, also make an important contribution to our business. While our intellectual property rights in the aggregate are important to the operation of each of our businesses, we do not believe that our business would be materially affected by the expiration of any particular intellectual property right or termination of any particular intellectual property patent license agreement.

## **Human Capital**

The COVID-19 pandemic continues to impact lives and businesses around the world. We have taken proactive steps to help protect the health and safety of our employees and maintain business continuity. As COVID-19 vaccines became available, we strongly encouraged employees to get vaccinated when eligible, followed federal and state government vaccination requirements, provided resources and support to help employees get vaccinated, offered paid time off for primary and booster vaccinations, and supported vaccination clinics for our employees and their families. We provided access to virtual primary care physicians at no cost. We expanded our virtual work options and many of our office workers continue to telecommute. We have maintained safety protocols at our sites, including face coverings, physical distance requirements and enhanced cleaning requirements. We continue to encourage daily self-health checks and operate our coronavirus hotline, which enables employees to report exposure to COVID-19 and positive COVID-19 test results directly to our Health Services group. As part of that reporting process, we have a robust contact tracing program to identify those who have been in close contact in the workplace with employees who have tested positive for COVID-19. All of the actions above are overseen by Boeing's Crisis Management Working Group, a multi-functional, multi-discipline team tasked with integrating all aspects of Boeing's COVID-19 response.

As of December 31, 2021, Boeing's total workforce was approximately 142,000, with 12% located outside of the U.S.



As of December 31, 2021, our workforce is composed of approximately 47,000 union members. Our principal collective bargaining agreements were with the following unions:

Union	Percent of our Employees Represented	Status of the Agreements with Major Union
The International Association of Machinists and Aerospace Workers (IAM)	20%	We have two major agreements; one expiring in July 2022 and one in September 2024.
The Society of Professional Engineering Employees in Aerospace (SPEEA)	10%	We have two major agreements expiring in October 2026.
The United Automobile, Aerospace and Agricultural Implement Workers of America (UAW)	1%	We have one major agreement expiring in October 2022.

We aspire to be the most equitable, diverse and inclusive company. Guided by our values, we are committed to creating a company where everyone is included and respected, and where we support each other in reaching our full potential. We are committed to diverse representation across all levels of our workforce to reflect the vibrant and thriving diversity of the communities in which we live and work. In June of 2021, we released our first Global Equity, Diversity and Inclusion report with our workforce composition. As of December 2020, our U.S. workforce was comprised of approximately 23% women, 31% racial and ethnic minorities and 15% veterans. We also support Business Resource Groups open to all employees with more than 13,000 participants across 150 chapters globally that focus on gender, race & ethnicity, generations, gender identity, sexual orientation, disability or veteran status. These groups help foster inclusion among all teammates, build awareness, recruit and retain a diverse workforce and support the company in successfully operating in a global, multicultural business environment. We are committed to releasing a Global Equity, Diversity and Inclusion report in 2022 which will be updated with 2021 information. Our 2021 report can be found on our website.

To attract and retain the best-qualified talent, we offer competitive benefits, including market-competitive compensation, healthcare, paid time off, parental leave, retirement benefits, tuition assistance, employee skills development, leadership development and rotation programs. In 2021, our voluntary resignation rate was approximately 4%. Additionally, we hired approximately 9,800 new employees in 2021 for critical skills and had an offer acceptance rate of 83%.

Employees are encouraged to provide feedback about their experience through ongoing employee engagement activities. Boeing actively listens to its employees via surveys ranging from pre-hire to exiting the company. These voluntary surveys provide aggregate trend reports for the company to address in real time and ensure Boeing maintains an employee-focused experience and culture. We also invest in rewarding performance and have established a multi-level recognition program for the purpose of acknowledging the achievements of excellent individual or team performance.

We are committed to supporting our employees' continuous development of professional, technical and leadership skills through access to digital learning resources and through partnerships with leading professional/technical societies and organizations around the world. For 2021, Boeing employees consumed approximately 3.6 million hours of learning. We offer the ability for our people to pursue degree programs, professional certificates and individual courses in strategic fields of study from more than 300 accredited colleges and universities, online and across the globe through our tuition assistance program. Over 10,000 Boeing employees leverage these programs every year.

Safety, quality, integrity and sustainability are at the core of how Boeing operates. We aspire to achieve zero workplace injuries and provide a safe, open and accountable work environment for our employees. We provide several channels for all employees to speak up, ask for guidance and report concerns related to ethics or safety violations. We address employee concerns and take appropriate actions that uphold our Boeing values.

## **Competition**

The commercial jet aircraft market and the airline industry remain extremely competitive. We face aggressive international competitors who are intent on increasing their market share, such as Airbus and other entrants from Russia, China and Japan. We are focused on improving our processes and continuing cost reduction efforts. We intend to continue to compete with other airplane manufacturers by providing customers with higher quality products.

BDS faces strong competition in all market segments, primarily from Lockheed Martin Corporation, Northrop Grumman Corporation, Raytheon Technologies Corporation, General Dynamics Corporation and SpaceX. Non-U.S. companies such as BAE Systems and Airbus Group continue to build a strategic presence in the U.S. market by strengthening their North American operations and partnering with U.S. defense companies. In addition, certain competitors have occasionally formed teams with other competitors to address specific customer requirements. BDS expects the trend of strong competition to continue into 2022.

The commercial and defense services markets are extremely challenging and are made up of many of the same strong U.S. and non-U.S. competitors facing BCA and BDS along with other competitors in those markets. BGS leverages our extensive services network offering products and services which span the life cycle of our defense and commercial airplane programs: training, fleet services and logistics, maintenance and engineering, modifications and upgrades, as well as the daily cycle of gate-to-gate operations. BGS expects the market to remain highly competitive in 2022, and intends to grow market share by leveraging a high level of customer satisfaction and productivity.

## **Regulatory Matters**

Our businesses are heavily regulated in most of our markets. We work with numerous U.S. government agencies and entities, including but not limited to, all of the branches of the U.S. military, NASA, the Federal Aviation Administration (FAA) and the Department of Homeland Security. Similar government authorities exist in our non-U.S. markets.

*Government Contracts.* The U.S. government, and other governments, may terminate any of our government contracts at their convenience, as well as for default based on our failure to meet specified performance requirements. If any of our U.S. government contracts were to be terminated for convenience, we generally would be entitled to receive payment for work completed and allowable termination or cancellation costs. If any of our government contracts were to be terminated for default, generally the U.S. government would pay only for the work that has been accepted and could require us to pay the difference between the original contract price and the cost to re-procure the contract items, net of the work accepted from the original contract. The U.S. government can also hold us liable for damages resulting from the default.

*Commercial Aircraft.* In the U.S., our commercial aircraft products are required to comply with FAA regulations governing production and quality systems, airworthiness and installation approvals, repair procedures and continuing operational safety. New aircraft models and new derivative aircraft are required to obtain FAA certification prior to entry into service. Outside the U.S., similar requirements exist for airworthiness, installation and operational approvals. These requirements are generally



administered by the national aviation authorities of each country and, in the case of Europe, coordinated by the European Union Aviation Safety Agency.

*Environmental.* We are subject to various federal, state, local and non-U.S. laws and regulations relating to environmental protection, including the discharge, treatment, storage, disposal and remediation of hazardous substances and wastes. We could also be affected by future laws and regulations relating to climate change, including laws related to greenhouse gas emissions. These laws and regulations could lead to increased environmental compliance expenditures, increased energy and raw materials costs and new and/or additional investment in designs and technologies. We continually assess our compliance status and management of environmental matters to ensure our operations are in compliance with all applicable environmental laws and regulations. Investigation, remediation and operation and maintenance costs associated with environmental compliance and management of sites are a normal, recurring part of our operations. These costs often are allowable costs under our contracts with the U.S. government. It is reasonably possible that costs incurred to ensure continued environmental compliance could have a material impact on our results of operations, financial condition or cash flows if additional work requirements or more stringent clean-up standards are imposed by regulators, new areas of soil, air and groundwater contamination are discovered and/or expansions of work scope are prompted by the results of investigations.

A Potentially Responsible Party (PRP) has joint and several liability under existing U.S. environmental laws. Where we have been designated a PRP by the Environmental Protection Agency or a state environmental agency, we are potentially liable to the government or third parties for the full cost of remediating contamination at our facilities, former facilities or third-party sites. If we were required to fully fund the remediation of a site for which we were originally assigned a partial share, the statutory framework would allow us to pursue rights to contribution from other PRPs. For additional information relating to environmental contingencies, see Note 13 to our Consolidated Financial Statements.

*Non-U.S. Sales.* Our non-U.S. sales are subject to both U.S. and non-U.S. governmental regulations and procurement policies and practices, including regulations relating to import-export control, tariffs, investment, exchange controls, anti-corruption and repatriation of earnings. Non-U.S. sales are also subject to varying currency, political and economic risks.

### **Raw Materials, Parts and Subassemblies**

We are highly dependent on the availability of essential materials, parts and subassemblies from our suppliers and subcontractors. The most important raw materials required for our aerospace products are aluminum (sheet, plate, forgings and extrusions), titanium (sheet, plate, forgings and extrusions) and composites (including carbon and boron). Although alternative sources generally exist for these raw materials, qualification of the sources could take a year or more. Many major components and product equipment items are procured or subcontracted on a sole-source basis.

### **Suppliers**

We are dependent upon the ability of a large number of U.S. and non-U.S. suppliers and subcontractors to meet performance specifications, quality standards and delivery schedules at our anticipated costs. While we maintain an extensive qualification and performance surveillance system to control risk associated with such reliance on third parties, failure of suppliers or subcontractors to meet commitments could adversely affect production schedules and program/contract profitability, thereby jeopardizing our ability to fulfill commitments to our customers. We are also dependent on the availability of energy sources, such as electricity, at affordable prices.

## **Seasonality**

No material portion of our business is considered to be seasonal.

## **Executive Officers of the Registrant**

See “Item 10. Directors, Executive Officers and Corporate Governance” in Part III.

## **Other Information**

Boeing was originally incorporated in the State of Washington in 1916 and reincorporated in Delaware in 1934. Our principal executive offices are located at 100 N. Riverside Plaza, Chicago, Illinois 60606, and our telephone number is (312) 544-2000.

General information about us can be found at [www.boeing.com](http://www.boeing.com). The information contained on or connected to our website is not incorporated by reference into this Annual Report on Form 10-K and should not be considered part of this or any other report filed with the Securities and Exchange Commission (SEC). Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as any amendments to those reports, are available free of charge through our website as soon as reasonably practicable after we file them with, or furnish them to, the SEC. The SEC maintains a website at [www.sec.gov](http://www.sec.gov) that contains reports, proxy statements and other information regarding SEC registrants, including Boeing.

## **Forward-Looking Statements**

This report, as well as our annual report to shareholders, quarterly reports and other filings we make with the SEC, press and earnings releases and other written and oral communications, contain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “may,” “should,” “expects,” “intends,” “projects,” “plans,” “believes,” “estimates,” “targets,” “anticipates” and similar expressions generally identify these forward-looking statements. Examples of forward-looking statements include statements relating to our future financial condition and operating results, as well as any other statement that does not directly relate to any historical or current fact.

Forward-looking statements are based on expectations and assumptions that we believe to be reasonable when made, but that may not prove to be accurate. These statements are not guarantees and are subject to risks, uncertainties and changes in circumstances that are difficult to predict. Many factors, including those set forth in the “Risk Factors” section below and other important factors disclosed in this report and from time to time in our other filings with the SEC, could cause actual results to differ materially and adversely from these forward-looking statements. Any forward-looking statement speaks only as of the date on which it is made, and we assume no obligation to update or revise any forward-looking statement whether as a result of new information, future events or otherwise, except as required by law.



## Item 1A. Risk Factors

An investment in our common stock or debt securities involves risks and uncertainties and our actual results and future trends may differ materially from our past or projected future performance. We urge investors to consider carefully the risk factors described below in evaluating the information contained in this report.

### Risks Related to COVID-19

***We face significant risks related to the spread of the COVID-19 virus and developments surrounding the global pandemic have had, and will continue to have, significant effects on our business, financial condition, results of operations and cash flows. We also face significant risks related to the global economic downturn and severe reduction in commercial air traffic caused by the pandemic. These risks include materially reduced demand for our products and services, increased instability in our operations and in our supply chain and challenges to the ongoing viability of some of our customers. In addition, future vaccination mandates or other government requirements may further disrupt our operations and those of our customers and suppliers. We may face similar risks in connection with any future public health crises, including resurgences in the spread of COVID-19.***

The COVID-19 pandemic has subjected our business, operations, financial performance, cash flows and financial condition to a number of risks, including, but not limited to those discussed below.

***Operations-related risks:*** As a result of the COVID-19 pandemic, we are facing increased operational challenges from the need to protect employee health and safety. These challenges have included, and may in the future include, production site shutdowns, workplace disruptions and restrictions on the movement of people, social distancing guidelines, increased employee absenteeism due to illness and/or quarantine/contact tracing requirements, as well as reduced availability of raw materials and goods, both at our own facilities and those of our customers and suppliers.

During the second quarter of 2020, we temporarily suspended operations in Puget Sound, South Carolina, and Philadelphia, as well as at several other key production sites. We had not previously experienced a complete suspension of our operations at these production sites. While we have resumed operations at all of our production sites, we cannot predict whether or where further production disruptions could be required or what the ongoing impact of COVID-19-related operating restrictions will be. For example, we continue to experience near-term production disruptions and inefficiencies as well as additional operating costs due to social distancing requirements, increased levels of employee absenteeism and other factors related to COVID-19 restrictions. We cannot predict the impact that future production disruptions may have on our business, operations, financial performance and financial condition. We continue to monitor federal, state and municipal health authorities for new or modified guidance and requirements concerning the COVID-19 pandemic, and we may be required to impose additional operational restrictions and/or suspend operations at key production sites based on these requirements and recommendations and/or workplace disruptions caused by COVID-19. If future vaccination mandates or other similar governmental requirements take effect, or if COVID-19 case rates worsen at one or more of our production facilities, we may face further increases in employee absenteeism and/or attrition, any of which could cause operational disruptions and otherwise have an adverse effect on our business and results of operations.

Many of our suppliers also were required to suspend operations during the second quarter of 2020. In 2021, we experienced part shortages which disrupted our operations and delayed deliveries. We may experience additional disruptions and/or part shortages in 2022. Any such disruptions could have severe adverse impacts on our production costs, delivery schedule and/or ability to meet customer commitments.

Further production disruptions and inefficiencies, suspension of operations or delayed recovery in our operations, and/or any comparable impacts involving one or more of our key suppliers, or the failure of any of our key suppliers, would result in further challenges to our business, which could have a further material adverse effect on our business, financial position, results of operations and/or cash flows.

**Liquidity risks:** The COVID-19 pandemic has also had a significant impact on our liquidity and overall debt levels. During the year ended December 31, 2021, net cash used by operating activities was \$3.4 billion. At December 31, 2021, cash and short-term investments totaled \$16.2 billion. Our debt balance totaled \$58.1 billion at December 31, 2021, down from \$63.6 billion at December 31, 2020. We expect negative operating cash flows in future quarters until deliveries begin to return to historical levels, and if the pace and scope of the recovery are worse than we currently contemplate, we may need to obtain additional financing in order to fund our operations and obligations. If we were to need to obtain additional financing, uncertainty related to COVID-19 and its impact on us and the aerospace industry, as well as continued uncertainty with respect to our credit rating could limit our access to credit markets and we may have difficulty obtaining financing on terms acceptable to us or at all. In addition, certain of our customers may also be unable to make timely payments to us. Factors that could limit our access to additional liquidity include further disruptions in the global capital markets and/or additional declines in our financial performance, outlook or credit ratings. The occurrence of any or all of these events could adversely affect our ability to fund our operations and/or meet outstanding debt obligations and contractual commitments. In addition, further downgrades in our credit ratings could adversely affect our cost of funds and related margins, liquidity, competitive position and access to capital markets, and a significant downgrade could have an adverse impact on our businesses.

**Customer-related risks:** Commercial air traffic has fallen dramatically due to the COVID-19 pandemic. This trend has impacted passenger traffic most severely. Most airlines have significantly reduced their capacity, and many could implement further reductions. Many airlines are also implementing significant reductions in staffing. These capacity changes are causing, and are expected to continue to cause, negative impacts to our customers' revenue, earnings, and cash flow, and in some cases may threaten the future viability of some of our customers, potentially causing defaults within our customer financing portfolio, which was \$1.8 billion as of December 31, 2021 and/or requiring us to remarket aircraft that have already been produced and/or are currently in backlog. If we are unable to successfully remarket these aircraft and/or the narrow-body and wide-body markets do not recover as soon as we are currently assuming, or if we are required to further reduce production rates and/or contract the accounting quantity on any of our commercial programs, we could experience material reductions in earnings and/or be required to recognize a reach-forward loss on one or more of our programs. For example, in the fourth quarter of 2020, we recognized a reach-forward loss on the 777X program in part due to impacts related to the COVID-19 pandemic. Additionally, we may experience fewer new orders and increased cancellations across all of our commercial airplane programs as a result of the COVID-19 pandemic and associated impacts on demand. Our customers may also lack sufficient liquidity to purchase new aircraft due to impacts from the pandemic.

In addition to the near-term impact, there is risk that the industry implements longer-term strategies involving reduced capacity, shifting route patterns and mitigation strategies related to impacts from COVID-19 and the risk of future public health crises. In addition, airlines may experience reduced demand due to reluctance by the flying public to travel as a result of travel restrictions and/or social distancing requirements.

As a result, there is significant uncertainty with respect to whether and at what point commercial air traffic capacity will return to and/or exceed pre-COVID-19 levels. This uncertainty may have a significant impact on the demand for both single-aisle and wide-body commercial aircraft, as well as for the services we provide to commercial airlines. In addition, a lengthy period of reduced industry-wide demand for commercial aircraft would put additional pressure on our suppliers, resulting in increased procurement costs and/or additional supply chain disruption. To the extent that the COVID-19 pandemic



or its aftermath further impacts demand for our products and services or impairs the viability of some of our customers and/or suppliers, our financial position, results of operations and/or cash flows could be adversely affected, and those impacts could be material.

**Other risks:** The magnitude and duration of the global COVID-19 pandemic is uncertain and continues to adversely affect our business and operating and financial results. For example, during the fourth quarter of 2020, due in part to the prolonged adverse impact of the pandemic on our earnings, we recorded an increase of \$2.5 billion to the valuation allowance associated with deferred income tax assets. The pandemic also is expected to heighten many of the other risks described below. For example, the COVID-19 pandemic could cause and continue to cause an increasingly competitive labor market due to a sustained labor shortage or increased turnover rates within our employee base. Further, the COVID-19 pandemic may also affect our operating and financial results in a manner that is not presently known to us or that we currently do not expect to present significant risks to our operations or financial results.

### **Risks Related to Our Business and Operations**

***We remain subject to a number of risks and uncertainties related to the 737 MAX. These risks include uncertainties regarding the timing and conditions of remaining 737 MAX regulatory approvals, lower than planned production rates and/or delivery rates, additional considerations to customers, increased supplier costs and supply chain health, changes to the assumptions and estimates made in our financial statements regarding the 737 program and potential outcomes of 737 MAX-related legal proceedings and government investigations that remain outstanding.***

On March 13, 2019, the FAA issued an order to suspend operations of all 737 MAX aircraft in the U.S. and by U.S. aircraft operators following two fatal 737 MAX accidents. Non-U.S. civil aviation authorities issued directives to the same effect. Deliveries of the 737 MAX were suspended until December 2020. The grounding reduced revenues, operating margins and cash flows, and will continue to do so until production rates return to pre-grounding levels. While we have received regulatory approval to return the 737 MAX to service in most jurisdictions, we continue to work with certain non-U.S. civil aviation authorities to complete remaining steps toward certification and readiness for return to service worldwide. Any delays in the completion of the certification activities and/or the ramp-up of deliveries or other liabilities associated with the accidents or grounding could have a material adverse effect on our financial position, results of operations and/or cash flows. In addition, multiple legal actions have been filed against us related to the 737 MAX. We also are fully cooperating with U.S. government investigations related to the accidents and the 737 MAX, including an ongoing investigation by the Securities and Exchange Commission. We also remain subject to compliance with a Deferred Prosecution Agreement with the U.S. Department of Justice relating to the Department of Justice's investigation into us regarding the evaluation of the 737 MAX airplane by the FAA. We expensed \$744 million in the fourth quarter of 2020 related to this agreement. Any further adverse impacts related to any such litigation or investigations could have a further material impact on our financial position, results of operations and/or cash flows.

During 2019, we announced plans to reduce, and ultimately to suspend 737 production. Impacts related to our suspension of 737 MAX production from 2019 to 2020 significantly increased costs to produce aircraft included in the current accounting quantity and have resulted in reduced 737 program and overall BCA segment operating margins. We have also made significant assumptions regarding estimated costs expected to be incurred in 2022 that should be included in program inventory and those estimated costs that will be expensed when incurred as abnormal production costs. If the completion of remaining certification activities and/or our ability to deliver 737 aircraft to customers is impaired, we will incur significant additional costs and/or be required to delay the planned ramp-up of 737 production. These delays would also result in significant additional disruption to the 737 production system and

further delay efforts to restore and/or implement previously planned increases in the 737 production rate. Cash flows continue to be negatively impacted by delayed payments from customers, higher costs and inventory levels, and payments made to customers in connection with disruption to their operations. In addition, we have experienced claims and assertions from customers in connection with the grounding and associated delivery delays, and recorded an estimate of potential concessions and other considerations to customers for these disruptions. As of December 31, 2021, the remaining liability associated with these concessions and other considerations totaled \$2.9 billion, of which \$0.7 billion remains subject to negotiation.

Any further delays in regulatory approval of the 737 MAX in one or more jurisdictions, further disruptions to suppliers and/or the long-term health of the production system, supplier claims or assertions, or changes to estimated concessions or other considerations we expect to provide to customers could have a material adverse effect on our financial position, results of operations and/or cash flows. In the event of unanticipated additional training requirements in one or more jurisdictions, delays in regulatory approval and/or delays in our ability to resume deliveries to one or more customers, we may be required to take actions with longer-term impact, such as further changes to our production plans, employment reductions and/or the expenditure of significant resources to support our supply chain and/or customers.

We have made significant estimates with respect to the 737 program regarding the number of units to be produced, the period during which those units are likely to be produced, and the units' expected sales prices, production costs, program tooling and other non-recurring costs, and routine warranty costs. We have made assumptions regarding outcomes of accident investigations and other government inquiries, timing of future 737 production rate increases, timing and sequence of future deliveries, supply chain health as we implement our production plans, as well as outcomes of negotiations with customers. Any changes in these estimates and/or assumptions with respect to the 737 program could have a material impact on our financial position, results of operations and/or cash flows.

***In addition to the impact of COVID-19 described above, our Commercial Airplanes and Global Services businesses depend heavily on commercial airlines, and are subject to unique risks.***

*Market conditions have a significant impact on demand for our commercial aircraft and related services.* The commercial aircraft market is predominantly driven by long-term trends in airline passenger and cargo traffic. The principal factors underlying long-term traffic growth are sustained economic growth and political stability both in developed and emerging markets. Demand for our commercial aircraft is further influenced by airline profitability, availability of aircraft financing, world trade policies, government-to-government relations, technological advances, price and other competitive factors, fuel prices, terrorism, epidemics and environmental regulations. Traditionally, the airline industry has been cyclical and very competitive and has experienced significant profit swings and constant challenges to be more cost competitive. Significant deterioration in the global economic environment, the airline industry generally or the financial stability of one or more of our major customers could result in fewer new orders for aircraft or services, or could cause customers to seek to postpone or cancel contractual orders and/or payments to us, which could result in lower revenues, profitability and cash flows and a reduction in our contractual backlog. In addition, because our commercial aircraft backlog consists of aircraft scheduled for delivery over a period of several years, any of these macroeconomic, industry or customer impacts could unexpectedly affect deliveries over a long period.

*We enter into firm fixed-price aircraft sales contracts with indexed price escalation clauses, which could subject us to losses if we have cost overruns or if increases in our costs exceed the applicable escalation rate.* Commercial aircraft sales contracts are often entered into years before the aircraft are delivered. In order to help account for economic fluctuations between the contract date and delivery date, aircraft pricing generally consists of a fixed amount as modified by price escalation formulas



derived from labor, commodity and other price indices. Our revenue estimates are based on current expectations with respect to these escalation formulas, but the actual escalation amounts are outside of our control. Escalation factors can fluctuate significantly from period to period. Changes in escalation amounts can significantly impact revenues and operating margins in our Commercial Airplanes business.

*We derive a significant portion of our revenues from a limited number of commercial airlines. We can make no assurance that any customer will exercise purchase options, fulfill existing purchase commitments or purchase additional products or services from us. In addition, fleet decisions, airline consolidations or financial challenges involving any of our major commercial airline customers could significantly reduce our revenues and limit our opportunity to generate profits from those customers.*

***Our Commercial Airplanes business depends on our ability to maintain a healthy production system, ensure every airplane in our production system conforms to our exacting specification, achieve planned production rate targets, successfully develop new aircraft or new derivative aircraft, and meet or exceed stringent performance and reliability standards.***

The commercial aircraft business is extremely complex, involving extensive coordination and integration with U.S and non-U.S. suppliers, highly-skilled labor from thousands of employees and other partners, and stringent regulatory requirements, including the risk of evolving standards for commercial aircraft certification, and performance and reliability standards. The FAA has been working to implement safety reforms such as the implementation of the 2018 FAA Reauthorization Act and the 2020 Aircraft Certification, Safety and Accountability Act, among them changing the process for certification of commercial aircraft. Comparable agencies that regulate similar matters in other countries may adopt similar changes. To the extent the FAA or other similar regulatory agencies outside the U.S. implement more stringent regulations, we may incur additional costs to achieve compliance. In addition, the introduction of new aircraft programs and/or derivatives, such as the 777X, involves increased risks associated with meeting development, testing, production and certification schedules. The 737 program experienced significant disruption due to the grounding of the 737 MAX and associated suspension of commercial operations of the 737 MAX aircraft by civil aviation authorities around the globe. 737 MAX deliveries resumed in late 2020 and early 2021 upon approval of the FAA and other non-U.S. civil aviation authorities. During 2020 and 2021, we experienced production quality issues, including in our supply chain, which have contributed to lower 787 deliveries, including a pause in 787 deliveries since May 2021. During 2021, this resulted in reprioritizing production resources to support inspections and rework. We continue to conduct inspections and rework on undelivered 787 aircraft and engage in detailed discussions with the FAA regarding required actions for resuming delivery. A number of our customers may have contractual remedies, including compensation for late deliveries as well as rights to reject individual airplane deliveries if the actual delivery date is significantly later than the contractual delivery date. The regulators will ultimately determine the timing and conditions for resuming 787 deliveries. Delays on the 737 MAX, 777X and 787 programs have resulted in, and may continue to result in, customers having the right to terminate orders and/or substitute orders for other Boeing aircraft.

*We must minimize disruption caused by production changes, achieve operational stability and implement productivity improvements in order to meet customer demand and maintain our profitability.* We have previously announced plans to adjust production rates on several of our commercial aircraft programs. During 2021, we reprioritized production resources to support inspections and rework on undelivered 787 aircraft. The 787 program is currently producing at very low rates and expects that to continue until deliveries resume. We are also continuing to implement changes in the production process designed to ensure that newly-built airplanes meet our specifications and do not require further inspections and rework. In addition, we continue to seek opportunities to reduce the costs of building our aircraft, including working with our suppliers to reduce supplier costs, identifying and implementing productivity improvements and optimizing how we manage inventory. If production rate changes at any

of our commercial aircraft assembly facilities are delayed or create significant disruption to our production system, or if our suppliers cannot timely deliver components to us at the cost and rates necessary to achieve our targets, we may be unable to meet delivery schedules and/or the financial performance of one or more of our programs may suffer.

*Operational challenges impacting the production system for one or more of our commercial aircraft programs could result in production delays and/or failure to meet customer demand for new aircraft, either of which would negatively impact our revenues and operating margins.* Our commercial aircraft production system is extremely complex. Operational issues, including delays or defects in supplier components, failure to meet internal performance plans, or delays or failures to achieve required regulatory approval, could result in significant out-of-sequence work and increased production costs, as well as delayed deliveries to customers, impacts to aircraft performance and/or increased warranty or fleet support costs. For example, in 2021, we performed additional inspections and associated rework on 787 aircraft in inventory and continued discussions with the FAA regarding required actions to resume deliveries, resulting in additional costs and further delays in aircraft deliveries to customers.

*If our commercial airplanes fail to satisfy performance and reliability requirements, we could face additional costs and/or lower revenues.* Developing and manufacturing commercial aircraft that meet or exceed our performance and reliability standards, as well as those of customers and regulatory agencies, can be costly and technologically challenging. These challenges are particularly significant with newer aircraft programs. Any failure of any Boeing aircraft to satisfy performance or reliability requirements could result in disruption to our operations, higher costs and/or lower revenues.

***Changes in levels of U.S. government defense spending or overall acquisition priorities could negatively impact our financial position and results of operations.***

We derive a substantial portion of our revenue from the U.S. government, primarily from defense related programs with the U.S. DoD. Levels of U.S. defense spending are very difficult to predict and may be impacted by numerous factors such as the evolving nature of the national security threat environment, U.S. national security strategy, U.S. foreign policy, the domestic political environment, macroeconomic conditions and the ability of the U.S. government to enact relevant legislation such as authorization and appropriations bills.

The timeliness of FY22 and future appropriations for government departments and agencies remains a recurrent risk. A lapse in appropriations for government departments or agencies would result in a full or partial government shutdown, which could impact the Company's operations. Alternatively, Congress may fund government departments and agencies with one or more Continuing Resolutions; however, this would restrict the execution of certain program activities and delay new programs or competitions. In addition, long-term uncertainty remains with respect to overall levels of defense spending in FY22 and beyond, and it is likely that U.S. government discretionary spending, including defense spending, will continue to be subject to pressure.

There continues to be uncertainty with respect to future acquisition priorities and program-level appropriations for the U.S. DoD and other government agencies (including NASA), including changes to national security and defense priorities, and tension between modernization investments, sustainment investments, and investments in new technologies or emergent capabilities. Future investment priority changes or budget cuts, including changes associated with the authorizations and appropriations process, could result in reductions, cancellations, and/or delays of existing contracts or programs, or future program opportunities. Any of these impacts could have a material effect on the results of the Company's financial position, results of operations and/or cash flows.

In addition, as a result of the significant ongoing uncertainty with respect to both U.S. defense spending and the evolving nature of the national security threat environment, we also expect the U.S. DoD to continue to emphasize affordability, innovation, cybersecurity and delivery of technical data and



software in its procurement processes. If we can no longer adjust successfully to these changing acquisition policies, our revenues and market share could be impacted. Also, additional federal appropriations to cover the increased costs of federal contractors' compliance with evolving U.S. Government contractual requirements associated with COVID-19 mitigation are unlikely, reducing the U.S. Government's buying power.

***Our ability to deliver products and services that satisfy customer requirements is heavily dependent on the performance and financial stability of our subcontractors and suppliers, as well as on the availability of raw materials and other components.***

We rely on other companies, including U.S. and non-U.S. subcontractors and suppliers, to provide and produce raw materials, integrated components and sub-assemblies, and production commodities and to perform some of the services that we provide to our customers. If one or more of our suppliers or subcontractors experiences financial difficulties, delivery delays or other performance problems, we may be unable to meet commitments to our customers or incur additional costs. In addition, if one or more of the raw materials on which we depend (such as aluminum, titanium or composites) becomes unavailable to us or our suppliers, or is available only at very high prices, we may be unable to deliver one or more of our products in a timely fashion or at budgeted costs. In some instances, we depend upon a single source of supply. Any service disruption from one of these suppliers, either due to circumstances beyond the supplier's control, such as geopolitical developments, or as a result of performance problems or financial difficulties, could have a material adverse effect on our ability to meet commitments to our customers or increase our operating costs.

***Competition within our markets and with respect to the products we sell may reduce our future contracts and sales.***

The markets in which we operate are highly competitive and one or more of our competitors may have more extensive or more specialized engineering, manufacturing and marketing capabilities than we do in some areas. In our Commercial Airplanes business, we anticipate increasing competition among non-U.S. aircraft manufacturers of commercial jet aircraft. In our BDS business, we anticipate that the effects of defense industry consolidation, shifting acquisition and budget priorities, and continued cost pressure at our U.S. DoD and non-U.S. customers will intensify competition for many of our BDS products. Our BGS segment faces competition from many of the same strong U.S. and non-U.S. competitors facing BCA and BDS. Furthermore, we are facing increased international competition and cross-border consolidation of competition. There can be no assurance that we will be able to compete successfully against our current or future competitors or that the competitive pressures we face will not result in reduced revenues and market share.

***We derive a significant portion of our revenues from non-U.S. sales and are subject to the risks of doing business in other countries.***

In 2021, non-U.S. customers, which includes foreign military sales (FMS), accounted for approximately 37% of our revenues. We expect that non-U.S. sales will continue to account for a significant portion of our revenues for the foreseeable future. As a result, we are subject to risks of doing business internationally, including:

- changes in regulatory requirements or other executive branch actions, such as Executive Orders;
- changes in the global trade environment, including disputes with authorities in non-U.S. jurisdictions, including international trade authorities, that could impact sales and/or delivery of products and services outside the U.S. and/or impose costs on our customers in the form of tariffs, duties or penalties attributable to the importation of Boeing products and services;

- U.S. and non-U.S. government policies, including requirements to expend a portion of program funds locally and governmental industrial cooperation or participation requirements;
- fluctuations in international currency exchange rates;
- volatility in international political and economic environments and changes in non-U.S. national priorities and budgets, which can lead to delays or fluctuations in orders;
- the complexity and necessity of using non-U.S. representatives and consultants;
- the uncertainty of the ability of non-U.S. customers to finance purchases, including the availability of financing from the Export-Import Bank of the United States;
- uncertainties and restrictions concerning the availability of funding credit or guarantees;
- imposition of domestic and international taxes, export controls, tariffs, embargoes, sanctions and other trade restrictions;
- the difficulty of management and operation of an enterprise spread over many countries;
- compliance with a variety of non-U.S. laws, as well as U.S. laws affecting the activities of U.S. companies abroad; and
- unforeseen developments and conditions, including terrorism, war, epidemics and international tensions and conflicts.

While the impact of these factors is difficult to predict, any one or more of these factors could adversely affect our operations in the future. For example, since 2018, the U.S. and China have imposed tariffs on each other's imports. China is a very significant market for commercial airplanes and represents a significant component of our commercial airplanes backlog. Impacts from these or future potential tariffs, or deterioration in trade relations between the U.S. and one or more other countries, could have a material adverse impact on our financial position, results of operations and/or cash flows.

***We use estimates in accounting for many contracts and programs. Changes in our estimates could adversely affect our future financial results.***

Contract and program accounting require judgment relative to assessing risks, estimating revenues and costs and making assumptions for schedule and technical issues. Due to the size and nature of many of our contracts and programs, the estimation of total revenues and cost at completion is complicated and subject to many variables. Assumptions have to be made regarding the length of time to complete the contract or program because costs also include expected increases in wages and employee benefits, material prices and allocated fixed costs. Incentives or penalties related to performance on contracts are considered in estimating sales and profit rates and are recorded when there is sufficient information for us to assess anticipated performance. Supplier claims and assertions are also assessed and considered in estimating costs and profit rates. Estimates of future award fees are also included in sales and profit rates.

With respect to each of our commercial aircraft programs, inventoriable production costs (including overhead), program tooling and other non-recurring costs and routine warranty costs are accumulated and charged as cost of sales by program instead of by individual units or contracts. A program consists of the estimated number of units (accounting quantity) of a product to be produced in a continuing, long-term production effort for delivery under existing and anticipated contracts limited by the ability to make reasonably dependable estimates. To establish the relationship of sales to cost of sales, program accounting requires estimates of (a) the number of units to be produced and sold in a program, (b) the period over which the units can reasonably be expected to be produced and (c) the units' expected sales prices, production costs, program tooling and other non-recurring costs, and routine warranty costs for the total program. Several factors determine accounting quantity, including firm orders, letters of intent from prospective customers and market studies. Changes to customer or model mix,



production costs and rates, learning curve, changes to price escalation indices, costs of derivative aircraft, supplier performance, customer and supplier negotiations/settlements, supplier claims and/or certification issues can impact these estimates. In addition, on development programs such as the 777X, we are subject to risks with respect to the timing and conditions of aircraft certification, including potential gaps between when aircraft are certified in various jurisdictions, changes in certification processes and our estimates with respect to timing of future certifications, which could have an impact on overall program status. Any such change in estimates relating to program accounting may adversely affect future financial performance.

Because of the significance of the judgments and estimation processes described above, materially different sales and profit amounts could be recorded if we used different assumptions or if the underlying circumstances were to change. Changes in underlying assumptions, circumstances or estimates may adversely affect future period financial performance. For additional information on our accounting policies for recognizing sales and profits, see our discussion under “Management’s Discussion and Analysis – Critical Accounting Policies & Estimates – Accounting for Long-term Contracts/Program Accounting” on pages 51 – 54 and Note 1 to our Consolidated Financial Statements on pages 64 – 77 of this Form 10-K.

***We may not realize the anticipated benefits of mergers, acquisitions, joint ventures/strategic alliances or divestitures.***

As part of our business strategy, we may merge with or acquire businesses and/or form joint ventures and strategic alliances. Whether we realize the anticipated benefits from these acquisitions and related activities depends, in part, upon our ability to integrate the operations of the acquired business, the performance of the underlying product and service portfolio, and the performance of the management team and other personnel of the acquired operations. Accordingly, our financial results could be adversely affected by unanticipated performance issues, legacy liabilities, transaction-related charges, amortization of expenses related to intangibles, charges for impairment of long-term assets, credit guarantees, partner performance and indemnifications. Consolidations of joint ventures could also impact our reported results of operations or financial position. While we believe that we have established appropriate and adequate procedures and processes to mitigate these risks, there is no assurance that these transactions will be successful. We also may make strategic divestitures from time to time. These transactions may result in continued financial involvement in the divested businesses, such as through guarantees or other financial arrangements, following the transaction. Nonperformance by those divested businesses could affect our future financial results through additional payment obligations, higher costs or asset write-downs.

**Risks Related to Our Contracts**

***We conduct a significant portion of our business pursuant to U.S. government contracts, which are subject to unique risks.***

In 2021, 49% of our revenues were earned pursuant to U.S. government contracts, which include FMS through the U.S. government. Business conducted pursuant to such contracts is subject to extensive procurement regulations and other unique risks.

*Our sales to the U.S. government are subject to extensive procurement regulations, and changes to those regulations could increase our costs.* New procurement regulations, or changes to existing requirements, could increase our compliance costs or otherwise have a material impact on the operating margins of our BDS and BGS businesses. These requirements may also result in withheld payments and/or reduced future business if we fail to comply. For example, proposals to raise domestic content thresholds for our U.S. government contracts could have negative impacts on our business. Compliance costs attributable to current and potential future procurement regulations such as these could negatively impact our financial position, results of operations and/or cash flows.

*The U.S. government may modify, curtail or terminate one or more of our contracts.* The U.S. government contracting party may modify, curtail or terminate its contracts and subcontracts with us, without prior notice and either at its convenience or for default based on performance. In addition, funding pursuant to our U.S. government contracts may be reduced or withheld as part of the U.S. Congressional appropriations process due to fiscal constraints, changes in U.S. national security strategy and/or priorities or other reasons. Further uncertainty with respect to ongoing programs could also result in the event that the U.S. government finances its operations through temporary funding measures such as “continuing resolutions” rather than full-year appropriations. Any loss or anticipated loss or reduction of expected funding and/or modification, curtailment or termination of one or more large programs could have a material adverse effect on our financial position, results of operations and/or cash flows.

*We are subject to U.S. government inquiries and investigations, including periodic audits of costs that we determine are reimbursable under U.S. government contracts.* U.S. government agencies, including the Defense Contract Audit Agency and the Defense Contract Management Agency, routinely audit government contractors. These agencies review our performance under contracts, cost structure and compliance with applicable laws, regulations and standards, as well as the adequacy of and our compliance with our internal control systems and policies. Any costs found to be misclassified or inaccurately allocated to a specific contract will be deemed non-reimbursable, and to the extent already reimbursed, must be refunded. Any inadequacies in our systems and policies could result in withholds on billed receivables, penalties and reduced future business. Furthermore, if any audit, inquiry or investigation uncovers improper or illegal activities, we could be subject to civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits, suspension of payments, fines and suspension or debarment from doing business with the U.S. government. We also could suffer reputational harm if allegations of impropriety were made against us, even if such allegations are later determined to be false.

***We enter into fixed-price contracts which could subject us to losses if we have cost overruns.***

Our BDS and BGS defense businesses generated approximately 68% and 69% of their 2021 revenues from fixed-price contracts. While fixed-price contracts enable us to benefit from performance improvements, cost reductions and efficiencies, they also subject us to the risk of reduced margins or incurring losses if we are unable to achieve estimated costs and revenues. In addition, increased compliance costs and costs due to loss of productivity due to COVID-19 may not be reimbursed. If our estimated costs exceed our estimated price, we recognize reach-forward losses which can significantly affect our reported results. For example in the fourth quarter of 2021, BDS recorded additional losses of \$402 million on the KC-46A Tanker contract reflecting continued disruption in the factory and in the supply chain, including impacts of COVID-19, and an increase in costs to complete the new Remote Vision System as the customer’s requirements definition has evolved. New programs could also have risk for reach-forward loss upon contract award and during the period of contract performance. The long term nature of many of our contracts makes the process of estimating costs and revenues on fixed-price contracts inherently risky. Fixed-price contracts often contain price incentives and penalties tied to performance, which can be difficult to estimate and have significant impacts on margins. In addition, some of our contracts have specific provisions relating to cost, schedule and performance.

Fixed-price development contracts are generally subject to more uncertainty than fixed-price production contracts. Many of these development programs have highly complex designs. In addition, technical or quality issues that arise during development could lead to schedule delays and higher costs to complete, which could result in a material charge or otherwise adversely affect our financial condition. Examples of significant BDS fixed-price development contracts include Commercial Crew, KC-46A Tanker, T-7A Red Hawk, VC-25B Presidential Aircraft, MQ-25, and commercial and military satellites.



***We enter into cost-type contracts, which also carry risks.***

Our BDS and BGS defense businesses generated approximately 32% and 31% of their 2021 revenues from cost-type contracting arrangements. Some of these are development programs that have complex design and technical challenges. These cost-type programs typically have award or incentive fees that are subject to uncertainty and may be earned over extended periods. In these cases the associated financial risks are primarily in reduced fees, lower profit rates or program cancellation if cost, schedule or technical performance issues arise. Programs whose contracts are primarily cost-type include Ground-based Midcourse Defense (GMD), Proprietary and SLS programs.

***We enter into contracts that include in-orbit incentive payments that subject us to risks.***

Contracts in the commercial satellite industry and certain government satellite contracts include in-orbit incentive payments. These in-orbit payments may be paid over time after final satellite acceptance or paid in full prior to final satellite acceptance. In both cases, the in-orbit incentive payment is at risk if the satellite does not perform to specifications for up to 15 years after acceptance. The net present value of in-orbit incentive fees we ultimately expect to realize is recognized as revenue in the construction period. If the satellite fails to meet contractual performance criteria, customers will not be obligated to continue making in-orbit payments and/or we may be required to provide refunds to the customer and incur significant charges.

**Risks Related to Cybersecurity and Business Disruptions**

***Unauthorized access to our, our customers' and/or our suppliers' information and systems could negatively impact our business.***

We face certain security threats, including threats to the confidentiality, availability and integrity of our data and systems. We maintain an extensive network of technical security controls, policy enforcement mechanisms, monitoring systems and management oversight in order to address these threats. While these measures are designed to prevent, detect and respond to unauthorized activity in our systems, certain types of attacks, including cyber-attacks, could result in significant financial or information losses and/or reputational harm. In addition, we manage information and information technology systems for certain customers and/or suppliers. Many of these customers and/or suppliers face similar security threats. If we cannot prevent the unauthorized access, release and/or corruption of our customers' and/or suppliers' confidential, classified or personally identifiable information, our reputation could be damaged, and/or we could face financial losses.

***Business disruptions could seriously affect our future sales and financial condition or increase our costs and expenses.***

Our business may be impacted by disruptions including threats to physical security, information technology, or cyber-attacks or failures, damaging or extreme weather (including effects of climate change), or other acts of nature and pandemics or other public health crises. Any of these disruptions could affect our internal operations or our suppliers' operations and delay delivery of products and services to our customers. Any significant production delays, or any destruction, manipulation or improper use of Boeing's or our suppliers' data, information systems or networks could impact our sales, increase our expenses and/or have an adverse effect on the reputation of Boeing and of our products and services.

## **Risks Related to Legal and Regulatory Matters**

***The outcome of litigation and of government inquiries and investigations involving our business is unpredictable and an adverse decision in any such matter could have a material effect on our financial position and results of operations.***

We are involved in a number of litigation matters. These matters may divert financial and management resources that would otherwise be used to benefit our operations. No assurances can be given that the results of these matters will be favorable to us. An adverse resolution of any of these lawsuits, or future lawsuits, could have a material impact on our financial position and results of operations. In addition, we are subject to extensive regulation under the laws of the United States and its various states, as well as other jurisdictions in which we operate. As a result, we are sometimes subject to government inquiries and investigations of our business due, among other things, to our business relationships with the U.S. government, the heavily regulated nature of our industry, and in the case of environmental proceedings, our current or past ownership of certain property. Any such inquiry or investigation could potentially result in an adverse ruling against us, which could have a material impact on our financial position, results of operations and/or cash flows.

***Our operations expose us to the risk of material environmental liabilities.***

We are subject to various U.S. federal, state, local and non-U.S. laws and regulations related to environmental protection, including the discharge, treatment, storage, disposal and remediation of hazardous substances and wastes. We could incur substantial costs, including cleanup costs, fines and civil or criminal sanctions, as well as third-party claims for property damage or personal injury, if we were to violate or become liable under environmental laws or regulations. In some cases, we are subject to such costs due to environmental impacts attributable to our current or past manufacturing operations or the operations of companies we have acquired. In other cases, we are subject to such costs due to an indemnification agreement between us and a third party relating to such environmental liabilities. In all cases, our current liabilities and ongoing cost assessments are based on current laws and regulations. New laws and regulations, more stringent enforcement of existing laws and regulations, the discovery of previously unknown contamination or the imposition of new remediation requirements could result in additional costs. For additional information relating to environmental contingencies, see Note 13 to our Consolidated Financial Statements.

***We may be adversely affected by global climate change or by legal, regulatory or market responses to such change.***

Increasing stakeholder environmental, social and governance (ESG) expectations, physical and transition risks associated with climate change, and emerging ESG regulation and policy requirements may pose risk to our market outlook, brand and reputation, financial outlook, cost of capital, global supply chain and production continuity, which may impact our ability to achieve long-term business objectives. Changes in environmental and climate change laws or regulations could lead to additional operational restrictions and compliance requirements upon us or our products, require new or additional investment in product designs, result in carbon offset investments or otherwise could negatively impact our business and/or competitive position. Increasing aircraft performance standards and requirements on manufacturing and product air pollutant emissions, especially greenhouse gas (GHG) emissions, may result in increased costs or reputational risks and could limit our ability to manufacture and/or market certain of our products at acceptable costs, or at all. Physical impacts of climate change, increasing global chemical restrictions and bans, and water and waste requirements may drive increased costs to us and our suppliers and impact our production continuity and data facilities.

Finally, from time to time, in alignment with our sustainability priorities, we establish and publicly announce goals and commitments to improve our environmental performance, such as our recent operational goals in areas of GHG emissions, energy, water and waste. If we fail to achieve or

improperly report on our progress toward achieving our environmental goals and commitments, the resulting negative publicity could adversely affect our reputation and/or our access to capital.

### **Risks Related to Financing and Liquidity**

***We may be unable to obtain debt to fund our operations and contractual commitments at competitive rates, on commercially reasonable terms or in sufficient amounts.***

We depend, in part, upon the issuance of debt to fund our operations and contractual commitments. In addition, our debt balances have increased significantly since 2019, driven primarily by impacts related to the 737 MAX grounding and the COVID-19 pandemic, and we expect to continue to actively manage our liquidity. Our increased debt balance has also resulted in downgrades to our credit ratings. As of December 31, 2021, our debt totaled \$58.1 billion of which approximately \$11.4 billion of principal payments on outstanding debt become due over the next three years. In addition, as of December 31, 2021, our airplane financing commitments totaled \$12.9 billion. If we require additional funding in order to pay off existing debt, address further impacts to our business related to the 737 MAX, COVID-19, 787 production issues or broader market developments, fund outstanding financing commitments or meet other business requirements, our market liquidity may not be sufficient. These risks will be particularly acute if we are subject to further credit rating downgrades. A number of factors could cause us to incur increased borrowing costs and to have greater difficulty accessing public and private markets for debt. These factors include disruptions or declines in the global capital markets and/or a decline in our financial performance, outlook or credit ratings, including impacts described above related to the COVID-19 pandemic and/or associated changes in demand for our products and services. The occurrence of any or all of these events may adversely affect our ability to fund our operations and contractual or financing commitments.

***Substantial pension and other postretirement benefit obligations have a material impact on our earnings, shareholders' equity and cash flows from operations, and could have significant adverse impacts in future periods.***

Many of our employees have earned benefits under defined benefit pension plans. Potential pension contributions include both mandatory amounts required under the Employee Retirement Income Security Act and discretionary contributions to improve the plans' funded status. The extent of future contributions depends heavily on market factors such as the discount rate and the actual return on plan assets. We estimate future contributions to these plans using assumptions with respect to these and other items. Changes to those assumptions could have a significant effect on future contributions as well as on our annual pension costs and/or result in a significant change to shareholders' equity. For U.S. government contracts, we allocate pension costs to individual contracts based on U.S. Cost Accounting Standards which can also affect contract profitability. We also provide other postretirement benefits to certain of our employees, consisting principally of health care coverage for eligible retirees and qualifying dependents. Our estimates of future costs associated with these benefits are also subject to assumptions, including estimates of the level of medical cost increases. For a discussion regarding how our financial statements can be affected by pension and other postretirement plan accounting policies, see "Management's Discussion and Analysis - Critical Accounting Policies & Estimates - Pension Plans" on pages 54 - 55 of this Form 10-K. Although under Generally Accepted Accounting Principles in the United States of America (GAAP) the timing of periodic pension and other postretirement benefit expense and plan contributions are not directly related, the key economic factors that affect GAAP expense would also likely affect the amount of cash or stock we would contribute to our plans.

***Our insurance coverage may be inadequate to cover all significant risk exposures.***

We are exposed to liabilities that are unique to the products and services we provide. We maintain insurance for certain risks and, in some circumstances, we may receive indemnification from the U.S.



government. The amount of our insurance coverage may not cover all claims or liabilities, and we may be forced to bear substantial costs. For example, liabilities arising from the use of certain of our products, such as aircraft technologies, space systems, spacecraft, satellites, missile systems, weapons, cybersecurity, border security systems, anti-terrorism technologies and/or air traffic management systems may not be insurable on commercially reasonable terms. While some of these products are shielded from liability within the U.S. under the SAFETY Act provisions of the 2002 Homeland Security Act, no such protection is available outside the U.S., potentially resulting in significant liabilities. The amount of insurance coverage we maintain may be inadequate to cover these or other claims or liabilities.

***A significant portion of our customer financing portfolio is concentrated among certain customers and in certain types of Boeing aircraft, which exposes us to concentration risks.***

A significant portion of our customer financing portfolio is concentrated among certain customers and in distinct geographic regions. Our portfolio is also concentrated by varying degrees across Boeing aircraft product types, most notably 717 and 747-8 aircraft, and among customers that we believe have less than investment-grade credit. If one or more customers holding a significant portion of our portfolio assets experiences financial difficulties or otherwise defaults on or does not renew its leases with us at their expiration, and we are unable to redeploy the aircraft on reasonable terms, or if the types of aircraft that are concentrated in our portfolio suffer greater than expected declines in value, our financial position, results of operations and/or cash flows could be materially adversely affected.

**Risks Related to Labor**

***Some of our and our suppliers' workforces are represented by labor unions, which may lead to work stoppages.***

Approximately 47,000 employees, which constitute 33% of our total workforce, were union represented as of December 31, 2021. We experienced a work stoppage in 2008 when a labor strike halted commercial aircraft and certain BDS program production. We may experience additional work stoppages in the future, which could adversely affect our business. We cannot predict how stable our relationships, currently with 11 U.S. labor organizations and 12 non-U.S. labor organizations, will be or whether we will be able to meet the unions' requirements without impacting our financial condition. The unions may also limit our flexibility in dealing with our workforce. Union actions at suppliers can also affect us. Work stoppages and instability in our union relationships could delay the production and/or development of our products, which could strain relationships with customers and cause a loss of revenues which would adversely affect our operations.

**Item 1B. Unresolved Staff Comments**

Not applicable

## Item 2. Properties

We occupied approximately 82 million square feet of floor space on December 31, 2021 for manufacturing, warehousing, engineering, administration and other productive uses, of which approximately 93% was located in the United States. The following table provides a summary of the floor space by business as of December 31, 2021:

<i>(Square feet in thousands)</i>	Owned	Leased	Government Owned <sup>(1)</sup>	Total
Commercial Airplanes	39,166	2,112		41,278
Defense, Space & Security	22,584	5,970		28,554
Global Services	641	7,261		7,902
Other <sup>(2)</sup>	1,823	2,246	318	4,387
Total	64,214	17,589	318	82,121

<sup>(1)</sup> Excludes rent-free space furnished by U.S. government landlord of 49 square feet.

<sup>(2)</sup> Other includes sites used for BCC, common internal services and our Corporate Headquarters.

At December 31, 2021, we occupied in excess of 76 million square feet of floor space at the following major locations:

- Commercial Airplanes – Greater Seattle, WA; Greater Charleston, SC; Greater Portland, OR; Greater Los Angeles, CA; Greater Salt Lake City, UT; Australia and Canada
- Defense, Space & Security – Greater St. Louis, MO; Greater Seattle, WA; Greater Los Angeles, CA; Philadelphia, PA; Mesa, AZ; Huntsville, AL; Oklahoma City, OK; Heath, OH; Greater Washington, DC; Great Britain; Greater Portland, OR; Australia and Houston, TX
- Global Services – San Antonio, TX; Greater Miami, FL; Dallas, TX; Germany; Jacksonville, FL; Great Britain and Greater Denver, CO
- Other – Chicago, IL; Greater Los Angeles, CA ; Greater St. Louis, MO; and Greater Washington, DC.

Most runways and taxiways that we use are located on airport properties owned by others and are used jointly with others. Our rights to use such facilities are provided for under long-term leases with municipal, county or other government authorities. In addition, the U.S. government furnishes us certain office space, installations and equipment at U.S. government bases for use in connection with various contract activities.

To support business needs, property requirements are being evaluated to align with previously announced staffing reductions, utilization studies and strategic growth investments to optimize footprint.

## Item 3. Legal Proceedings

Currently, we are involved in a number of legal proceedings. For a discussion of contingencies related to legal proceedings, see Note 21 to our Consolidated Financial Statements, which is hereby incorporated by reference.

## Item 4. Mine Safety Disclosures

Not applicable

## PART II

### Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

The principal market for our common stock is the New York Stock Exchange where it trades under the symbol BA. As of January 24, 2022, there were 95,533 shareholders of record.

#### Issuer Purchases of Equity Securities

The following table provides information about purchases we made during the quarter ended December 31, 2021 of equity securities that are registered by us pursuant to Section 12 of the Exchange Act:

*(Dollars in millions, except per share data)*

	(a)	(b)	(c)	(d)
	Total Number of Shares Purchased <sup>(1)</sup>	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet be Purchased Under the Plans or Programs <sup>(2)</sup>
10/1/2021 thru 10/31/2021	3,077	\$223.99		
11/1/2021 thru 11/30/2021	3,940	212.15		
12/1/2021 thru 12/31/2021	80,937	206.62		
Total	87,954	\$207.48		

<sup>(1)</sup> A total of 87,954 shares were transferred to us from employees in satisfaction of minimum tax withholding obligations associated with the vesting of restricted stock units during the period. We did not purchase any shares of our common stock in the open market pursuant to a repurchase program.

<sup>(2)</sup> On March 21, 2020, the Board of Directors terminated its prior authorization to repurchase shares of the Company's outstanding common stock. Share repurchases under this plan had been suspended since April 2019.

### Item 6. [Reserved]



## **Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

### **Consolidated Results of Operations and Financial Condition**

#### **Overview**

We are a global market leader in the design, development, manufacture, sale, service and support of commercial jetliners, military aircraft, satellites, missile defense, human space flight and launch systems and services. We are one of the two major manufacturers of 100+ seat airplanes for the worldwide commercial airline industry and one of the largest defense contractors in the U.S. While our principal operations are in the U.S., we conduct operations in an expanding number of countries and rely on an extensive network of non-U.S. partners, key suppliers and subcontractors.

Our strategy is centered on successful execution in healthy core businesses – Commercial Airplanes (BCA), Defense, Space & Security (BDS) and Global Services (BGS) – supplemented and supported by Boeing Capital (BCC). Taken together, these core businesses have historically generated substantial earnings and cash flow that permit us to invest in new products and services. We focus on producing the products and providing the services that the market demands, and continue to find new ways to improve efficiency and quality to provide a fair return for our shareholders. BCA is committed to being the leader in commercial aviation by offering airplanes and services that deliver superior design, safety, efficiency and value to customers around the world. BDS integrates its resources in defense, intelligence, communications, security, space and services to deliver capability-driven solutions to customers at reduced costs. Our BDS strategy is to leverage our core businesses to capture key next-generation programs while expanding our presence in adjacent and international markets, underscored by an intense focus on growth and productivity. BGS provides support for commercial and defense through innovative, comprehensive and cost-competitive product and service solutions. BCC facilitates, arranges, structures and provides selective financing solutions for our Boeing customers.

#### **Business Environment and Trends**

The global outbreak of COVID-19, 787 production issues and associated rework, and the residual impacts of the 737 MAX grounding continued to have significant adverse impacts on our business in 2021. The COVID-19 pandemic has caused an unprecedented shock to demand for air travel, creating a tremendous challenge for our customers, our business and the entire commercial aerospace manufacturing and services sector. The latest International Air Transport Association (IATA) release reported that passenger traffic in 2021 recovered to approximately 40% of 2019 levels, as international markets saw continued reopening challenges. Additionally, global economic activity is improving, but continues to be impacted by COVID-19, and governments continue to restrict travel to contain the spread of the virus. While recovery is accelerating, we continue to expect that it will remain uneven as travel restrictions and varying regional travel protocols continue to impact air travel.

Generally, we continue to expect domestic travel to recover faster than international travel. As a result, we expect the narrow-body market to recover faster than the wide-body market. Also, the pace of the commercial market recovery will be heavily dependent on COVID-19 infection rates, vaccination rates, and government travel and other restrictions on trade and commercial activity. Demand for dedicated freighters continues to be strong, underpinned by a strong recovery in global trade and overall air cargo growth. Overall cargo capacity remains challenged given the large impact that COVID-19 has had on international passenger operations, which also carry cargo.

Airline financial performance, which also plays a role in the demand for new capacity, has been adversely impacted by the COVID-19 pandemic. According to IATA, net losses for the airline industry were \$138 billion in 2020 and are expected to be approximately \$52 billion in 2021. Our customers are taking actions to combat the effects of the COVID-19 pandemic on the market by preserving liquidity. This comes in many forms, such as deferrals of advances and other payments to suppliers, deferrals of deliveries, reduced spending on services and, in some cases, cancellation of orders. While the outlook is improving and we have seen an increase in new orders in 2021, we continue to face a challenging environment in the near- to medium-term as airlines have adjusted to reduced traffic, which in turn has resulted in lower demand for commercial aerospace products and services. The current environment is also affecting the financial viability of some airlines.

We continue to expect commercial air travel to return to 2019 levels in 2023 to 2024. We expect it will take a few years beyond that for the industry to return to long-term trend growth. To balance the supply and demand given the COVID-19 shock and to preserve our long-term potential and competitiveness, we have reduced the production rates of several of our BCA programs. These rate decisions are based on our ongoing assessments of the demand environment and availability of aircraft financing. There is significant uncertainty with respect to when commercial air traffic levels will recover, and whether, and at what point, capacity will return to and/or exceed pre-COVID-19 levels. During the fourth quarter of 2020, we made adjustments to our estimates regarding timing of 777X entry into service and market demand. We continue to anticipate that the first 777X delivery will occur in late 2023. We will closely monitor the key factors that affect backlog and future demand for each of our commercial aircraft programs, including customers' evolving fleet plans, the wide-body replacement cycle and the cargo market. We will maintain a disciplined rate management process and make adjustments as appropriate in the future. Notwithstanding the changes we have made to production rates, risk remains that further reductions will be required. Additionally, if we are unable to make timely deliveries of the large number of aircraft in inventory as of December 31, 2021, future revenues, earnings and cash flows will be adversely impacted.

Deliveries of the 737 MAX resumed in the fourth quarter of 2020, when the Federal Aviation Administration (FAA) rescinded the order that grounded 737 MAX aircraft in the U.S. In addition, other non-U.S. civil aviation authorities, including the Brazilian National Civil Aviation Agency, Transport Canada and the European Union Aviation Safety Agency have subsequently approved return of operations, allowing us to resume deliveries in those jurisdictions. Over 185 countries have approved the resumption of 737 MAX operations. The Civil Aviation Administration of China issued an airworthiness directive in the fourth quarter of 2021 outlining actions required for airlines to return to service. We expect 737 MAX deliveries to China to resume in 2022, subject to final regulatory approvals, although risk remains around the timing and rate of those deliveries. Orders to suspend operations of 737 MAX aircraft from non-U.S. civil aviation authorities are still in effect in a small number of countries.

Deliveries and production have also been impacted by production issues and associated rework. For example, deliveries of the 787 are currently paused and the production rate has been reduced while we focus on rework of undelivered aircraft and continue to engage in detailed discussions with the FAA regarding required actions for resuming deliveries. Risk remains that these issues may continue to impact the timing of airplane deliveries in inventory and/or our ability to achieve planned production rates. Revenues, earnings and cash flows will continue to be impacted until we are able to resume timely deliveries.

The long-term outlook for the industry remains positive due to the fundamental drivers of air travel demand: economic growth, increasing propensity to travel due to increased trade, globalization and improved airline services driven by liberalization of air traffic rights between countries. The shock from COVID-19 has reduced the near- to medium-term demand, but our Commercial Market Outlook forecast projects a 4% growth rate for passenger and cargo traffic over a 20 year period. Based on long-term global economic growth projections of 2.7% average annual gross domestic product (GDP) growth, we project demand for approximately 43,610 new airplanes over the next 20 years. The industry remains vulnerable to exogenous developments including fuel price spikes, credit market shocks, acts of terrorism, natural disasters, conflicts, epidemics, pandemics and increased global environmental regulations.

A Continuing Resolution (CR), enacted on December 3, 2021, continues funding for the federal government at FY21 appropriated levels through February 18, 2022. Congress and the President must enact either full-year FY22 appropriations bills or an additional CR to fund government departments and agencies beyond February 18, 2022 or a government shutdown could result, which may impact the Company's operations.

At BGS, while the outlook is improving, we are continuing to see a direct impact on our commercial supply chain business as fewer flights and more aircraft parked result in a decreased demand for our parts and logistics offerings. Additionally, our commercial customers are curtailing discretionary spending, such as modifications and upgrades, and focusing on required maintenance. Similar to BCA, we expect a multi-year recovery period for the commercial services business. The demand outlook for our government services business remains stable; government services comprises approximately half of BGS revenue, which is unchanged from pre-pandemic levels.

At BDS, we continue to see a healthy market with solid demand for our major platforms and programs both domestically and internationally. However, while we continue to experience near-term production disruptions and inefficiencies due to COVID-19 impacts, we saw improvements in 2021.

In addition, we are experiencing some supply chain shortages. Our suppliers are also experiencing liquidity pressures and disruptions to their operations as a result of COVID-19. We continue to monitor the health and stability of the supply chain as we ramp up production. These measures and disruptions have reduced overall productivity and adversely impacted our financial position, results of operations and cash flows.

We continue to transform and improve our business processes. These activities are not intended to constrain our capacity but to enable the Company to emerge stronger and be more resilient when the market recovers. We expect that successful execution of these measures will improve near-term liquidity and long-term cost competitiveness.



## Consolidated Results of Operations

The following table summarizes key indicators of consolidated results of operations:

*(Dollars in millions, except per share data)*

Years ended December 31,	2021	2020	2019
Revenues	\$62,286	\$58,158	\$76,559
<b>GAAP</b>			
Loss from operations	(\$2,902)	(\$12,767)	(\$1,975)
Operating margins	(4.7)%	(22.0)%	(2.6)%
Effective income tax rate	14.8 %	17.5 %	71.8 %
Net loss attributable to Boeing Shareholders	(\$4,202)	(\$11,873)	(\$636)
Diluted loss per share	(\$7.15)	(\$20.88)	(\$1.12)
<b>Non-GAAP <sup>(1)</sup></b>			
Core operating loss	(\$4,075)	(\$14,150)	(\$3,390)
Core operating margins	(6.5)%	(24.3)%	(4.4)%
Core loss per share	(\$9.44)	(\$23.25)	(\$3.47)

(1) These measures exclude certain components of pension and other postretirement benefit expense. See pages 49 - 51 for important information about these non-GAAP measures and reconciliations to the most comparable GAAP measures.

## Revenues

The following table summarizes Revenues:

*(Dollars in millions)*

Years ended December 31,	2021	2020	2019
Commercial Airplanes	\$19,493	\$16,162	\$32,255
Defense, Space & Security	26,540	26,257	26,095
Global Services	16,328	15,543	18,468
Boeing Capital	272	261	244
Unallocated items, eliminations and other	(347)	(65)	(503)
Total	\$62,286	\$58,158	\$76,559

Revenues increased by \$4,128 million in 2021 compared with 2020 driven by higher revenues at BCA, BDS and BGS. BCA revenues increased by \$3,331 million primarily driven by higher 737 MAX deliveries due to recertification and return to service in most jurisdictions and the absence of \$498 million of 737 MAX customer considerations which reduced revenues in 2020, partially offset by lower 787 deliveries in 2021. BDS revenues increased by \$283 million primarily from higher revenue on the KC-46A Tanker program and lower charges in 2021. BGS revenues increased by \$785 million primarily due to higher commercial and government services volume.

Revenues decreased by \$18,401 million in 2020 compared with 2019 primarily due to lower revenues in our commercial airplanes and commercial services businesses. Revenues for each of our segments have been adversely impacted by COVID-19. BCA revenues decreased by \$16,093 million due to lower deliveries driven by the impacts of the COVID-19 pandemic, 787 production issues and the 737 MAX grounding, offset by lower charges related to estimated potential concessions and other considerations to 737 MAX customers. BDS revenues increased by \$162 million primarily due to higher fighter aircraft

and other volume, partially offset by the impact of higher unfavorable cumulative contract catch-up adjustments, largely due to KC-46A Tanker charges in 2020. BGS revenues decreased by \$2,925 million primarily due to lower commercial services revenue driven by the COVID-19 pandemic. The changes in Unallocated items, eliminations and other primarily reflect the timing of eliminations for intercompany aircraft deliveries, as well as reserves related to cost accounting litigation recorded in 2019.

Revenues will continue to be significantly impacted until deliveries ramp up and the commercial airline industry recovers from the impacts of COVID-19.

## Loss From Operations

The following table summarizes Loss from operations:

*(Dollars in millions)*

Years ended December 31,	2021	2020	2019
Commercial Airplanes	<b>(\$6,475)</b>	(\$13,847)	(\$6,657)
Defense, Space & Security	<b>1,544</b>	1,539	2,615
Global Services	<b>2,017</b>	450	2,697
Boeing Capital	<b>106</b>	63	28
Segment operating loss	<b>(2,808)</b>	(11,795)	(1,317)
Pension FAS/CAS service cost adjustment	<b>882</b>	1,024	1,071
Postretirement FAS/CAS service cost adjustment	<b>291</b>	359	344
Unallocated items, eliminations and other	<b>(1,267)</b>	(2,355)	(2,073)
Loss from operations (GAAP)	<b>(\$2,902)</b>	(\$12,767)	(\$1,975)
FAS/CAS service cost adjustment *	<b>(1,173)</b>	(1,383)	(1,415)
Core operating loss (Non-GAAP) **	<b>(\$4,075)</b>	(\$14,150)	(\$3,390)

\* The FAS/CAS service cost adjustment represents the difference between the FAS pension and postretirement service costs calculated under GAAP and costs allocated to the business segments.

\*\* Core operating earnings is a Non-GAAP measure that excludes the FAS/CAS service cost adjustment. See pages 49 - 51.

Loss from operations decreased by \$9,865 million in 2021 compared with 2020 primarily due to lower losses at BCA and higher earnings at BGS. BCA loss from operations decreased by \$7,372 million primarily due to the absence of a \$6,493 million reach-forward loss on the 777X program recorded in 2020, lower period expenses, lower 737 MAX customer considerations and higher 737 MAX deliveries, partially offset by a \$3,460 million reach-forward loss on the 787 program in 2021. BGS earnings from operations increased by \$1,567 million in 2021 compared with 2020 primarily due to charges incurred in 2020 as a result of the COVID-19 pandemic, as well as higher commercial services volume.

Loss from operations increased by \$10,792 million in 2020 compared with 2019 primarily due to increased losses at BCA and decreased earnings at BGS and BDS. BCA loss from operations increased by \$7,190 million. The loss in 2020 primarily reflects a reach-forward loss recorded in the fourth quarter of \$6,493 million on the 777X program. BCA's loss in 2020 also reflects the absence of MAX deliveries during the first three quarters of the year, lower wide-body deliveries and lower program margins resulting from the COVID-19 pandemic and 787 production issues, abnormal production costs, 737NG frame fitting component repair costs, severance costs and 737 MAX customer considerations.

The loss in 2019 primarily reflects the absence of 737 MAX deliveries in the second, third and fourth quarters and charges of \$8,259 million for estimated 737 MAX customer considerations. BDS earnings

decreased by \$1,076 million in 2020 compared with 2019, primarily due to higher unfavorable cumulative contract catch-up adjustments, including charges of \$1,320 million on KC-46A Tanker and \$168 million on VC-25B in 2020, partially offset by \$489 million of charges on Commercial Crew in 2019. The lower earnings were also driven by lower gains on property sales compared to 2019. BGS earnings from operations decreased by \$2,247 million in 2020 compared with 2019 primarily due to lower commercial services revenue, as well as asset impairments and severance costs resulting from the COVID-19 market environment.

Lower commercial airplane deliveries and the COVID-19 pandemic will continue to have a significant adverse impact on future earnings and margins until deliveries ramp up and return to historical levels.

Core operating loss decreased by \$10,075 million in 2021 compared with 2020 primarily due to lower losses at BCA and higher earnings at BGS, as described above.

Core operating loss increased by \$10,760 million in 2020 compared with 2019 primarily due to higher losses at BCA and lower earnings at BGS and BDS.

**Unallocated Items, Eliminations and Other** The most significant items included in Unallocated items, eliminations and other are shown in the following table:

*(Dollars in millions)*

Years ended December 31,	2021	2020	2019
Share-based plans	(\$174)	(\$120)	(\$65)
Deferred compensation	(126)	(93)	(174)
Amortization of previously capitalized interest	(107)	(95)	(89)
Research and development expense, net	(184)	(240)	(401)
Customer financing impairment			(250)
Litigation			(109)
Eliminations and other unallocated items	(676)	(1,807)	(985)
Unallocated items, eliminations and other	(\$1,267)	(\$2,355)	(\$2,073)

Share-based plans expense increased by \$54 million in 2021 and \$55 million in 2020. The higher expense in 2021 was primarily related to a one-time grant of restricted stock units (RSUs) to most employees in December 2020. The increase in 2020 was due to increased grants of RSUs and other share-based compensation.

Deferred compensation expense increased by \$33 million in 2021, primarily driven by changes in our stock price, and decreased by \$81 million in 2020, primarily driven by changes in broad stock market conditions and our stock price.

Research and development expense decreased by \$56 million in 2021 and \$161 million in 2020 primarily due to decreases in enterprise investments in product development.

In 2019, we recorded a \$250 million charge related to the impairment of lease incentives with one customer that experienced liquidity issues and a \$109 million charge related to ongoing litigation associated with recoverable costs on U.S. government contracts.

Eliminations and other unallocated expense decreased by \$1,131 million in 2021 and increased by \$822 million in 2020 primarily due to earnings charges of \$744 million in the fourth quarter of 2020 in anticipation of the agreement between Boeing and the U.S. Department of Justice that was finalized in January 2021 and higher income from operating investments in 2021. See Note 21.

Net periodic pension benefit costs included in Loss from operations were as follows:

<i>(Dollars in millions)</i>	Pension		
Years ended December 31,	2021	2020	2019
Allocated to business segments	<b>(\$885)</b>	(\$1,027)	(\$1,384)
Pension FAS/CAS service cost adjustment	<b>882</b>	1,024	1,071
Net periodic pension benefit cost included in Loss from operations	<b>(\$3)</b>	(\$3)	(\$313)

The pension FAS/CAS service cost adjustment recognized in Loss from operations in 2021 decreased by \$142 million compared with 2020 due to reductions in allocated pension cost year over year. The pension FAS/CAS service cost adjustment recognized in Loss from operations in 2020 was largely consistent with 2019. Net periodic benefit cost included in Loss from operations in 2021 was largely consistent with 2020. The decrease in net periodic benefit cost included in Loss from operations in 2020 was primarily due to prior year service cost that was included in earnings in 2019.

For additional discussion related to Postretirement Plans, see Note 16 to our Consolidated Financial Statements.

### Other Earnings Items

<i>(Dollars in millions)</i>	2021	2020	2019
Years ended December 31,			
Loss from operations	<b>(\$2,902)</b>	(\$12,767)	(\$1,975)
Other income, net	<b>551</b>	447	438
Interest and debt expense	<b>(2,682)</b>	(2,156)	(722)
Loss before income taxes	<b>(5,033)</b>	(14,476)	(2,259)
Income tax benefit	<b>743</b>	2,535	1,623
Net loss from continuing operations	<b>(4,290)</b>	(11,941)	(636)
Less: net loss attributable to noncontrolling interest	<b>(88)</b>	(68)	
Net loss attributable to Boeing Shareholders	<b>(\$4,202)</b>	<b>(\$11,873)</b>	<b>(\$636)</b>

Non-operating pension income included in Other income, net was \$528 million in 2021, \$340 million in 2020 and \$374 million in 2019. The increased income in 2021 compared to 2020 was primarily due to lower interest cost and higher expected return on plan assets, partially offset by higher amortization of net actuarial losses and higher settlement charges. The decreased income in 2020 compared to 2019 was due to higher amortization of actuarial losses and lower asset returns, partially offset by lower interest cost.

Non-operating postretirement income included in Other income, net was \$1 million in 2021, compared with expense of \$16 million in 2020 and \$107 million in 2019. The increased income in 2021 compared to 2020 was due to lower interest cost. The decreased expense in 2020 compared to 2019 was due to lower interest cost.

Interest and debt expense increased by \$526 million in 2021 and increased by \$1,434 million in 2020 as a result of higher average debt balances.

For additional discussion related to Income Taxes, see Note 4 to our Consolidated Financial Statements.



## Total Costs and Expenses (“Cost of Sales”)

Cost of sales, for both products and services, consists primarily of raw materials, parts, sub-assemblies, labor, overhead and subcontracting costs. Our BCA segment predominantly uses program accounting to account for cost of sales. Under program accounting, cost of sales for each commercial airplane program equals the product of (i) revenue recognized in connection with customer deliveries and (ii) the estimated cost of sales percentage applicable to the total remaining program. For long-term contracts, the amount reported as cost of sales is recognized as incurred. Substantially all contracts at our BDS segment and certain contracts at our BGS segment are long-term contracts with the U.S. government and other customers that generally extend over several years. Cost of sales for commercial spare parts is recorded at average cost.

The following table summarizes cost of sales:

*(Dollars in millions)*

Years ended December 31	2021	2020	Change	2020	2019	Change
Cost of sales	<b>\$59,269</b>	\$63,843	(\$4,574)	\$63,843	\$72,093	(\$8,250)
Cost of sales as a % of Revenues	<b>95.2 %</b>	109.8 %	(14.6)%	109.8 %	94.2 %	15.6 %

Cost of sales decreased by \$4,574 million in 2021 compared with 2020, primarily due to higher earnings charges at BCA, BDS and BGS in 2020, partially offset by higher costs as a result of higher revenues in 2021 and the reach-forward loss on the 787 program. Cost of sales as a percentage of Revenues decreased in 2021 compared to 2020 primarily due to higher earnings charges at BCA and BGS in 2020 and higher revenues in 2021.

Cost of sales decreased by \$8,250 million in 2020 compared with 2019, primarily due to lower revenue in 2020, partially offset by higher charges in 2020 related to the 777X program, COVID-19 impacts, KC-46A Tanker program, abnormal production costs at BCA and severance costs. Cost of sales as a percentage of Revenues increased in 2020 compared to 2019 primarily due to the reach-forward loss on the 777X program, impacts of the 737 MAX grounding and the COVID-19 pandemic, as well as severance costs.

**Research and Development** The following table summarizes our Research and development expense:

*(Dollars in millions)*

Years ended December 31,	2021	2020	2019
Commercial Airplanes	<b>\$1,140</b>	\$1,385	\$1,956
Defense, Space & Security	<b>818</b>	713	741
Global Services	<b>107</b>	138	121
Other	<b>184</b>	240	401
Total	<b>\$2,249</b>	\$2,476	\$3,219

Research and development expense decreased by \$227 million in 2021 compared with 2020 primarily due to lower BCA and enterprise investments in product development and lower spending on the 777X program.

Research and development expense decreased by \$743 million in 2020 compared with 2019 primarily due to lower spending at BCA and at Boeing NeXt on product development.

## Backlog

Our backlog at December 31 was as follows:

*(Dollars in millions)*

Years ended December 31,	2021	2020
Commercial Airplanes	\$296,882	\$281,588
Defense, Space & Security	59,828	60,847
Global Services	20,496	20,632
Unallocated items, eliminations and other	293	337
<b>Total Backlog</b>	<b>\$377,499</b>	<b>\$363,404</b>
Contractual backlog	\$356,362	\$339,309
Unobligated backlog	21,137	24,095
<b>Total Backlog</b>	<b>\$377,499</b>	<b>\$363,404</b>

Contractual backlog of unfilled orders excludes purchase options, announced orders for which definitive contracts have not been executed, orders where customers have the unilateral right to terminate, and unobligated U.S. and non-U.S. government contract funding. The increase in contractual backlog during 2021 was primarily due to new orders, reclassifications from unobligated backlog related to BDS and BGS contracts, increases in price escalation and reductions in the number of existing orders that in our assessment do not meet the accounting requirements of Accounting Standards Codification (ASC) 606 for inclusion in backlog, partially offset by deliveries and cancellations. During 2021, we have had higher ASC 606 adjustments of 787 orders as a result of delivery delays related to inspections and rework. If 787 aircraft deliveries continue to be paused, we remain unable to deliver 737 MAX aircraft in China for an extended period of time, and/or entry into service of the 777X, 737 MAX 7 and/or 737 MAX 10 is further delayed, we may experience additional reductions to backlog and/or significant order cancellations. Additionally, we may continue to experience fewer new orders and increased cancellations across all of our commercial airplane programs as a result of the COVID-19 pandemic and associated impacts on demand.

Unobligated backlog includes U.S. and non-U.S. government definitive contracts for which funding has not been authorized. The decrease in unobligated backlog in 2021 was primarily due to reclassifications to contractual backlog related to BDS and BGS contracts, partially offset by contract awards.

## Additional Considerations

**Global Trade** We continually monitor the global trade environment in response to geopolitical economic developments, as well as changes in tariffs, trade agreements or sanctions that may impact the company.

The global economy continues to experience significant adverse impacts due to the COVID-19 pandemic, including a decline in overall trade in general and in aerospace in particular. There is a great deal of uncertainty regarding the duration, scale and localization of these impacts to the global economy and governments are enacting a wide range of responses to mitigate the unfolding economic impacts. We are closely monitoring the current impact and potential future economic consequences of COVID-19 to the global economy, the aerospace sector and our Company. These adverse economic impacts have resulted in fewer orders than previously anticipated for our commercial aircraft.

The current state of U.S.-China relations remains a significant watch item. China is a very significant market for commercial airplanes and represents a significant component of our commercial airplanes backlog. Since 2018, the U.S. and China imposed an escalating series of tariffs on each other's imports. Certain aircraft parts and components that Boeing procures are subject to these tariffs. The U.S. and China entered into a Phase I agreement in January 2020. However, as of December 31, 2021, implementation of this agreement is incomplete and overall diplomatic relations between the U.S. and China have deteriorated. We continue monitoring developments for potential adverse impacts to the Company.

Beginning in June 2018, the U.S. Government has imposed tariffs on steel and aluminum imports. In response to these tariffs, several major U.S. trading partners have imposed, or announced their intention to impose, tariffs on U.S. goods. In May 2019, the U.S. Government, Mexico and Canada reached an agreement to end the steel and aluminum tariffs between these countries. Implementation of the U.S./Mexico/Canada Free Trade Agreement (USMCA) will also result in lower tariffs. In October 2021, the U.S. and European Union (EU) announced an agreement to ease steel and aluminum tariffs. We continue to monitor the potential for any extra costs that may result from the remaining global tariffs.

The current status of U.S.-Russia relations is creating an adverse climate for our business. The U.S. Government continues to impose and/or consider imposing sanctions on certain businesses and individuals in Russia. We continue to monitor and evaluate additional sanctions and export restrictions that may be imposed by the U.S. Government and any responses from Russia that could directly affect our supply chain, business partners or customers. We also continue to support the 737 MAX return to service in Russia.

The U.S. and EU have been engaged in two long-running disputes at the World Trade Organization (WTO) relating to large civil aircraft. As part of those disputes, in October 2019, the WTO authorized the U.S. to impose approximately \$7.50 billion in annual tariffs on EU products in connection with the EU's provision of eight instances of launch aid subsidies to Airbus. Following this authorization, the U.S. began to impose 15% tariffs on new Airbus airplanes imported into the U.S. as well as fuselages that Airbus manufactures in Europe and imports into the U.S. In October 2020, the WTO authorized the EU to impose approximately \$3.99 billion in annual tariffs on U.S. products in connection with a tax incentive used by Boeing in Washington state that has since been repealed. Shortly thereafter, the EU began to impose 15% tariffs on Boeing airplanes imported into the EU. On June 15, 2021, the U.S. and EU announced that they had reached a cooperative framework to address the large civil aircraft disputes. As part of the framework, among other items, both sides announced an intent to continue to suspend tariffs related to the disputes for five years. The U.S. and U.K. announced a similar agreement on June 17, 2021.

## **Segment Results of Operations and Financial Condition**

### **Commercial Airplanes**

#### **Business Environment and Trends**

**Airline Industry Environment** See Overview to Management's Discussion and Analysis of Financial Condition and Results of Operations for a discussion of the impacts of COVID-19 on the airline industry environment.

**Industry Competitiveness** The industry continues to adjust to the unprecedented COVID-19 shock and subsequent economic impact, government restrictions and new regulations. The commercial airplane market and the airline industry both remain extremely competitive. While the impacts and responses have varied globally, the reduction of demand and disruption in production has adversely impacted most manufacturers in the commercial airplane industry.

Continued access to global markets remains vital to our ability to fully realize our sales potential and long-term investment returns. Approximately 80% of Commercial Airplanes' total backlog, in dollar terms, is with non-U.S. airlines. We face aggressive international competitors who are intent on increasing their market share. They offer competitive products and have access to most of the same customers and suppliers. The grounding of the 737 MAX and the associated suspension of 737 MAX deliveries in multiple jurisdictions significantly reduced our market share with respect to deliveries of single aisle aircraft in 2019, 2020 and 2021 and may provide competitors with an opportunity to obtain more orders and increase market share. With government support, Airbus has historically invested heavily to create a family of products to compete with ours. After the acquisition of a majority share of Bombardier's C Series (now A220) in 2018, Airbus continues to expand in the 100-150 seat transcontinental market. Other competitors are also in different phases of developing commercial jet aircraft. Some of these competitors have historically enjoyed access to government-provided financial support, including "launch aid," which greatly reduces the cost and commercial risks associated with airplane development activities. This has enabled the development of airplanes without broad commercial viability; others to be brought to market more quickly than otherwise possible; and many offered for sale below market-based prices. Competitors continue to make improvements in efficiency, which may result in funding product development, gaining market share and improving earnings. This market environment has resulted in intense pressures on pricing and other competitive factors, and we expect these pressures to continue or intensify in the coming years.

We are focused on improving our products and services and continuing our business transformation efforts, which enhances our ability to compete and positions us for market recovery. We are also focused on taking actions to ensure that Boeing is not harmed by unfair subsidization of competitors.

## Results of Operations

*(Dollars in millions)*

Years ended December 31,	2021	2020	2019
Revenues	<b>\$19,493</b>	\$16,162	\$32,255
% of total company revenues	<b>31%</b>	28%	42%
Loss from operations	<b>(\$6,475)</b>	(\$13,847)	(\$6,657)
Operating margins	<b>(33.2)%</b>	(85.7)%	(20.6)%
Research and development	<b>\$1,140</b>	\$1,385	\$1,956

## Revenues

BCA revenues increased by \$3,331 million in 2021 compared with 2020 primarily due to higher 737 MAX deliveries driven by recertification and return to service in most jurisdictions and the absence of charges for 737 MAX customer considerations which reduced revenues in 2020, partially offset by lower 787 deliveries in 2021.

BCA revenues decreased by \$16,093 million in 2020 compared with 2019 due to lower deliveries primarily driven by the impacts of the COVID-19 pandemic, 787 production issues and the 737 MAX grounding. This was partially offset by lower charges related to estimated potential concessions and other considerations to 737 MAX customers of \$498 million in 2020 compared with \$8,259 million in 2019.

We resumed deliveries of 737 MAX aircraft in December 2020 following rescission by the FAA of its grounding order. As of December 31, 2021, most non-U.S. jurisdictions have approved return to service of the 737 MAX. 787 deliveries have been paused since May 2021. Revenues will continue to be impacted until deliveries of the 737 MAX ramp up, deliveries of the 787 resume and the commercial airline industry recovers from the impacts of COVID-19.



Commercial Airplanes deliveries as of December 31 were as follows:

	737 *	747	767 *	777 †	787	Total
<b>2021</b>						
Cumulative deliveries	<b>7,745</b>	<b>1,567</b>	<b>1,238</b>	<b>1,677</b>	<b>1,006</b>	
Deliveries	<b>263</b> <sup>(16)</sup>	<b>7</b>	<b>32</b> <sup>(13)</sup>	<b>24</b>	<b>14</b>	<b>340</b>
<b>2020</b>						
Cumulative deliveries	7,482	1,560	1,206	1,653	992	
Deliveries	43 <sup>(14)</sup>	5	30 <sup>(11)</sup>	26	53	157
<b>2019</b>						
Cumulative deliveries	7,439	1,555	1,176	1,627	939	
Deliveries	127 <sup>(19)</sup>	7	43 <sup>(23)</sup>	45 <sup>(2)</sup>	158	380

\* Intercompany deliveries identified by parentheses

† Aircraft accounted for as revenues by BCA and as operating leases in consolidation identified by parentheses

### Loss From Operations

BCA loss from operations was \$6,475 million in 2021 compared with \$13,847 million in 2020. The 2021 loss includes a reach-forward loss on the 787 program of \$3,460 million, abnormal production costs related to 737 MAX of \$1,887 million, and abnormal production costs related to the 787 program of \$468 million resulting from continued production issues, inspections and rework, partially offset by higher 737 MAX deliveries. The 2020 loss reflects the reach-forward loss on 777X of \$6,493 million and additional drivers as noted in the paragraph below.

BCA loss from operations was \$13,847 million in 2020 compared with \$6,657 million in 2019. The 2020 loss reflects the reach-forward loss on 777X of \$6,493 million, lower deliveries and lower program margins resulting from the COVID-19 pandemic, \$2,567 million of abnormal production costs related to 737 MAX, \$623 million of severance cost, \$498 million of 737 MAX customer considerations, \$336 million related to 737NG frame fitting component repair costs and \$270 million of abnormal production costs in the first half of 2020 from the temporary suspension of operations in response to COVID-19, partially offset by lower research and development spending. Lower 787 margins reflecting a reduction in the accounting quantity in the first quarter of 2020 also contributed to lower earnings. The 2019 loss primarily reflects the absence of 737 MAX deliveries in the second, third and fourth quarters of 2019 and charges of \$8,259 million for estimated 737 MAX customer considerations.

Lower commercial airplane deliveries and the COVID-19 pandemic will continue to have a significant adverse impact on future earnings and margins until deliveries ramp up and return to historical levels.

### Backlog

Our total backlog represents the estimated transaction prices on unsatisfied and partially satisfied performance obligations to our customers where we believe it is probable that we will collect the consideration due and where no contingencies remain before we and the customer are required to perform. Backlog does not include prospective orders where customer controlled contingencies remain, such as the customer receiving approval from its board of directors, shareholders or government or completing financing arrangements. All such contingencies must be satisfied or have expired prior to recording a new firm order even if satisfying such conditions is highly certain. Backlog excludes options and BCC orders as well as orders where customers have the unilateral right to terminate. A number of our customers may have contractual remedies, including rights to reject individual airplane deliveries if the actual delivery date is significantly later than the contractual delivery date. We address customer

claims and requests for other contractual relief as they arise. The value of orders in backlog is adjusted as changes to price and schedule are agreed to with customers and is reported in accordance with the requirements of ASC 606.

BCA total backlog of \$296,882 million at December 31, 2021 increased from \$281,588 million at December 31, 2020, reflecting new orders in excess of deliveries, increases in projected price escalation and decreases in the number of existing orders that in our assessment do not meet the accounting requirements of ASC 606 for inclusion in backlog, partially offset by aircraft order cancellations. Aircraft order cancellations during the year ended December 31, 2021 totaled \$27,542 million and primarily relate to 737 MAX and 787 aircraft. The net ASC 606 adjustments decreased for the year ended December 31, 2021, which resulted in an increase to backlog of \$3,810 million primarily due to 777X aircraft, partially offset by 787 aircraft. ASC 606 adjustments include consideration of aircraft orders where a customer controlled contingency may exist, as well as an assessment of whether the customer is committed to perform or whether it is probable that the customer will pay the full amount of consideration when it is due. If 787 aircraft deliveries continue to be paused, we are unable to ramp up deliveries of 737 MAX aircraft, and/or if entry into service of the 777X, 737 MAX 7 and/or 737 MAX 10 is further delayed, we may experience additional reductions to backlog and/or significant order cancellations. Additionally, we may continue to experience fewer new orders and increased cancellations across all of our commercial airplane programs as a result of the COVID-19 pandemic and associated impacts on demand.

**Accounting Quantity** The accounting quantity is our estimate of the quantity of airplanes that will be produced for delivery under existing and anticipated contracts. The determination of the accounting quantity is limited by the ability to make reasonably dependable estimates of the revenue and cost of existing and anticipated contracts. It is a key determinant of the gross margins we recognize on sales of individual airplanes throughout a program's life. Estimation of each program's accounting quantity takes into account several factors that are indicative of the demand for that program, including firm orders, letters of intent from prospective customers and market studies. We review our program accounting quantities quarterly.

The accounting quantity for each program may include units that have been delivered, undelivered units under contract and units anticipated to be under contract in the reasonable future (anticipated orders). In developing total program estimates, all of these items within the accounting quantity must be considered.

The following table provides details of the accounting quantities and firm orders by program as of December 31. Cumulative firm orders represent the cumulative number of commercial jet aircraft deliveries plus undelivered firm orders. Firm orders include military derivative aircraft that are not included in program accounting quantities. All revenues and costs associated with military derivative aircraft production are reported in the BDS segment.

	Program						
	737	747	767	777	777X	787	†
<b>2021</b>							
Program accounting quantities	10,400	1,574	1,243	1,750	350	1,500	
Undelivered units under firm orders	3,414	6	108	58	253	411	(14)
Cumulative firm orders	11,159	1,573	1,346	1,735	253	1,417	
<b>2020</b>							
Program accounting quantities	10,000	1,574	1,207	1,700	350	1,500	
Undelivered units under firm orders	3,282	8	75	41	191	458	(22)
Cumulative firm orders	10,764	1,568	1,281	1,694	191	1,450	
<b>2019</b>							
Program accounting quantities	10,400	1,574	1,195	1,690	**	1,600	
Undelivered units under firm orders	4,398	17	94	68	309	520	(29)
Cumulative firm orders	11,837	1,572	1,270	1,695	309	1,459	

† Aircraft ordered by BCC are identified in parentheses.

\*\* See 777 and 777X Programs for discussion of the 777X accounting quantity.

## Program Highlights

**737 Program** The accounting quantity for the 737 program increased by 400 units during 2021 due to the program's normal progress of obtaining additional orders and delivering airplanes. See further discussion of the 737 MAX in Note 13 to our Consolidated Financial Statements.

**747 Program** We are currently producing at a rate of 0.5 aircraft per month. We expect to complete production of the 747 in the second half of 2022. We believe that ending production of the 747 will not have a material impact on our financial position, results of operations or cash flows.

**767 Program** The accounting quantity for the 767 program increased by 36 units during 2021 due to the program's normal progress of obtaining additional orders and delivering airplanes. The 767 assembly line includes the commercial program and a derivative to support the tanker program. The commercial program has near break-even gross margins. We are currently producing at a rate of 3 aircraft per month.

**777 and 777X Programs** The accounting quantity for the 777 program increased by 50 units during 2021 due to the program's normal progress of obtaining additional orders and delivering airplanes. The production rate for the combined 777/777X program is expected to increase from 2 per month to 3 per month in 2022.

In 2013, we launched the 777X-8 and 777X-9, which feature new composite wings, new engines and folding wing-tips. The first flight of the 777X was completed during the first quarter of 2020. In 2021, we began offering the 777X freighter to customers and expect to receive initial orders in 2022.

During the fourth quarter of 2020, we revised the estimated first delivery date of the 777X to late 2023 and recorded a \$6.5 billion reach-forward loss on the 777X program. The revised schedule and reach-

forward loss reflected a number of factors, including an updated assessment of global certification requirements informed by continued discussions with regulators and a management decision in the fourth quarter of 2020 to make modifications to the aircraft's design, an updated assessment of COVID-19 impacts on market demand and discussions with our customers with respect to aircraft delivery timing. These factors resulted in adjustments to production rates and the program accounting quantity, increased change incorporation costs, and associated customer and supply chain impacts. The initial accounting quantity of 350 airplanes established in the fourth quarter of 2020 consists of 777X passenger airplanes and remained unchanged during 2021.

We are working towards reaching Type Inspection Authorization (TIA) which will enable us to begin FAA certification flight testing. The timing of TIA and certification will ultimately be determined by the regulators, and further determinations with respect to anticipated certification requirements could result in additional delays in entry into service and/or additional cost increases.

We continue to anticipate that the first 777X delivery will occur in late 2023. The 777X program has near break-even gross margins at December 31, 2021. The level of profitability on the 777X program will be subject to a number of factors. These factors include continued market uncertainty, the impacts of COVID-19 on our production system as well as impacts on our supply chain and customers, customer negotiations, further production rate adjustments for the 777X or other commercial aircraft programs, contraction of the accounting quantity and potential risks associated with the testing program and the timing of aircraft certification. One or more of these factors could result in additional reach-forward losses on the 777X program in future periods.

**787 Program** During 2020, we experienced significant reductions in deliveries due to the impacts of COVID-19 on our customers as well as production issues and associated rework. During 2021 we delivered 14 aircraft between March 2021 and May 2021 prior to deliveries being paused in May 2021. Deliveries remain paused.

At December 31, 2021 and 2020 we had approximately 110 and 80 aircraft in inventory. We have identified production quality issues, including in our supply chain, which have contributed to the pause in deliveries. In July 2021, we announced that we were reprioritizing production resources to support inspections and rework. We continue to conduct inspections and rework on undelivered aircraft and engage in detailed discussions with the FAA regarding required actions for resuming delivery of the 787. We are currently producing at very low rates and expect that to continue until deliveries resume, gradually returning to 5 per month over time. In the third quarter of 2021, we determined that in the current environment production rates below 5 per month represent abnormally low production rates and result in abnormal production costs, and that inspections and rework costs on inventoried aircraft are excessive and should also be accounted for as abnormal production costs that are required to be expensed as incurred. In the fourth quarter of 2021, we determined that the ongoing rework, as well as our ongoing discussions with the FAA in anticipation of resumption of deliveries, will result in lower production rates longer than previously expected. As a result of these impacts, we expect to incur approximately \$2 billion of abnormal production costs on a cumulative basis with most being incurred by the end of 2023. We continue to work with customers and suppliers regarding timing of future deliveries and production rate changes. We are also continuing to implement changes in the production process designed to ensure that newly-built airplanes meet our specifications and do not require further inspections and rework. During the first quarter of 2021, we consolidated 787 production in South Carolina, in line with our previous assumptions, which did not have a significant financial impact on the program.

During the fourth quarter of 2021, we recorded a loss of \$3.5 billion on the program primarily due to the additional rework, as well as other actions required to resume 787 deliveries, taking longer than

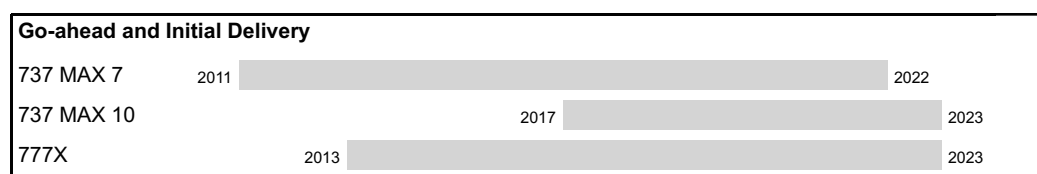


expected. These impacts have resulted in longer than expected delivery delays and associated customer considerations.

The timing of the resumption of deliveries and future production rates will depend upon rework, ongoing customer and supplier engagement, production stability and our activities with the FAA. China is a significant market for the 787 program, and if the program is unable to obtain additional orders from China in future quarters, we may be required to further adjust production rate assumptions. If we are required to further reduce the accounting quantity and/or production rates, experience further delivery delays or experience other factors that result in lower margins, the program could record additional losses and higher abnormal production costs in future periods.

**Fleet Support** We provide the operators of our commercial airplanes with assistance and services to facilitate efficient and safe airplane operation. Collectively known as fleet support services, these activities and services begin prior to airplane delivery and continue throughout the operational life of the airplane. They include flight and maintenance training, field service support, engineering services, information services and systems and technical data and documents. The costs for fleet support are expensed as incurred and have historically been approximately 1% of total consolidated costs of products and services.

**Program Development** The following chart summarizes the time horizon between go-ahead and planned initial delivery for major Commercial Airplanes derivatives and programs.



Reflects models in development during 2021

The development schedules shown above are subject to a number of uncertainties, including changes in certification requirements. The timing of certifications will ultimately be determined by the regulators.

### Additional Considerations

The development and ongoing production of commercial aircraft is extremely complex, involving extensive coordination and integration with suppliers and highly-skilled labor from employees and other partners. Meeting or exceeding our performance and reliability standards, as well as those of customers and regulators, can be costly and technologically challenging, such as the 787 production issues and associated rework. In addition, the introduction of new aircraft and derivatives, such as the 777X and 737 MAX derivatives, involves increased risks associated with meeting development, production and certification schedules. These challenges include increased global regulatory scrutiny of all development aircraft in the wake of the 737 MAX accidents. As a result, our ability to deliver aircraft on time, satisfy performance and reliability standards and achieve or maintain, as applicable, program profitability is subject to significant risks. Factors that could result in lower margins (or a material charge if an airplane program has or is determined to have reach-forward losses) include the following: changes to the program accounting quantity, customer and model mix, production costs and rates, changes to price escalation factors due to changes in the inflation rate or other economic indicators, performance or reliability issues involving completed aircraft, capital expenditures and other costs associated with increasing or adding new production capacity, learning curve, additional change incorporation, achieving anticipated cost reductions, the addition of regulatory requirements in connection with certification in one or more jurisdictions, flight test and certification schedules, costs, schedule and demand for new airplanes and derivatives and status of customer claims, supplier claims or assertions and other contractual negotiations. While we believe the cost and revenue estimates

incorporated in the consolidated financial statements are appropriate, the technical complexity of our airplane programs creates financial risk as additional completion costs may become necessary or scheduled delivery dates could be extended, which could trigger termination provisions, order cancellations or other financially significant exposure.

## Defense, Space & Security

### Business Environment and Trends

#### United States Government Defense Environment Overview

In May 2021, the U.S. government released the President's budget request for fiscal year 2022 (FY22), which included \$715 billion in funding for the United States Department of Defense (U.S. DoD), \$25 billion in funding for the National Aeronautics and Space Administration (NASA) and \$19 billion for the FAA. While the President's budget request for FY22 includes funding for a majority of Boeing's programs, it did not include funding for F/A-18 Super Hornet, P-8 Poseidon and CH-47F Block II production aircraft. While there is continued congressional support for F/A-18 and CH-47F Block II production aircraft for FY22, there is ongoing uncertainty with respect to these and other program-level appropriations for FY22 and future fiscal years. These programs also continue to pursue non-U.S. sales opportunities.

In December 2021, Congress passed and the President signed the National Defense Authorization Act for FY22, which authorizes a U.S. DoD budget \$25 billion higher than the budget request. A CR, enacted on December 3, 2021, continues funding for the federal government at FY21 appropriated levels through February 18, 2022. Congress and the President must enact either full-year FY22 appropriations bills or an additional CR to fund government departments and agencies beyond February 18, 2022 or a government shutdown could result, which may impact the Company's operations. Alternatively, Congress may continue to fund the federal government through one or more additional CRs, however, this would continue to restrict the execution of certain program activities and delay new programs or competitions.

Accordingly, there continues to be uncertainty with respect to program-level appropriations for the U.S. DoD and other government agencies, including NASA, for FY22 and beyond. Future budget cuts or investment priority changes, including changes associated with the authorizations and appropriations process, could result in reductions, cancellations and/or delays of existing contracts or programs. Any of these impacts could have a material effect on our results of operations, financial position and/or cash flows.

**Non-U.S. Defense Environment Overview** The non-U.S. market continues to be driven by complex and evolving security challenges and the need to modernize aging equipment and inventories. BDS expects that it will continue to have a wide range of opportunities across Asia, Europe and the Middle East given the diverse regional threats. At the end of 2021, 33% of BDS backlog was attributable to non-U.S. customers.

### Results of Operations

*(Dollars in millions)*

Years ended December 31,	2021	2020	2019
Revenues	<b>\$26,540</b>	\$26,257	\$26,095
% of total company revenues	<b>43 %</b>	45 %	34 %
Earnings from operations	<b>\$1,544</b>	\$1,539	\$2,615
Operating margins	<b>5.8 %</b>	5.9 %	10.0 %

Since our operating cycle is long-term and involves many different types of development and production contracts with varying delivery and milestone schedules, the operating results of a particular period may not be indicative of future operating results. In addition, depending on the customer and their funding sources, our orders might be structured as annual follow-on contracts, or as one large multi-year order or long-term award. As a result, period-to-period comparisons of backlog are not necessarily indicative of future workloads. The following discussions of comparative results among periods should be viewed in this context.

Deliveries of units for new-build production aircraft, including remanufactures and modifications were as follows:

Years ended December 31,	2021	2020	2019
F/A-18 Models	21	20	23
F-15 Models	16	4	11
C-17 Globemaster III			1
CH-47 Chinook (New)	15	27	13
CH-47 Chinook (Renewed)	5	3	22
AH-64 Apache (New)	27	19	37
AH-64 Apache (Remanufactured)	56	52	74
KC-46 Tanker	13	14	28
P-8 Models	16	15	18
C-40A			2
<b>Total</b>	<b>169</b>	<b>154</b>	<b>229</b>

## Revenues

BDS revenues in 2021 increased by \$283 million compared with 2020 primarily due to higher revenue on the KC-46A Tanker program due to new orders for 27 aircraft received during the first quarter of 2021 and lower charges in 2021. This was partially offset by lower revenues on rotorcraft programs, Commercial Crew and VC-25B. Cumulative contract catch-up adjustments in 2021 were \$56 million less unfavorable than the prior year, largely due to the lower charges described below.

BDS revenues in 2020 increased by \$162 million compared with 2019 reflecting higher revenues from fighter aircraft, Space Launch System, B-52 upgrades, proprietary and MQ-25, partially offset by reduced volume in missile defense. These net increases were offset by the unfavorable impact of cumulative contract catch-up adjustments, which were \$312 million higher than the comparable period in the prior year, largely due to the KC-46A Tanker charges during 2020.

## Earnings From Operations

BDS earnings from operations in 2021 increased by \$5 million compared with 2020 primarily due to less unfavorable impacts from cumulative contract catch-up adjustments, which improved \$219 million from the prior year, largely due to lower KC-46A Tanker charges in 2021 compared to 2020 and other charges in development programs described below. The favorable change in cumulative contract catch-up adjustments was offset primarily by lower volume and mix on rotorcraft programs and lower equity earnings for United Launch Alliance (ULA).

During the fourth quarter of 2021, BDS increased the reach-forward loss on the KC-46A Tanker program by \$402 million primarily due to continued disruption in the factory and in the supply chain, including impacts of COVID-19, and an increase in costs to complete the new Remote Vision System as the customer's requirements definition has evolved. In 2020, we recorded an additional reach-forward loss of \$1,320 million on the KC-46A Tanker program reflecting \$551 million of costs associated

with the agreement signed in April 2020 with the U.S. Air Force to develop and integrate the new Remote Vision System, and costs for production inefficiencies including impacts of COVID-19 disruption.

During the third quarter of 2021, we increased the reach-forward loss on Commercial Crew by \$185 million driven by the delay in the second uncrewed Orbital Flight Test now anticipated in 2022 and the latest assessment of remaining work.

During the first quarter of 2021, we increased the reach-forward loss on VC-25B by \$318 million, which was largely due to COVID-19 impacts and performance issues at a key supplier. The \$168 million reach-forward loss in the first quarter of 2020 on VC-25B was associated with engineering inefficiencies from the COVID-19 environment.

BDS earnings from operations in 2020 decreased by \$1,076 million compared with 2019 primarily due to the unfavorable impact of cumulative contract catch-up adjustments, which were \$828 million higher than the prior year, largely due to higher charges in 2020 of \$1,320 million on KC-46A Tanker and \$168 million on VC-25B, offset by \$489 million in charges on Commercial Crew in 2019. The lower earnings in 2020 also reflect lower gains on property sales compared to the same period in 2019. These current period decreases were partially offset by the volume increases described above.

BDS earnings from operations includes our share of income or loss from equity method investments of \$53 million, \$141 million and \$128 million primarily from our ULA and non-U.S. joint ventures in 2021, 2020 and 2019, respectively.

## **Backlog**

Total backlog of \$59,828 million at December 31, 2021 was \$1,019 million lower than December 31, 2020 due to the timing of awards and revenue recognized.

## **Additional Considerations**

Our BDS business includes a variety of development programs which have complex design and technical challenges. Many of these programs have cost-type contracting arrangements. In these cases, the associated financial risks are primarily in reduced fees, lower profit rates or program cancellation if cost, schedule or technical performance issues arise. Examples of these programs include Ground-based Midcourse Defense, Proprietary and Space Launch System programs.

Some of our development programs are contracted on a fixed-price basis, and BDS customers are increasingly seeking fixed-price proposals for new programs. Examples of significant fixed-price development programs include Commercial Crew, KC-46A Tanker, MQ-25, T-7A Red Hawk, VC-25B, and commercial and military satellites. A number of our ongoing fixed-price development programs have reach-forward losses. New programs could also have risk for reach-forward loss upon contract award and during the period of contract performance. Many development programs have highly complex designs. As technical or quality issues arise during development, we may experience schedule delays and cost impacts, which could increase our estimated cost to perform the work or reduce our estimated price, either of which could result in a material charge or otherwise adversely affect our financial condition. These programs are ongoing, and while we believe the cost and fee estimates incorporated in the financial statements are appropriate, the technical complexity of these programs creates financial risk as additional completion costs may become necessary or scheduled delivery dates could be extended, which could trigger termination provisions, the loss of satellite in-orbit incentive payments or other financially significant exposure. Risk remains that we may be required to record additional reach-forward losses in future periods.



## Global Services

### Business Environment and Trends

The aerospace markets we serve include parts distribution, logistics and other inventory services; maintenance, engineering and upgrades; training and professional services; and information services. Prior to COVID-19, we had expected the market to grow by around 3.5% annually, however, the pandemic is having a direct impact on our commercial services business. See Overview to Management's Discussion and Analysis of Financial Condition and Results of Operations for a discussion of the impacts of COVID-19 on the airline industry environment.

Over the long-term, as the size of the worldwide commercial airline fleet continues to grow, so does demand for aftermarket services designed to increase efficiency and extend the economic lives of airplanes. Airlines are using data analytics to plan flight operations and predictive maintenance to improve their productivity and efficiency. Airlines continue to look for opportunities to reduce the size and cost of their spare parts inventory, frequently outsourcing spares management to third parties.

The demand outlook for our government services business has remained stable in 2021. Government services market segments are growing on pace with related fleets, but vary based on the utilization and age of the aircraft. The U.S. government services market is the single largest individual market, comprising over 50 percent of the government services markets served. Over the next decade, we expect U.S. growth to remain flat and non-U.S. fleets, led by Middle East and Asia Pacific customers, to add rotorcraft and commercial derivative aircraft at the fastest rates. We expect less than 20 percent of the worldwide fleet of military aircraft to be retired and replaced over the next ten years, driving increased demand for services to maintain aging aircraft and enhance aircraft capability.

BGS' major customer, the U.S. government, remains subject to the spending limits and uncertainty described on page 39, which could restrict the execution of certain program activities and delay new programs or competitions.

**Industry Competitiveness** Aviation services is a competitive market with many domestic and international competitors. This market environment has resulted in intense pressures on pricing, and we expect these pressures to continue or intensify in the coming years. Continued access to global markets remains vital to our ability to fully realize our sales growth potential and long-term investment returns.

### Results of Operations

*(Dollars in millions)*

Years ended December 31,	2021	2020	2019
Revenues	<b>\$16,328</b>	\$15,543	\$18,468
% of total company revenues	<b>26 %</b>	27 %	24 %
Earnings from operations	<b>\$2,017</b>	\$450	\$2,697
Operating margins	<b>12.4 %</b>	2.9 %	14.6 %

### Revenues

BGS revenues in 2021 increased by \$785 million compared with 2020 due to higher commercial and government services volume. While commercial services volume is recovering, it remains below pre-pandemic levels. The net favorable impact of cumulative contract catch-up adjustments in 2021 was \$37 million lower than the comparable period in the prior year. We expect the impacts of the COVID-19 pandemic to continue to have an adverse impact on BGS commercial revenues in future quarters until the commercial airline industry environment fully recovers.

BGS revenues in 2020 decreased by \$2,925 million compared with 2019 due to lower commercial services revenue driven by impacts of the COVID-19 pandemic. The favorable impact of cumulative contract catch-up adjustments in 2020 was \$101 million lower than the comparable period in the prior year.

### **Earnings From Operations**

BGS earnings from operations in 2021 increased by \$1,567 million compared with 2020, primarily due to charges incurred in 2020 driven by impacts of the COVID-19 pandemic as well as higher commercial services volume in 2021, partially offset by an inventory write-down of \$220 million recognized in the fourth quarter of 2021 driven by revised cost estimates on certain customer contracts. Charges in 2020 included \$531 million of inventory write-downs, \$178 million of related impairments of distribution rights primarily driven by airlines' decisions to retire certain aircraft, \$398 million for higher expected credit losses primarily driven by customer liquidity issues, \$115 million of contract termination and facility impairment charges, and \$72 million of severance costs. The net favorable impact of cumulative contract catch-up adjustments in 2021 was \$98 million lower than the prior year.

BGS earnings from operations in 2020 decreased by \$2,247 million compared with 2019, primarily due to lower commercial services revenue as well as the 2020 earnings charges described in the previous paragraph. The favorable impact of cumulative contract catch-up adjustments in 2020 was consistent with the prior year.

### **Backlog**

BGS total backlog of \$20,496 million at December 31, 2021 decreased by 1% from \$20,632 million at December 31, 2020, primarily due to revenue recognized on contracts awarded in prior years.

### **Boeing Capital**

#### **Business Environment and Trends**

BCC's gross customer financing and investment portfolio at December 31, 2021 totaled \$1,734 million. A substantial portion of BCC's portfolio is composed of customers that have less than investment-grade credit. BCC's portfolio is also concentrated by varying degrees across Boeing aircraft product types, most notably 717 and 747-8 aircraft.

BCC provided customer financing of \$14 million during 2020 and none during 2021. While we may be required to fund a number of new aircraft deliveries in 2021 and/or provide refinancing for existing bridge debt, we expect alternative financing will be available at reasonable prices from broad and globally diverse sources.

Aircraft values and lease rates are impacted by the number and type of aircraft that are currently out of service. Approximately 5,300 western-built commercial jet aircraft (20.5% of current world fleet) were parked at the end of 2021, including both in-production and out-of-production aircraft types. Of these parked aircraft, a larger portion are expected to be retired compared to the pre-COVID-19 period, which directly impacts the Company in terms of number of new aircraft deliveries and financing opportunities, the ability of existing customers to meet current payment obligations and the value of aircraft in its portfolio. We continue to work closely with our customers to mitigate the risk. At the end of 2020 and 2019, 29.4% and 8.5% of the western-built commercial jet aircraft were parked. Aircraft valuations could decline if significant numbers of additional aircraft, particularly types with relatively few operators, are placed out of service. See Overview to Management's Discussion and Analysis of Financial Condition and Results of Operations for a discussion of the impacts of COVID-19 on the airline industry environment.

## Results of Operations

(Dollars in millions)

Years ended December 31,	2021	2020	2019
Revenues	\$272	\$261	\$244
Earnings from operations	\$106	\$63	\$28
Operating margins	39 %	24 %	11 %

### Revenues

BCC segment revenues consist principally of lease income from equipment under operating lease, interest income from financing receivables and notes, and other income. BCC's revenues in 2021 increased by \$11 million compared with 2020, and revenues in 2020 increased by \$17 million compared with 2019 primarily due to gains on re-lease of assets, partially offset by portfolio run-off.

### Earnings From Operations

BCC's earnings from operations are presented net of interest expense, provision for (recovery of) losses, asset impairment expense, depreciation on leased equipment and other operating expenses. Earnings from operations in 2021 increased by \$43 million compared with 2020 primarily due to higher revenues, lower provision for losses, and lower interest and asset impairment expenses. Earnings from operations in 2020 increased by \$35 million compared with 2019 primarily due to higher revenues, lower asset impairment expenses and lower interest expenses.

### Financial Position

The following table presents selected financial data for BCC as of December 31:

(Dollars in millions)	2021	2020
Customer financing and investment portfolio, net	\$1,720	\$1,961
Other assets, primarily cash and short-term investments	462	402
<b>Total assets</b>	<b>\$2,182</b>	<b>\$2,363</b>
Other liabilities, primarily income taxes	\$347	\$392
Debt, including intercompany loans	1,525	1,640
Equity	310	331
<b>Total liabilities and equity</b>	<b>\$2,182</b>	<b>\$2,363</b>
<b>Debt-to-equity ratio</b>	<b>4.9-to-1</b>	<b>5-to-1</b>

BCC's customer financing and investment portfolio at December 31, 2021 decreased from December 31, 2020, primarily due to \$241 million of note payoffs and portfolio run-off.

BCC enters into certain transactions with other Boeing segments, reflected in Unallocated items, eliminations and other, in the form of intercompany guarantees and other subsidies that mitigate the effects of certain credit quality or asset impairment issues on the BCC segment.

## Liquidity and Capital Resources

### Cash Flow Summary

(Dollars in millions)

Years ended December 31,	2021	2020	2019
Net loss	(\$4,290)	(\$11,941)	(\$636)
Non-cash items	7,851	10,866	2,819
Changes in assets and liabilities	(6,977)	(17,335)	(4,629)
Net cash used by operating activities	(3,416)	(18,410)	(2,446)
Net cash provided/(used) by investing activities	9,324	(18,366)	(1,530)
Net cash (used)/provided by financing activities	(5,600)	34,955	5,739
Effect of exchange rate changes on cash and cash equivalents	(39)	85	(5)
Net increase/(decrease) in cash & cash equivalents, including restricted	269	(1,736)	1,758
Cash & cash equivalents, including restricted, at beginning of year	7,835	9,571	7,813
Cash & cash equivalents, including restricted, at end of year	\$8,104	\$7,835	\$9,571

**Operating Activities** Net cash used by operating activities was \$3.4 billion during 2021, compared with \$18.4 billion during 2020 and \$2.4 billion during 2019. The reduction in cash used by operating activities in 2021 compared with 2020 is primarily driven by lower net loss and improved changes in assets and liabilities. Non-cash items in 2021 include the \$3.5 billion reach-forward loss on the 787 program which was recorded as a reduction to inventory, as well as \$1.2 billion of treasury shares issued to fund Company contributions to the 401(k) plan and \$0.8 billion of share-based plans expense reflecting a one-time stock grant to most employees in lieu of 2021 salary increases. The changes in assets and liabilities reflect the significant increase in commercial airplane inventory in 2020 driven by lower deliveries due to the COVID-19 pandemic and the 737 MAX grounding. In 2021, inventory growth slowed as the continued buildup of 787 aircraft caused by production issues and 777X inventory growth was partially offset by a decrease in 737 MAX inventory following the resumption of deliveries. Compensation payments to 737 MAX customers totaled \$2.5 billion and \$2.2 billion in 2021 and 2020. In the first quarter of 2021, we paid \$0.7 billion consistent with the terms of the Deferred Prosecution Agreement between Boeing and the U.S. Department of Justice. Additionally, in 2021, we received income tax refunds of \$1.7 billion. Cash provided by Advances and progress billings was \$2.5 billion in 2021, as compared with Cash used by Advances and progress billings of \$1.1 billion in 2020. The pause in 787 deliveries and the residual impacts of the 737 MAX grounding are expected to continue to have a significant impact on our operating cash flows until 787 deliveries resume and 737 MAX deliveries ramp up.

The decrease in operating cash flows in 2020 compared to 2019 is primarily driven by our net loss in 2020 and changes in assets and liabilities, partially offset by an increase in non-cash items. Non-cash items include the \$6.5 billion reach-forward loss on the 777X program in 2020, which was recorded as a reduction to inventory. The year-over-year increase in non-cash items also reflects higher inventory write-downs and higher allowances for expected credit losses in 2020. The changes in assets and liabilities reflect increases in commercial airplane inventory due to the large number of undelivered aircraft in 2019 resulting from the 737 MAX grounding, and in 2020 due to the 737 MAX grounding, 787 production issues and COVID-19 impacts. Cash used by Advances and progress billings was \$1.1 billion in 2020, as compared with \$0.7 billion provided by Advances and progress billings in 2019. The changes in assets and liabilities in 2020 also reflect lower accounts payable due to reductions in commercial purchases from suppliers and lower supply chain financing. Compensation payments to 737 MAX customers totaled \$2.2 billion during 2020 and \$1.2 billion during 2019. The accrued liability

for 737 MAX customer considerations at December 31, 2019 resulted in a \$7.4 billion favorable change to assets and liabilities in 2019.

Payables to suppliers who elected to participate in supply chain financing programs declined by \$1.5 billion and \$1.9 billion for the years ended December 31, 2021 and 2020, and increased by \$2.6 billion in 2019. Supply chain financing is not material to our overall liquidity. The declines for the years ended December 31, 2021 and 2020 were primarily due to reductions in commercial purchases from suppliers. The increase for the year ended December 31, 2019 reflects a combination of higher purchases, an extension of payment terms with certain suppliers and increased utilization of our supply chain financing programs.

**Investing Activities** Cash provided by investing activities during 2021 was \$9.3 billion, compared with cash used by investing activities of \$18.4 billion and \$1.5 billion during 2020 and 2019. The increase in cash inflows in 2021 compared to 2020 is primarily due to \$27.1 billion of higher net proceeds from investments. The increase in cash outflows in 2020 compared to 2019 is primarily due to \$17.4 billion of higher net contributions to investments. Net proceeds from investments were \$9.8 billion in 2021, compared with net contributions to investments of \$17.3 billion in 2020 and net proceeds from investments of \$0.1 billion in 2019. Capital expenditures totaled \$1.0 billion in 2021, compared with \$1.3 billion in 2020 and \$1.8 billion in 2019. We reduced our capital expenditures in 2021 and 2020 as we managed our liquidity throughout the pandemic and 737 MAX grounding. We expect capital expenditures in 2022 to be higher than in 2021.

**Financing Activities** Cash used by financing activities was \$5.6 billion during 2021, compared with cash provided by financing activities of \$35.0 billion during 2020 and \$5.7 billion in 2019. The decrease of \$40.6 billion compared with 2020 primarily reflects net debt repayments in 2021 compared with net borrowings in 2020. The increase of \$29.3 billion in 2020 compared with 2019 primarily reflects higher net borrowings, lower share repurchases and lower dividend payments, which reflects the Company's decision in March 2020 to suspend the declaration or payment of dividends until further notice. During the twelve months ended December 31, 2021, debt repayments net of new borrowings were \$5.6 billion, primarily due to \$13.8 billion of repayments of our two-year delayed draw term loan credit agreement, partially offset by \$9.8 billion of fixed rate senior notes issued in the first quarter of 2021. During the twelve months ended December 31, 2020, new borrowings net of repayments were \$36.3 billion, primarily due to \$29.9 billion of fixed rate senior notes issued in 2020 and \$13.8 billion of new borrowings under a two-year delayed draw term loan agreement entered into in the first quarter of 2020. During the twelve months ended December 31, 2019, new borrowings net of repayments were \$13.2 billion, primarily due to the issuance of \$10.5 billion of fixed rate senior notes in 2019. For further discussion see Liquidity Matters in Note 1 to our Consolidated Financial Statements.

At December 31, 2021 and 2020 debt balances totaled \$58.1 billion and \$63.6 billion, of which \$1.3 billion and \$1.7 billion were classified as short-term. This included \$1.5 billion and \$1.6 billion of debt attributable to BCC at December 31, 2021 and 2020, of which \$0.3 billion and \$0.9 billion were classified as short-term.

During the years ended December 31, 2021 and 2020, we did not repurchase any shares through our open market share repurchase program compared to repurchases of 6.9 million shares in 2019 totaling \$2.7 billion. Share repurchases under this plan have been suspended since April 2019. In March 2020, the Board of Directors terminated its prior authorization to repurchase shares of the Company's outstanding common stock. We had 0.3 million, 0.6 million and 0.6 million shares transferred to us from employee tax withholdings in 2021, 2020 and 2019, respectively. During the year ended December 31, 2021, we paid no dividends, compared with \$1.2 billion and \$4.6 billion in 2020 and 2019. In March 2020, the Company announced that our dividend will be suspended until further notice.



**Capital Resources** The impacts of the COVID-19 pandemic, 787 production issues and associated rework, and residual impacts of the 737 MAX grounding are having a significant negative impact on our liquidity and ongoing operations and creating significant uncertainty. We have and are continuing to take significant actions to manage and preserve our liquidity. For further discussion see Liquidity Matters in Note 1 to our Consolidated Financial Statements.

The following table summarizes certain cash requirements for known contractual and other obligations as of December 31, 2021, and the estimated timing thereof. See Note 12 for future operating lease payments.

<i>(Dollars in millions)</i>	Current	Long-term	Total
Long-term debt (including current portion)	\$1,300	\$57,389	\$58,689
Interest on debt	2,365	33,658	36,023
Pension and other postretirement	594	4,100	4,694
Purchase obligations	53,041	53,702	106,743
737 MAX customer concessions and consideration <sup>(1)</sup>	800	200	1,000

<sup>(1)</sup> For further discussion, see Note 13 to our Consolidated Financial Statements.

We expect to be able to fund our cash requirements through cash and short-term investments and cash provided by operations, as well as continued access to capital markets. At December 31, 2021, we had \$8.1 billion of cash, \$8.2 billion of short-term investments, and \$14.7 billion of unused borrowing capacity on revolving credit line agreements. We anticipate that these revolving credit lines will remain undrawn and primarily serve as backup liquidity to support our general corporate borrowing needs. Of the \$14.7 billion of unused borrowing capacity, \$6.3 billion expires in October 2022, \$5.3 billion expires in March 2023 and \$3.2 billion expires in October 2024.

Our debt balances have increased significantly since 2019, and we are continuing to actively manage our liquidity. In 2021, we repaid \$13.8 billion that was outstanding under our two-year delayed draw term loan credit agreement that had a final maturity date of February 6, 2022.

Our increased debt balance resulted in downgrades to our credit ratings in 2020, and our ratings remained unchanged in 2021. We expect to be able to access capital markets when we require additional funding in order to pay off existing debt, address further impacts to our business related to market developments, fund outstanding financing commitments or meet other business requirements. A number of factors could cause us to incur increased borrowing costs and to have greater difficulty accessing public and private markets for debt. These factors include disruptions or declines in the global capital markets and/or a decline in our financial performance, outlook or credit ratings, including impacts described above related to the COVID-19 pandemic and/or associated changes in demand for our products and services. These risks will be particularly acute if we are subject to further credit rating downgrades. The occurrence of any or all of these events may adversely affect our ability to fund our operations and financing or contractual commitments.

Any future borrowings may affect our credit ratings and are subject to various debt covenants. At December 31, 2021, we were in compliance with the covenants for our debt and credit facilities. The most restrictive covenants include a limitation on mortgage debt and sale and leaseback transactions as a percentage of consolidated net tangible assets (as defined in the credit agreements) and a limitation on consolidated debt as a percentage of total capital (as defined in the credit agreements). When considering debt covenants, we continue to have substantial borrowing capacity.

**Pension and Other Postretirement Benefits** Pension cash requirements are based on an estimate of our minimum funding requirements, pursuant to Employee Retirement Income Security Act (ERISA) regulations, although we may make additional discretionary contributions. Estimates of other postretirement benefits are based on both our estimated future benefit payments and the estimated contributions to plans that are funded through trusts.

At December 31, 2021 and 2020, our pension plans were \$7.8 billion and \$13.7 billion underfunded as measured under Generally Accepted Accounting Principles in the United States of America (GAAP). On an ERISA basis our plans are more than 100% funded at December 31, 2021. We do not expect to make significant contributions to our pension plans in 2022. We may be required to make higher contributions to our pension plans in future years.

In the fourth quarter of 2020, we contributed \$3 billion of our common stock to our pension fund. In the fourth quarter of 2020, we also began using our common stock in lieu of cash to fund Company contributions to our 401(k) plans for the foreseeable future. Under this approach, common stock is contributed to our 401(k) plans following each pay period. We expect this measure to further enable the Company to conserve cash. We have retained an independent fiduciary to manage and liquidate stock contributed to these plans at its discretion.

**Purchase Obligations** Purchase obligations represent contractual agreements to purchase goods or services that are legally binding; specify a fixed, minimum or range of quantities; specify a fixed, minimum, variable or indexed price provision; and specify approximate timing of the transaction. Purchase obligations include amounts recorded as well as amounts that are not recorded on the Consolidated Statements of Financial Position.

Purchase obligations not recorded on the Consolidated Statements of Financial Position include agreements for inventory procurement, tooling costs, electricity and natural gas contracts, property, plant and equipment, customer financing equipment and other miscellaneous production related obligations. The most significant obligation relates to inventory procurement contracts. We have entered into certain significant inventory procurement contracts that specify determinable prices and quantities, and long-term delivery timeframes. In addition, we purchase raw materials on behalf of our suppliers. These agreements require suppliers and vendors to be prepared to build and deliver items in sufficient time to meet our production schedules. The need for such arrangements with suppliers and vendors arises from the extended production planning horizon for many of our products. A significant portion of these inventory commitments is supported by firm contracts with customers and/or has historically resulted in settlement through reimbursement from customers for penalty payments to the supplier should the customer not take delivery. These amounts are also included in our forecasts of costs for program and contract accounting. Some inventory procurement contracts may include escalation adjustments. In these limited cases, we have included our best estimate of the effect of the escalation adjustment in the amounts disclosed in the table above.

Purchase obligations recorded on the Consolidated Statements of Financial Position primarily include accounts payable and certain other current and long-term liabilities including accrued compensation.

We have entered into various industrial participation agreements with certain customers outside of the U.S. to facilitate economic flow back and/or technology or skills transfer to their businesses or government agencies as the result of their procurement of goods and/or services from us. These commitments may be satisfied by our local operations there, placement of direct work or vendor orders for supplies, opportunities to bid on supply contracts, transfer of technology or other forms of assistance. However, in certain cases, our commitments may be satisfied through other parties (such as our vendors) who purchase supplies from our non-U.S. customers. In certain cases, penalties could be imposed if we do not meet our industrial participation commitments. During 2021, we incurred no such penalties. As of December 31, 2021, we have outstanding industrial participation agreements

totaling \$25.5 billion that extend through 2034. Purchase order commitments associated with industrial participation agreements are included in purchase obligations in the table above. To be eligible for such a purchase order commitment from us, a non-U.S. supplier must have sufficient capability to meet our requirements and must be competitive in cost, quality and schedule.

**Off-Balance Sheet Arrangements** We are a party to certain off-balance sheet arrangements including certain guarantees. For discussion of these arrangements, see Note 14 to our Consolidated Financial Statements.

### Commercial Commitments

The following table summarizes our commercial commitments outstanding as of December 31, 2021.

<i>(Dollars in millions)</i>	Total Amounts Committed/ Maximum Amount of Loss	Less than 1 year	1-3 years	4-5 years	After 5 years
Standby letters of credit and surety bonds	\$3,634	\$1,969	\$1,451	\$60	\$154
Commercial aircraft financing commitments	12,905	2,034	6,094	2,904	1,873
Total commercial commitments	\$16,539	\$4,003	\$7,545	\$2,964	\$2,027

Commercial aircraft financing commitments include commitments to provide financing related to aircraft on order, under option for deliveries or proposed as part of sales campaigns or refinancing with respect to delivered aircraft, based on estimated earliest potential funding dates. Customer financing commitments totaled \$12.9 billion and \$11.5 billion at December 31, 2021 and 2020. The increase relates to new financing commitments. We anticipate that we will not be required to fund a significant portion of our financing commitments as we continue to work with third party financiers to provide alternative financing to customers. Historically, we have not been required to fund significant amounts of outstanding commitments. However, there can be no assurances that we will not be required to fund greater amounts than historically required. See Note 13 to our Consolidated Financial Statements.

### Contingent Obligations

We have significant contingent obligations that arise in the ordinary course of business, which include the following:

**Legal** Various legal proceedings, claims and investigations are pending against us. Legal contingencies are discussed in Note 21 to our Consolidated Financial Statements.

**Environmental Remediation** We are involved with various environmental remediation activities and have recorded a liability of \$605 million at December 31, 2021. For additional information, see Note 13 to our Consolidated Financial Statements.

### Non-GAAP Measures

#### Core Operating Earnings, Core Operating Margin and Core Earnings Per Share

Our Consolidated Financial Statements are prepared in accordance with GAAP which we supplement with certain non-GAAP financial information. These non-GAAP measures should not be considered in isolation or as a substitute for the related GAAP measures, and other companies may define such measures differently. We encourage investors to review our financial statements and publicly-filed reports in their entirety and not to rely on any single financial measure. Core operating earnings, core operating margin and core earnings per share exclude the FAS/CAS service cost adjustment. The FAS/

CAS service cost adjustment represents the difference between the Financial Accounting Standards (FAS) pension and postretirement service costs calculated under GAAP and costs allocated to the business segments. Core earnings per share excludes both the FAS/CAS service cost adjustment and non-operating pension and postretirement expenses. Non-operating pension and postretirement expenses represent the components of net periodic benefit costs other than service cost. Pension costs, comprising service and prior service costs computed in accordance with GAAP are allocated to BCA and certain BGS businesses supporting commercial customers. Pension costs allocated to BDS and BGS businesses supporting government customers are computed in accordance with U.S. Government Cost Accounting Standards (CAS), which employ different actuarial assumptions and accounting conventions than GAAP. CAS costs are allocable to government contracts. Other postretirement benefit costs are allocated to all business segments based on CAS, which is generally based on benefits paid.

The Pension FAS/CAS service cost adjustments recognized in Loss from operations were benefits of \$882 million in 2021, \$1,024 million in 2020 and \$1,071 million in 2019. The lower benefits in 2021 were primarily due to reductions in allocated pension cost year over year. The non-operating pension expense included in Other income, net was a benefit of \$528 million in 2021, \$340 million in 2020 and \$374 million in 2019. The higher benefits in 2021 were primarily due to lower interest cost and higher expected return on plan assets, partially offset by higher amortization of actuarial losses and higher settlement charges. The benefits in 2020 and 2019 reflect expected returns in excess of interest cost and amortization of actuarial losses.

For further discussion of pension and other postretirement costs, see the Management's Discussion and Analysis on page 29 of this Form 10-K and see Note 22 to our Consolidated Financial Statements. Management uses core operating earnings, core operating margin and core earnings per share for purposes of evaluating and forecasting underlying business performance. Management believes these core earnings measures provide investors additional insights into operational performance as unallocated pension and other postretirement benefit cost primarily represent costs driven by market factors and costs not allocable to U.S. government contracts.

## Reconciliation of GAAP Measures to Non-GAAP Measures

The table below reconciles the non-GAAP financial measures of core operating earnings, core operating margin and core earnings per share with the most directly comparable GAAP financial measures of earnings from operations, operating margins and diluted earnings per share.

*(Dollars in millions, except per share data)*

Years ended December 31,	2021	2020	2019
Revenues	<b>\$62,286</b>	\$58,158	\$76,559
Loss from operations, as reported	<b>(\$2,902)</b>	(\$12,767)	(\$1,975)
Operating margins	<b>(4.7)%</b>	(22.0)%	(2.6)%
Pension FAS/CAS service cost adjustment <sup>(1)</sup>	<b>(\$882)</b>	(\$1,024)	(\$1,071)
Postretirement FAS/CAS service cost adjustment <sup>(1)</sup>	<b>(291)</b>	(359)	(344)
FAS/CAS service cost adjustment <sup>(1)</sup>	<b>(\$1,173)</b>	(\$1,383)	(\$1,415)
Core operating loss (non-GAAP)	<b>(\$4,075)</b>	(\$14,150)	(\$3,390)
Core operating margins (non-GAAP)	<b>(6.5)%</b>	(24.3)%	(4.4)%
Diluted loss per share, as reported	<b>(\$7.15)</b>	(\$20.88)	(\$1.12)
Pension FAS/CAS service cost adjustment <sup>(1)</sup>	<b>(1.50)</b>	(1.80)	(1.89)
Postretirement FAS/CAS service cost adjustment <sup>(1)</sup>	<b>(0.49)</b>	(0.63)	(0.61)
Non-operating pension expense <sup>(2)</sup>	<b>(0.91)</b>	(0.60)	(0.66)
Non-operating postretirement expense <sup>(2)</sup>		0.03	0.19
Provision for deferred income taxes on adjustments <sup>(3)</sup>	<b>0.61</b>	0.63	0.62
Core loss per share (non-GAAP)	<b>(\$9.44)</b>	(\$23.25)	(\$3.47)
Weighted average diluted shares (in millions)	<b>588.0</b>	569.0	566.0

<sup>(1)</sup> FAS/CAS service cost adjustment represents the difference between the FAS pension and postretirement service costs calculated under GAAP and costs allocated to the business segments. This adjustment is excluded from Core operating loss (non-GAAP).

<sup>(2)</sup> Non-operating pension and postretirement expenses represent the components of net periodic benefit costs other than service cost. These expenses are included in Other income, net and are excluded from Core loss per share (non-GAAP).

<sup>(3)</sup> The income tax impact is calculated using the U.S. corporate statutory tax rate.



## **Critical Accounting Policies & Estimates**

### **Accounting for Long-term Contracts**

Substantially all contracts at BDS and certain contracts at BGS are long-term contracts. Our long-term contracts typically represent a single distinct performance obligation due to the highly interdependent and interrelated nature of the underlying goods and/or services and the significant service of integration that we provide.

Accounting for long-term contracts involves a judgmental process of estimating the total sales, costs, and profit for each performance obligation. Cost of sales is recognized as incurred, and revenue is determined by adding a proportionate amount of the estimated profit to the amount reported as cost of sales.

Due to the size, duration and nature of many of our long-term contracts, the estimation of total sales and costs through completion is complicated and subject to many variables. Total sales estimates are based on negotiated contract prices and quantities, modified by our assumptions regarding contract options, change orders, incentive and award provisions associated with technical performance, and price adjustment clauses (such as inflation or index-based clauses). The majority of these long-term contracts are with the U.S. government where the price is generally based on estimated cost to produce the product or service plus profit. Federal Acquisition Regulations provide guidance on the types of cost that will be reimbursed in establishing contract price. Total cost estimates are largely based on negotiated or estimated purchase contract terms, historical performance trends, business base and other economic projections. Factors that influence these estimates include inflationary trends, technical and schedule risk, internal and subcontractor performance trends, business volume assumptions, COVID-19 disruptions, asset utilization and anticipated labor agreements.

Revenue and cost estimates for all significant long-term contract performance obligations are reviewed and reassessed quarterly. Changes in these estimates could result in recognition of cumulative catch-up adjustments to the performance obligation's inception to date revenues, cost of sales and profit in the period in which such changes are made. Changes in revenue and cost estimates could also result in a reach-forward loss or an adjustment to a reach-forward loss which would be recorded immediately in earnings. For the years ended December 31, 2021, 2020 and 2019, net unfavorable cumulative catch-up adjustments across all long-term contracts increased loss from operations by \$880 million, \$942 million and \$111 million, respectively. The cumulative catch-up adjustments in 2021 were primarily due to losses recognized on the KC-46A Tanker, VC-25B and Commercial Crew programs. These are all fixed-price development programs, and there is ongoing risk that similar losses may have to be recognized in future periods on these and/or other programs.

Due to the significance of judgment in the estimation process described above, it is likely that materially different earnings could be recorded if we used different assumptions or if the underlying circumstances were to change. Changes in underlying assumptions/estimates, supplier performance, or circumstances may adversely or positively affect financial performance in future periods. If the combined gross margins for our profitable long-term contracts had been estimated to be higher or lower by 1% during 2021, it would have increased or decreased pre-tax income for the year by approximately \$300 million.

### **Program Accounting**

Program accounting requires the demonstrated ability to reliably estimate revenues, costs and gross profit margin for the defined program accounting quantity. A program consists of the estimated number of units (accounting quantity) of a product to be produced in a continuing, long-term production effort for delivery under existing and anticipated contracts. The determination of the accounting quantity is limited by the ability to make reasonably dependable estimates.

Factors that must be estimated include program accounting quantity, sales price, labor and employee benefit costs, material costs, procured part costs, major component costs, overhead costs, program tooling and other non-recurring costs, and warranty costs. Estimation of the accounting quantity for each program takes into account several factors that are indicative of the demand for the particular program, such as firm orders, letters of intent from prospective customers and market studies. Total estimated program sales are determined by estimating the model mix and sales price for all unsold units within the accounting quantity, added together with the sales prices for all undelivered units under contract. The sales prices for all undelivered units within the accounting quantity include an escalation adjustment for inflation that is updated quarterly. Cost estimates are based largely on negotiated and anticipated contracts with suppliers, historical performance trends, and business base and other economic projections. Factors that influence these estimates include production rates, internal and subcontractor performance trends, customer and/or supplier claims or assertions, asset utilization, anticipated labor agreements, COVID-19 disruptions, and inflationary or deflationary trends.

To ensure reliability in our estimates, we employ a rigorous estimating process that is reviewed and updated on a quarterly basis. This includes reassessing the accounting quantity. Changes in estimates of program gross profit margins are normally recognized on a prospective basis; however, when estimated costs to complete a program plus costs already included in inventory exceed estimated revenues from the program, a loss is recorded in the current period. Reductions to the estimated loss are included in the gross profit margin for undelivered units in the accounting quantity whereas increases to the estimated loss are recorded as an earnings charge in the period in which the loss is determined.

The 747, 767 and 777X programs have near break-even margins, and the 787 program has zero margin at December 31, 2021. Adverse changes to the revenue and/or cost estimates for these programs could result in additional earnings charges in future periods.

**777X Program** During the fourth quarter of 2020, we revised the estimated first delivery date of the 777X to late 2023 and recorded a \$6.5 billion reach-forward loss on the 777X program. The revised schedule and reach-forward loss reflected a number of factors, including an updated assessment of global certification requirements informed by continued discussions with regulators and a management decision in the fourth quarter of 2020 to make modifications to the aircraft's design, an updated assessment of COVID-19 impacts on market demand and discussions with our customers with respect to aircraft delivery timing. These factors resulted in adjustments to production rates and the program accounting quantity, increased change incorporation costs, and associated customer and supply chain impacts. The initial accounting quantity of 350 airplanes established in the fourth quarter of 2020 consists of 777X passenger airplanes and remained unchanged during 2021.

We are working towards reaching TIA which will enable us to begin FAA certification flight testing. The timing of TIA and certification will ultimately be determined by the regulators, and further determinations with respect to anticipated certification requirements could result in additional delays in entry into service and/or additional cost increases.

We continue to anticipate that the first 777X delivery will occur in late 2023. The 777X program has near break-even gross margins at December 31, 2021. The level of profitability on the 777X program will be subject to a number of factors. These factors include continued market uncertainty, the impacts of COVID-19 on our production system as well as impacts on our supply chain and customers, customer negotiations, further production rate adjustments for the 777X or other commercial aircraft programs, contraction of the accounting quantity and potential risks associated with the testing program and the timing of aircraft certification. One or more of these factors could result in additional reach-forward losses on the 777X program in future periods, which may be material.

**787 Program** The 787 program's production issues and delivery pause result in significant uncertainties regarding the revenue and cost estimates for the 787 program. Deliveries have remained paused since May 2021. During the fourth quarter of 2021, we recorded a loss of \$3.5 billion on the program primarily due to rework driving longer delivery delays than were previously expected and associated customer considerations. The estimate of customer considerations is based on a number of factors, including our current assumptions regarding timing of FAA approval enabling resumption of deliveries, estimated timing of completion of inspections and rework to enable deliveries in future periods, estimated timing of production rate increases as well as customer and market assessments. We continue to conduct inspections and rework and engage in detailed discussions with the FAA regarding required actions for resuming delivery of the 787. Our program revenue and cost estimates reflect the assumption that production rates will remain very low until deliveries resume, gradually returning to 5 per month over time. We have also assumed lower forecasted revenues due to delayed deliveries. Our program assumptions reflect our current best estimate. However, if the program experiences further delivery delays or other factors such as additional inspections or rework that result in lower revenue or higher cost estimates, we could record additional losses in future periods, which may be material.

### **Goodwill Impairments**

We test goodwill for impairment by performing a qualitative assessment or quantitative test. If we choose to perform a qualitative assessment, we evaluate economic, industry and company-specific factors as an initial step in assessing the fair value of the reporting unit. If we determine it is more likely than not that the carrying value of the net assets is more than the fair value of the reporting unit, then a quantitative test is performed; otherwise, no further testing is required. For reporting units where the quantitative test is used, we compare the carrying value of net assets to the estimated fair value of the reporting unit. If the fair value is determined to be less than carrying value, the shortfall up to the carrying value of the goodwill represents the amount of goodwill impairment.

We generally estimate the fair values of our reporting units using a combination of discounted cash flows and market-based valuation methodologies such as comparable public company trading values. Forecasts of future cash flows are based on our best estimate of future sales, operating costs and changes in working capital. These forecasts reflect existing firm orders, expected future orders, expected production rates and delivery profiles, contracts with suppliers, labor agreements and general market conditions. Changes in these forecasts could significantly change the amount of impairment recorded, if any. The cash flow forecasts are adjusted by an appropriate discount rate derived from our market capitalization plus a suitable control premium at the date of evaluation. Therefore, changes in the stock price may also affect the amount of impairment recorded, if any.

We completed our annual assessment of goodwill as of April 1, 2021 and determined that there was no impairment of goodwill. As of December 31, 2021, we estimated that the fair value of each reporting unit significantly exceeded its corresponding carrying value. Changes in our forecasts, discount rates or decreases in the value of our common stock could cause book values to exceed their fair values which may result in goodwill impairment charges in future periods.

### **Pension Plans**

Many of our employees have earned benefits under defined benefit pension plans. Nonunion and the majority of union employees that had participated in defined benefit pension plans transitioned to a company-funded defined contribution retirement savings plan in 2016. Additional union employees transitioned to company-funded defined contribution retirement savings plans effective January 1, 2019. Accounting rules require an annual measurement of our projected obligation and plan assets. These measurements are based upon several assumptions, including the discount rate and the expected long-term rate of asset return. Future changes in assumptions or differences between actual and expected

outcomes can significantly affect our future annual expense, projected benefit obligation and Shareholders' equity.

The projected benefit obligation is sensitive to discount rates. The projected benefit obligation would decrease by \$2,240 million or increase by \$2,530 million if the discount rate increased or decreased by 25 basis points. A 25 basis point change in the discount rate would not have a significant impact on pension cost. However, net periodic pension cost is sensitive to changes in the expected long-term rate of asset return. A decrease or increase of 25 basis points in the expected long-term rate of asset return would have increased or decreased 2021 net periodic pension cost by \$155 million. See Note 16 of the Notes to our Consolidated Financial Statements, which includes the discount rate and expected long-term rate of asset return assumptions for the last three years.

### **Deferred Income Taxes – Valuation Allowance**

The Company has deferred income tax assets of \$11,258 million at December 31, 2021 that can be used in future years to offset taxable income and reduce income taxes payable. The Company has deferred income tax liabilities of \$8,976 million at December 31, 2021 that will partially offset deferred income tax assets and result in higher taxable income in future years and increase income taxes payable. Tax law determines whether future reversals of temporary differences will result in taxable and deductible amounts that offset each other in future years. The particular years in which temporary differences result in taxable or deductible amounts generally are determined by the timing of the recovery of the related asset or settlement of the related liability.

On a quarterly basis, we assess the likelihood that we will be able to recover our deferred tax assets against future sources of taxable income and reduce the carrying amounts of deferred tax assets by recording a valuation allowance if, based on the available evidence, it is more likely than not (defined as a likelihood of more than 50%) that all or a portion of such assets will not be realized.

This assessment takes into account both positive and negative evidence. A recent history of financial reporting losses is heavily weighted as a source of objectively verifiable negative evidence. Due to our recent history of losses, we determined we could not include future projected earnings in our analysis. Rather, we use systematic and logical methods to estimate when deferred tax liabilities will reverse and generate taxable income and when deferred tax assets will reverse and generate tax deductions. The selection of methodologies and assessment of when temporary differences will result in taxable or deductible amounts involves significant management judgment and is inherently complex and subjective. We believe that the methodologies we use are reasonable and can be replicated on a consistent basis in future periods.

Deferred tax liabilities represent the assumed source of future taxable income and the majority are assumed to generate taxable amounts during the next five years. Deferred tax assets include amounts related to pension and other postretirement benefits that are assumed to generate significant deductible amounts beyond five years. The Company's valuation allowance of \$2,423 million at December 31, 2021 primarily relates to pension and other postretirement benefit obligation deferred tax assets that are assumed to reverse beyond the period in which reversals of deferred tax liabilities are assumed to occur. During 2021, the Company decreased the valuation allowance by \$671 primarily due to favorable pension remeasurement. Until the Company generates sustained levels of profitability, additional valuation allowances may have to be recorded with corresponding adverse impacts on earnings and/or other comprehensive income.

For additional information regarding income taxes, see Note 4 of the Notes to the Consolidated Financial Statements.

## **Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

### **Interest Rate Risk**

We have financial instruments that are subject to interest rate risk, principally fixed- and floating-rate debt obligations, and customer financing assets and liabilities. The investors in our fixed-rate debt obligations do not generally have the right to demand we pay off these obligations prior to maturity. Therefore, exposure to interest rate risk is not believed to be material for our fixed-rate debt. In 2021, we repaid the \$13.8 billion outstanding under our two-year floating-rate delayed draw term loan credit agreement. As a result, as of December 31, 2021, we do not have any significant floating-rate debt obligations. Historically, we have not experienced material gains or losses on our customer financing assets and liabilities due to interest rate changes.

### **Foreign Currency Exchange Rate Risk**

We are subject to foreign currency exchange rate risk relating to receipts from customers and payments to suppliers in foreign currencies. We use foreign currency forward contracts to hedge the price risk associated with firmly committed and forecasted foreign denominated payments and receipts related to our ongoing business. Foreign currency forward contracts are sensitive to changes in foreign currency exchange rates. At December 31, 2021, a 10% increase or decrease in the exchange rate in our portfolio of foreign currency contracts would have increased or decreased our unrealized losses by \$241 million. Consistent with the use of these contracts to neutralize the effect of exchange rate fluctuations, such unrealized losses or gains would be offset by corresponding gains or losses, respectively, in the remeasurement of the underlying transactions being hedged. When taken together, these forward currency contracts and the offsetting underlying commitments do not create material market risk.

### **Commodity Price Risk**

We are subject to commodity price risk relating to commodity purchase contracts for items used in production that are subject to changes in the market price. We use commodity swaps and commodity purchase contracts to hedge against these potentially unfavorable price changes. Our commodity purchase contracts and derivatives are both sensitive to changes in the market price. At December 31, 2021, a 10% increase or decrease in the market price in our commodity derivatives would have increased or decreased our unrealized losses by \$46 million. Consistent with the use of these contracts to neutralize the effect of market price fluctuations, such unrealized losses or gains would be offset by corresponding gains or losses, respectively, in the remeasurement of the underlying transactions being hedged. When taken together, these commodity purchase contracts and the offsetting swaps do not create material market risk.



## Item 8. Financial Statements and Supplementary Data

### Index to the Consolidated Financial Statements

	<b>Page</b>
Consolidated Statements of Operations .....	58
Consolidated Statements of Comprehensive Income .....	59
Consolidated Statements of Financial Position .....	60
Consolidated Statements of Cash Flows .....	61
Consolidated Statements of Equity .....	62
Summary of Business Segment Data .....	63
Note 1 - Summary of Significant Accounting Policies .....	64
Note 2 - Goodwill and Acquired Intangibles .....	77
Note 3 - Earnings Per Share .....	78
Note 4 - Income Taxes .....	80
Note 5 - Accounts Receivable .....	84
Note 6 - Allowance for Losses on Financial Assets .....	84
Note 7 - Inventories .....	85
Note 8 - Contracts with Customers .....	86
Note 9 - Customer Financing .....	87
Note 10 - Property, Plant and Equipment .....	89
Note 11 - Investments .....	90
Note 12 - Leases .....	90
Note 13 - Liabilities, Commitments and Contingencies .....	92
Note 14 - Arrangements with Off-Balance Sheet Risk .....	97
Note 15 - Debt .....	98
Note 16 - Postretirement Plans .....	99
Note 17 - Share-Based Compensation and Other Compensation Arrangements .....	108
Note 18 - Shareholders' Equity .....	112
Note 19 - Derivative Financial Instruments .....	113
Note 20 - Fair Value Measurements .....	115
Note 21 - Legal Proceedings .....	117
Note 22 - Segment and Revenue Information .....	118
Reports of Independent Registered Public Accounting Firm .....	124

**The Boeing Company and Subsidiaries**  
**Consolidated Statements of Operations**

*(Dollars in millions, except per share data)*

Years ended December 31,	2021	2020	2019
Sales of products	<b>\$51,386</b>	\$47,142	\$66,094
Sales of services	<b>10,900</b>	11,016	10,465
<b>Total revenues</b>	<b>62,286</b>	58,158	76,559
Cost of products	<b>(49,954)</b>	(54,568)	(62,877)
Cost of services	<b>(9,283)</b>	(9,232)	(9,154)
Boeing Capital interest expense	<b>(32)</b>	(43)	(62)
<b>Total costs and expenses</b>	<b>(59,269)</b>	(63,843)	(72,093)
	<b>3,017</b>	(5,685)	4,466
Income/(loss) from operating investments, net	<b>210</b>	9	(4)
General and administrative expense	<b>(4,157)</b>	(4,817)	(3,909)
Research and development expense, net	<b>(2,249)</b>	(2,476)	(3,219)
Gain on dispositions, net	<b>277</b>	202	691
<b>Loss from operations</b>	<b>(2,902)</b>	(12,767)	(1,975)
Other income, net	<b>551</b>	447	438
Interest and debt expense	<b>(2,682)</b>	(2,156)	(722)
<b>Loss before income taxes</b>	<b>(5,033)</b>	(14,476)	(2,259)
Income tax benefit	<b>743</b>	2,535	1,623
<b>Net loss</b>	<b>(4,290)</b>	(11,941)	(636)
Less: net loss attributable to noncontrolling interest	<b>(88)</b>	(68)	
<b>Net loss attributable to Boeing Shareholders</b>	<b>(\$4,202)</b>	(\$11,873)	(\$636)
<b>Basic loss per share</b>	<b>(\$7.15)</b>	(\$20.88)	(\$1.12)
<b>Diluted loss per share</b>	<b>(\$7.15)</b>	(\$20.88)	(\$1.12)

See Notes to the Consolidated Financial Statements on pages 64 – 123.

**The Boeing Company and Subsidiaries**  
**Consolidated Statements of Comprehensive Income**

*(Dollars in millions)*

Years ended December 31,	2021	2020	2019
Net loss	<b>(\$4,290)</b>	(\$11,941)	(\$636)
Other comprehensive income/(loss), net of tax:			
Currency translation adjustments	<b>(75)</b>	98	(27)
Unrealized gain on certain investments, net of tax of \$0, \$0 and \$0			1
Derivative instruments:			
Unrealized gain/(loss) arising during period, net of tax of (\$16), (\$4) and \$13	<b>55</b>	14	(48)
Reclassification adjustment for (gain)/loss included in net earnings, net of tax of \$2, (\$7) and (\$7)	<b>(6)</b>	27	26
Total unrealized gain/(loss) on derivative instruments, net of tax	<b>49</b>	41	(22)
Defined benefit pension plans & other postretirement benefits:			
Net actuarial gain/(loss) arising during the period, net of tax of (\$32), \$111 and \$405	<b>4,262</b>	(1,956)	(1,413)
Amortization of actuarial losses included in net periodic pension cost, net of tax of (\$8), (\$52) and (\$133)	<b>1,155</b>	917	464
Settlements included in net income, net of tax of (\$2), \$0 and \$0	<b>191</b>	5	
Amortization of prior service credits included in net periodic pension cost, net of tax of \$1, \$6 and \$25	<b>(114)</b>	(112)	(89)
Prior service cost/(credit) arising during the period, net of tax of \$0, (\$2) and \$0		27	(1)
Pension and postretirement benefit related to our equity method investments, net of tax of (\$2), \$0 and (\$5)	<b>6</b>		17
Total defined benefit pension plans & other postretirement benefits, net of tax	<b>5,500</b>	(1,119)	(1,022)
<b>Other comprehensive income/(loss), net of tax</b>	<b>5,474</b>	(980)	(1,070)
<b>Comprehensive loss related to noncontrolling interests</b>			(41)
<b>Comprehensive income/(loss), net of tax</b>	<b>1,184</b>	(12,921)	(1,747)
Less: Comprehensive loss related to noncontrolling interest	<b>(88)</b>	(68)	(41)
<b>Comprehensive income/(loss) attributable to Boeing Shareholders, net of tax</b>	<b>\$1,272</b>	(\$12,853)	(\$1,706)

See Notes to the Consolidated Financial Statements on pages 64 – 123.

**The Boeing Company and Subsidiaries**  
**Consolidated Statements of Financial Position**

(Dollars in millions, except per share data)

December 31,	2021	2020
<b>Assets</b>		
Cash and cash equivalents	\$8,052	\$7,752
Short-term and other investments	8,192	17,838
Accounts receivable, net	2,641	1,955
Unbilled receivables, net	8,620	7,995
Current portion of customer financing, net	117	101
Inventories	78,823	81,715
Other current assets, net	2,221	4,286
<b>Total current assets</b>	<b>108,666</b>	<b>121,642</b>
Customer financing, net	1,695	1,936
Property, plant and equipment, net	10,918	11,820
Goodwill	8,068	8,081
Acquired intangible assets, net	2,562	2,843
Deferred income taxes	77	86
Investments	975	1,016
Other assets, net of accumulated amortization of \$975 and \$729	5,591	4,712
<b>Total assets</b>	<b>\$138,552</b>	<b>\$152,136</b>
<b>Liabilities and equity</b>		
Accounts payable	\$9,261	\$12,928
Accrued liabilities	18,455	22,171
Advances and progress billings	52,980	50,488
Short-term debt and current portion of long-term debt	1,296	1,693
<b>Total current liabilities</b>	<b>81,992</b>	<b>87,280</b>
Deferred income taxes	218	1,010
Accrued retiree health care	3,528	4,137
Accrued pension plan liability, net	9,104	14,408
Other long-term liabilities	1,750	1,486
Long-term debt	56,806	61,890
<b>Total liabilities</b>	<b>153,398</b>	<b>170,211</b>
Shareholders' equity:		
Common stock, par value \$5.00 – 1,200,000,000 shares authorized; 1,012,261,159 shares issued	5,061	5,061
Additional paid-in capital	9,052	7,787
Treasury stock, at cost	(51,861)	(52,641)
Retained earnings	34,408	38,610
Accumulated other comprehensive loss	(11,659)	(17,133)
<b>Total shareholders' deficit</b>	<b>(14,999)</b>	<b>(18,316)</b>
Noncontrolling interests	153	241
<b>Total equity</b>	<b>(14,846)</b>	<b>(18,075)</b>
<b>Total liabilities and equity</b>	<b>\$138,552</b>	<b>\$152,136</b>

See Notes to the Consolidated Financial Statements on pages 64 – 123.

**The Boeing Company and Subsidiaries**  
**Consolidated Statements of Cash Flows**

(Dollars in millions)

Years ended December 31,	2021	2020	2019
<b>Cash flows – operating activities:</b>			
Net loss	(\$4,290)	(\$11,941)	(\$636)
Adjustments to reconcile net loss to net cash used by operating activities:			
Non-cash items –			
Share-based plans expense	833	250	212
Treasury shares issued for 401(k) contribution	1,233	195	
Depreciation and amortization	2,144	2,246	2,271
Investment/asset impairment charges, net	98	410	443
Customer financing valuation adjustments		12	250
Gain on dispositions, net	(277)	(202)	(691)
787 and 777X reach-forward losses	3,460	6,493	
Other charges and credits, net	360	1,462	334
Changes in assets and liabilities –			
Accounts receivable	(713)	909	603
Unbilled receivables	(586)	919	982
Advances and progress billings	2,505	(1,060)	737
Inventories	(1,127)	(11,002)	(12,391)
Other current assets	345	372	(682)
Accounts payable	(3,783)	(5,363)	1,600
Accrued liabilities	(3,687)	1,074	7,781
Income taxes receivable, payable and deferred	733	(2,576)	(2,476)
Other long-term liabilities	(206)	(222)	(621)
Pension and other postretirement plans	(972)	(794)	(777)
Customer financing, net	210	173	419
Other	304	235	196
<b>Net cash used by operating activities</b>	<b>(3,416)</b>	<b>(18,410)</b>	<b>(2,446)</b>
<b>Cash flows – investing activities:</b>			
Payments to acquire property, plant and equipment	(980)	(1,303)	(1,834)
Proceeds from disposals of property, plant and equipment	529	296	334
Acquisitions, net of cash acquired	(6)		(455)
Proceeds from dispositions			464
Contributions to investments	(35,713)	(37,616)	(1,658)
Proceeds from investments	45,489	20,275	1,759
Purchase of distribution rights			(127)
Other	5	(18)	(13)
<b>Net cash provided/(used) by investing activities</b>	<b>9,324</b>	<b>(18,366)</b>	<b>(1,530)</b>
<b>Cash flows – financing activities:</b>			
New borrowings	9,795	47,248	25,389
Debt repayments	(15,371)	(10,998)	(12,171)
Contributions from noncontrolling interests			7
Stock options exercised	42	36	58
Employee taxes on certain share-based payment arrangements	(66)	(173)	(248)
Common shares repurchased			(2,651)
Dividends paid		(1,158)	(4,630)
Other			(15)
<b>Net cash (used)/provided by financing activities</b>	<b>(5,600)</b>	<b>34,955</b>	<b>5,739</b>
Effect of exchange rate changes on cash and cash equivalents	(39)	85	(5)
<b>Net increase/(decrease) in cash &amp; cash equivalents, including restricted</b>	<b>269</b>	<b>(1,736)</b>	<b>1,758</b>
Cash & cash equivalents, including restricted, at beginning of year	7,835	9,571	7,813
<b>Cash &amp; cash equivalents, including restricted, at end of year</b>	<b>8,104</b>	<b>7,835</b>	<b>9,571</b>
Less restricted cash & cash equivalents, included in Investments	52	83	86
<b>Cash and cash equivalents at end of year</b>	<b>\$8,052</b>	<b>\$7,752</b>	<b>\$9,485</b>

See Notes to the Consolidated Financial Statements on pages 64 – 123.



**The Boeing Company and Subsidiaries**  
**Consolidated Statements of Equity**

	Boeing shareholders						Non-controlling Interest	Total
	Common Stock	Additional Paid-In Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss			
<i>(Dollars in millions, except per share data)</i>								
Balance at January 1, 2019	\$5,061	\$6,768	(\$52,348)	\$55,941	(\$15,083)	\$71		\$410
Net loss				(636)		(41)		(677)
Other comprehensive loss, net of tax of \$298					(1,070)			(1,070)
Share-based compensation and related dividend equivalents		245		(33)				212
Treasury shares issued for stock options exercised, net		(47)	104					57
Treasury shares issued for other share-based plans, net		(221)	(19)					(240)
Common shares repurchased			(2,651)					(2,651)
Cash dividends declared (\$8.22 per share)				(4,628)				(4,628)
Changes in noncontrolling interests						287		287
Balance at December 31, 2019	\$5,061	\$6,745	(\$54,914)	\$50,644	(\$16,153)	\$317		(\$8,300)
Impact of ASU 2016-13				(162)				(162)
Balance at January 1, 2020	\$5,061	\$6,745	(\$54,914)	\$50,482	(\$16,153)	\$317		(\$8,462)
Net loss				(11,873)		(68)		(11,941)
Other comprehensive loss, net of tax of \$52					(980)			(980)
Share-based compensation		250						250
Treasury shares issued for stock options exercised, net		(26)	63					37
Treasury shares issued for other share-based plans, net		(214)	47					(167)
Treasury shares contributed to pension plans		952	2,048					3,000
Treasury shares issued for 401(k) contribution		80	115					195
Changes in noncontrolling interests						(8)		(8)
Other				1				1
<b>Balance at December 31, 2020</b>	<b>\$5,061</b>	<b>\$7,787</b>	<b>(\$52,641)</b>	<b>\$38,610</b>	<b>(\$17,133)</b>	<b>\$241</b>		<b>(\$18,075)</b>
<b>Net loss</b>				<b>(4,202)</b>		<b>(88)</b>		<b>(4,290)</b>
<b>Other comprehensive income, net of tax of (\$57)</b>					<b>5,474</b>			<b>5,474</b>
<b>Share-based compensation</b>		<b>833</b>						<b>833</b>
<b>Treasury shares issued for stock options exercised, net</b>		<b>(28)</b>	<b>70</b>					<b>42</b>
<b>Treasury shares issued for other share-based plans, net</b>		<b>(98)</b>	<b>35</b>					<b>(63)</b>
<b>Treasury shares issued for 401(k) contribution</b>		<b>558</b>	<b>675</b>					<b>1,233</b>
<b>Balance at December 31, 2021</b>	<b>\$5,061</b>	<b>\$9,052</b>	<b>(\$51,861)</b>	<b>\$34,408</b>	<b>(\$11,659)</b>	<b>\$153</b>		<b>(\$14,846)</b>

See Notes to the Consolidated Financial Statements on pages 64 – 123.

**The Boeing Company and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**Summary of Business Segment Data**

*(Dollars in millions)*

Years ended December 31,	2021	2020	2019
Revenues:			
Commercial Airplanes	\$19,493	\$16,162	\$32,255
Defense, Space & Security	26,540	26,257	26,095
Global Services	16,328	15,543	18,468
Boeing Capital	272	261	244
Unallocated items, eliminations and other	(347)	(65)	(503)
<b>Total revenues</b>	<b>\$62,286</b>	<b>\$58,158</b>	<b>\$76,559</b>
Earnings/(loss) from operations:			
Commercial Airplanes	(\$6,475)	(\$13,847)	(\$6,657)
Defense, Space & Security	1,544	1,539	2,615
Global Services	2,017	450	2,697
Boeing Capital	106	63	28
<b>Segment operating loss</b>	<b>(2,808)</b>	<b>(11,795)</b>	<b>(1,317)</b>
Unallocated items, eliminations and other	(1,267)	(2,355)	(2,073)
FAS/CAS service cost adjustment	1,173	1,383	1,415
<b>Loss from operations</b>	<b>(2,902)</b>	<b>(12,767)</b>	<b>(1,975)</b>
Other income, net	551	447	438
Interest and debt expense	(2,682)	(2,156)	(722)
<b>Loss before income taxes</b>	<b>(5,033)</b>	<b>(14,476)</b>	<b>(2,259)</b>
Income tax benefit	743	2,535	1,623
<b>Net loss</b>	<b>(4,290)</b>	<b>(11,941)</b>	<b>(636)</b>
Less: net loss attributable to noncontrolling interest	(88)	(68)	
<b>Net loss attributable to Boeing Shareholders</b>	<b>(\$4,202)</b>	<b>(\$11,873)</b>	<b>(\$636)</b>

This information is an integral part of the Notes to the Consolidated Financial Statements. See Note 22 for further segment results.

**The Boeing Company and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**Years ended December 31, 2021, 2020 and 2019**  
*(Dollars in millions, except otherwise stated)*

**Note 1 – Summary of Significant Accounting Policies**

**Principles of Consolidation and Basis of Presentation**

The Consolidated Financial Statements included in this report have been prepared by management of The Boeing Company (herein referred to as “Boeing,” the “Company,” “we,” “us” or “our”). These statements include the accounts of all majority-owned subsidiaries and variable interest entities that are required to be consolidated. All significant intercompany accounts and transactions have been eliminated. As described in Note 22, we operate in four reportable segments: Commercial Airplanes (BCA), Defense, Space & Security (BDS), Global Services (BGS) and Boeing Capital (BCC).

**Liquidity Matters**

The global outbreak of COVID-19, 787 production issues and associated rework, and the residual impacts of the 737 MAX grounding continue to have significant adverse impacts on our business and are expected to continue to negatively impact revenue, earnings and operating cash flow in future quarters. The COVID-19 pandemic has caused an unprecedented shock to demand for air travel, creating a tremendous challenge for our customers, our business and the entire commercial aerospace manufacturing and services sector. We continue to expect commercial air travel to return to 2019 levels in 2023 to 2024. We expect it will take a few years beyond that for the industry to return to long-term trend growth. There is significant uncertainty with respect to when commercial air traffic levels will recover, and whether, and at what point capacity will return to and/or exceed pre-COVID-19 levels.

During 2021, net cash used by operating activities was \$3.4 billion. Our operating cash flows continue to be impacted by lower commercial airplane deliveries and concessions paid to 737 MAX customers. We expect negative operating cash flows until commercial deliveries ramp up. In 2021, we issued \$9.8 billion of fixed rate senior notes that mature between 2023 and 2026. We used the net proceeds of these note issuances to repay the \$13.8 billion outstanding under our two-year delayed draw term loan credit agreement. In 2021, we also repaid \$1.5 billion of term notes. As a result, our cash and short-term investment balance was \$16.2 billion and our debt balance was \$58.1 billion at December 31, 2021. In addition, we have term notes of \$1.2 billion maturing in 2022.

As of December 31, 2021, our unused borrowing capacity on revolving credit agreements is \$14.7 billion. We anticipate that these revolving credit lines will remain undrawn and primarily serve as backup liquidity to support our general corporate borrowing needs. Our borrowing capacity includes a \$3.1 billion 364-day revolving credit facility, which is set to expire in October 2022. See Note 15.

In 2021, our short-term and long-term credit ratings by the major credit rating agencies remained unchanged from 2020. There is risk for further downgrades.

At December 31, 2021 and 2020, trade payables included \$2.3 billion and \$3.8 billion payable to suppliers who have elected to participate in supply chain financing programs. While access to supply chain financing has been reduced due to our current credit ratings and debt levels, we do not believe that these or future changes in the availability of supply chain financing will have a significant impact on our liquidity.

In addition to our debt issuances, we have taken a number of actions to improve liquidity. During 2020, our Board of Directors terminated its prior authorization to repurchase shares of the Company's outstanding common stock and suspended the declaration and/or payment of dividends until further

notice. We have also reduced production rates in our commercial business to reflect the impact of COVID-19 on the industry. We rationalized our workforce through a combination of voluntary and involuntary layoffs and natural turnover. In the fourth quarter of 2020, we began using our common stock in lieu of cash to fund Company contributions to our 401(k) plans. In December 2020, we awarded most of our employees a one-time stock grant that will vest in three years in lieu of merit pay increases. We have reduced discretionary spending, including reducing or deferring research and development and capital expenditures. We expect these actions to further enable the Company to conserve cash.

We are also working with our customers and supply chain to accelerate receipts and conserve cash. For example, the United States Department of Defense (U.S. DoD) has taken steps to work with its industry partners to increase liquidity in the form of increased progress payment rates and reductions in withholds among other initiatives. In addition, the Coronavirus Aid, Relief, and Economic Security (CARES) Act included a five-year net operating loss carryback provision which enabled us to benefit from certain 2020 losses and resulted in tax refunds of \$1.7 billion in 2021.

We continue to transform and improve our business processes. These activities are not intended to constrain our capacity but to enable the Company to emerge stronger and be more resilient when the market recovers.

Based on our current best estimates of market demand, planned production rates, timing of cash receipts and expenditures, our ability to successfully implement further actions to improve liquidity as well as our ability to access additional liquidity, if needed, we believe it is probable that we will be able to fund our operations for the foreseeable future.

## **Use of Estimates**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. We believe that the accounting estimates and assumptions are appropriate, however, given the increased uncertainties surrounding the severity and duration of the impacts of the COVID-19 pandemic actual results could differ from those estimates.

## **Operating Cycle**

For classification of certain current assets and liabilities, we use the duration of the related contract or program as our operating cycle, which is generally longer than one year.

## **Revenue and Related Cost Recognition**

**Commercial aircraft contracts** The majority of our BCA segment revenue is derived from commercial aircraft contracts. For each contract, we determine the transaction price based on the consideration expected to be received. We allocate the transaction price to each commercial aircraft performance obligation based on relative standalone selling prices adjusted by an escalation formula as specified in the customer agreement. Revenue is recognized for each commercial aircraft performance obligation at the point in time when the aircraft is completed and accepted by the customer. We use program accounting to determine the amount reported as cost of sales.

In certain situations, where an aircraft is still in our possession, and title and risk of loss has passed to the customer (known as a bill-and-hold arrangement), revenue will be recognized when all specific requirements for transfer of control under a bill-and-hold arrangement have been met.

Payments for commercial aircraft sales are received in accordance with the customer agreement, which generally includes a deposit upon order and additional payments in accordance with a payment schedule, with the balance being due immediately prior to or at aircraft delivery. Advances and progress billings (contract liabilities) are normal and customary for commercial aircraft contracts and not considered a significant financing component as they are intended to protect us from the other party failing to adequately complete some or all of its obligations under the contract.

**Long-term contracts** Substantially all contracts at BDS and certain contracts at BGS are long-term contracts with the U.S. government and other customers that generally extend over several years. Products sales under long-term contracts primarily include fighter jets, rotorcraft, cybersecurity products, surveillance suites, advanced weapons, missile defense, military derivative aircraft, satellite systems and modification of commercial passenger aircraft to cargo freighters. Services sales under long-term contracts primarily include support and maintenance agreements associated with our commercial and defense products and space travel on Commercial Crew.

For each long-term contract, we determine the transaction price based on the consideration expected to be received. We allocate the transaction price to each distinct performance obligation to deliver a good or service, or a collection of goods and/or services, based on the relative standalone selling prices. A long-term contract will typically represent a single distinct performance obligation due to the highly interdependent and interrelated nature of the underlying goods and/or services and the significant service of integration that we provide. While the scope and price on certain long-term contracts may be modified over their life, the transaction price is based on current rights and obligations under the contract and does not include potential modifications until they are agreed upon with the customer. When applicable, a cumulative adjustment or separate recognition for the additional scope and price may result. Long-term contracts can be negotiated with a fixed price or a price in which we are reimbursed for costs incurred plus an agreed upon profit. The Federal Acquisition Regulations provide guidance on the types of cost that will be reimbursed in establishing the price for contracts with the U.S. government. Certain long-term contracts include in the transaction price variable consideration, such as incentive and award fees, if specified targets are achieved. The amount included in the transaction price represents the expected value, based on a weighted probability, or the most likely amount.

Long-term contract revenue is recognized over the contract term (over time) as the work progresses, either as products are produced or as services are rendered. We generally recognize revenue over time as we perform on long-term contracts because of continuous transfer of control to the customer. For U.S. government contracts, this continuous transfer of control to the customer is supported by clauses in the contract that allow the customer to unilaterally terminate the contract for convenience, pay us for costs incurred plus a reasonable profit and take control of any work in process. Similarly, for non-U.S. government contracts, the customer typically controls the work in process as evidenced either by contractual termination clauses or by our rights to payment of the transaction price associated with work performed to date on products or services that do not have an alternative use to the Company.

The accounting for long-term contracts involves a judgmental process of estimating total sales, costs and profit for each performance obligation. Cost of sales is recognized as incurred. The amount reported as revenues is determined by adding a proportionate amount of the estimated profit to the amount reported as cost of sales. Recognizing revenue as costs are incurred provides an objective measure of progress on the long-term contract and thereby best depicts the extent of transfer of control to the customer.

For long-term contracts for which revenue is recognized over time, changes in estimated revenues, cost of sales and the related effect on operating income are recognized using a cumulative catch-up adjustment which recognizes in the current period the cumulative effect of the changes on current and prior periods based on a long-term contract's percentage-of-completion. When the current estimates of

total sales and costs for a long-term contract indicate a loss, a provision for the entire reach-forward loss on the long-term contract is recognized.

Net cumulative catch-up adjustments to prior years' revenue and earnings, including certain reach-forward losses, across all long-term contracts were as follows:

	2021	2020	2019
Increase/(Decrease) to Revenue	(\$379)	(\$359)	\$54
Increase to Loss from operations	(\$880)	(\$942)	(\$111)
Decrease to Diluted EPS	(\$1.28)	(\$1.37)	(\$0.06)

Significant adjustments during the three years ended December 31, 2021 included losses on KC-46A Tanker, Commercial Crew and VC-25B.

Due to the significance of judgment in the estimation process, changes in underlying assumptions/estimates, supplier performance or circumstances may adversely or positively affect financial performance in future periods.

Payments under long-term contracts may be received before or after revenue is recognized. The U.S. government customer typically withholds payment of a small portion of the contract price until contract completion. Therefore, long-term contracts typically generate Unbilled receivables (contract assets) but may generate Advances and progress billings (contract liabilities). Long-term contract Unbilled receivables and Advances and progress billings are not considered a significant financing component because they are intended to protect either the customer or the Company in the event that some or all of the obligations under the contract are not completed.

**Commercial spare parts contracts** Certain contracts at our BGS segment include sales of commercial spare parts. For each contract, we determine the transaction price based on the consideration expected to be received. The spare parts have discrete unit prices that represent fair value. We generally consider each spare part to be a separate performance obligation. Revenue is recognized for each commercial spare part performance obligation at the point in time of delivery to the customer. We may provide our customers with a right to return a commercial spare part where a customer may receive a full or partial refund, a credit applied to amounts owed, a different product in exchange, or any combination of these items. We consider the potential for customer returns in the estimated transaction price. The amount reported as cost of sales is recorded at average cost. Payments for commercial spare parts sales are typically received shortly after delivery.

**Other service revenue contracts** Certain contracts at our BGS segment are for sales of services to commercial customers including maintenance, training, data analytics and information-based services. We recognize revenue for these service performance obligations over time as the services are rendered. The method of measuring progress (such as straight-line or billable amount) varies depending upon which method best depicts the transfer of control to the customer based on the type of service performed. Cost of sales is recorded as incurred.

**Concession Sharing Arrangements** We account for sales concessions to our customers in consideration of their purchase of products and services as a reduction of the transaction price and the revenue that is recognized for the related performance obligations. The sales concessions incurred may be partially reimbursed by certain suppliers in accordance with concession sharing arrangements. We record these reimbursements, which are presumed to represent reductions in the price of the vendor's products or services, as a reduction in Cost of products.

**Unbilled Receivables and Advances and Progress Billings** Unbilled receivables (contract assets) arise when the Company recognizes revenue for amounts which cannot yet be billed under terms of the



contract with the customer. Advances and progress billings (contract liabilities) arise when the Company receives payments from customers in advance of recognizing revenue. The amount of Unbilled receivables or Advances and progress billings is determined for each contract.

**Financial Services Revenue** We record financial services revenue associated with sales-type/finance leases, operating leases and loans in Sales of services on the Consolidated Statements of Operations. For sales-type leases, we recognize revenue if collection of the lease payments is probable. For sales-type and finance leases, we record customer financing receivables at lease inception. A customer financing receivable is recorded at the aggregate of future minimum lease payments, estimated residual value of the leased equipment, and any deferred incremental direct costs less unearned income. Income is recognized over the life of the lease to approximate a level rate of return on the net investment. For notes receivable, notes are recorded as customer financing receivables net of any unamortized discounts and deferred incremental direct costs. Interest income and amortization of any discounts are recorded ratably over the related term of the note.

Income recognition is generally suspended for customer financing receivables that are uncollectible. We determine that a customer financing receivable is uncollectible when, based on current information and events, it is probable that we will be unable to collect amounts due according to the original contractual terms. We determine a customer financing receivable is past due when cash has not been received upon the due date specified in the contract.

We evaluate the collectability of customer financing receivables at commencement and on a recurring basis. If a customer financing receivable is determined to be uncollectible, the customer is categorized as non-accrual status. When a customer is in non-accrual status at commencement, sales-type lease revenue is deferred until substantially all cash has been received or the customer is removed from non-accrual status. If we have a direct finance lease and/or a note receivable with a customer that is in non-accrual status, or a sales-type lease with a customer that changes to non-accrual status after commencement, we recognize contractual interest income as payments are received to the extent there is sufficient collateral and payments exceed past due principal payments.

Residual values, which are reviewed periodically, represent the estimated amount we expect to receive at lease termination from the disposition of the leased equipment. Actual residual values realized could differ from these estimates. Declines in estimated residual value that are deemed other-than-temporary are recognized in the period in which the declines occur.

For operating leases, revenue on leased aircraft and equipment is recorded on a straight-line basis over the term of the lease. Operating lease assets, included in Customer financing, net, are recorded at cost and depreciated to an estimated residual value using the straight-line method over the period that we project we will hold the asset. We periodically review our estimates of residual value and recognize forecasted changes by prospectively adjusting depreciation expense.

**Reinsurance Revenue** Our wholly-owned insurance subsidiary, Astro Ltd., participates in a reinsurance pool for workers' compensation. The member agreements and practices of the reinsurance pool minimize any participating members' individual risk. Reinsurance revenues were \$126, \$129 and \$151 during 2021, 2020 and 2019, respectively. Reinsurance costs related to premiums and claims paid to the reinsurance pool were \$129, \$136 and \$150 during 2021, 2020 and 2019, respectively. Revenues and costs are presented net in Cost of sales in the Consolidated Statements of Operations.

### **Fleet Support**

We provide assistance and support to facilitate efficient and safe aircraft operation to the operators of all our commercial airplane models. Collectively known as fleet support, these activities and support services include flight and maintenance training, field service support, engineering support, and

technical data and documents. Fleet support activity begins prior to aircraft delivery as the customer receives training, manuals, and technical consulting support. This activity continues throughout the aircraft's operational life. Services provided after delivery include field service support, consulting on maintenance, repair and operational issues brought forth by the customer or regulators, updating manuals and engineering data, and the issuance of service bulletins that impact the entire model's fleet. Field service support involves our personnel located at customer facilities providing and coordinating fleet support activities and requests. The costs for fleet support are expensed as incurred as Cost of services.

### **Research and Development**

Research and development includes costs incurred for experimentation, design and testing, as well as bid and proposal efforts related to government products and services, which are expensed as incurred unless the costs are related to certain contractual arrangements with customers. Costs that are incurred pursuant to such contractual arrangements are recorded over the period that revenue is recognized, consistent with our long-term contract accounting policy. We have certain research and development arrangements that meet the requirement for best efforts research and development accounting. Accordingly, the amounts funded by the customer are recognized as an offset to our research and development expense rather than as contract revenues. Research and development expense included bid and proposal costs of \$213, \$224 and \$214 in 2021, 2020 and 2019, respectively.

### **Share-Based Compensation**

We provide various forms of share-based compensation to our employees. For awards settled in shares, we measure compensation expense based on the grant-date fair value net of estimated forfeitures. For awards settled in cash, or that may be settled in cash, we measure compensation expense based on the fair value at each reporting date net of estimated forfeitures. The expense is recognized over the requisite service period, which is generally the vesting period of the award.

### **Income Taxes**

Provisions for U.S. federal, state and local, and non-U.S. income taxes are calculated on reported Loss before income taxes based on current tax law and also include, in the current period, the cumulative effect of any changes in tax rates from those used previously in determining deferred tax assets and liabilities. Such provisions differ from the amounts currently receivable or payable because certain items of income and expense are recognized in different time periods for financial reporting purposes than for income tax purposes. Significant judgment is required in determining income tax provisions and evaluating tax positions.

The accounting for uncertainty in income taxes requires a more-likely-than-not threshold for financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. We record a liability for the difference between the benefit recognized and measured for financial statement purposes and the tax position taken or expected to be taken on our tax return. To the extent that our assessment of such tax positions changes, the change in estimate is recorded in the period in which the determination is made. Tax-related interest and penalties are classified as a component of Income tax benefit.

We also assess the likelihood that we will be able to recover our deferred tax assets against future sources of taxable income and reduce the carrying amounts of deferred tax assets by recording a valuation allowance if, based on the available evidence, it is more likely than not that all or a portion of such assets will not be realized. Changes in our estimates and judgments regarding realization of deferred tax assets may result in an increase or decrease to our tax expense and/or other comprehensive income, which would be recorded in the period in which the change occurs.

## **Postretirement Plans**

Many of our employees have earned benefits under defined benefit pension plans. Nonunion and the majority of union employees that had participated in defined benefit pension plans transitioned to a company-funded defined contribution retirement savings plan in 2016. Additional union employees transitioned to company-funded defined contribution retirement savings plans effective January 1, 2019. We also provide postretirement benefit plans other than pensions, consisting principally of health care coverage to eligible retirees and qualifying dependents. Benefits under the pension and other postretirement benefit plans are generally based on age at retirement and years of service and, for some pension plans, benefits are also based on the employee's annual earnings. The net periodic cost of our pension and other postretirement plans is determined using the projected unit credit method and several actuarial assumptions, the most significant of which are the discount rate, the long-term rate of asset return and medical trend (rate of growth for medical costs). A portion of the service cost component of net periodic pension and other postretirement income or expense is not recognized in net earnings in the year incurred because it is allocated to production as product costs and reflected in inventory at the end of a reporting period. Actuarial gains and losses, which occur when actual experience differs from actuarial assumptions, are reflected in Shareholders' equity (net of taxes). If actuarial gains and losses exceed ten percent of the greater of plan assets or plan liabilities, we amortize them over the average expected future lifetime of participants. The funded status of our pension and postretirement plans is reflected on the Consolidated Statements of Financial Position.

## **Postemployment Plans**

We record a liability for postemployment benefits, such as severance or job training, when payment is probable, the amount is reasonably estimable, and the obligation relates to rights that have vested or accumulated.

## **Environmental Remediation**

We are subject to federal and state requirements for protection of the environment, including those for discharge of hazardous materials and remediation of contaminated sites. We routinely assess, based on in-depth studies, expert analyses and legal reviews, our contingencies, obligations and commitments for remediation of contaminated sites, including assessments of ranges and probabilities of recoveries from other responsible parties and/or insurance carriers. Our policy is to accrue and charge to current expense identified exposures related to environmental remediation sites when it is probable that a liability has been incurred and the amount can be reasonably estimated. The amount of the liability is based on our best estimate or the low end of a range of reasonably possible exposure for investigation, cleanup and monitoring costs to be incurred. Estimated remediation costs are not discounted to present value as the timing of payments cannot be reasonably estimated. We may be able to recover a portion of the remediation costs from insurers or other third parties. Such recoveries are recorded when realization of the claim for recovery is deemed probable.

## **Cash and Cash Equivalents**

Cash and cash equivalents consist of highly liquid instruments, such as commercial paper, time deposits, and other money market instruments, which have original maturities of three months or less. We aggregate our cash balances by bank where conditions for right of set-off are met, and reclassify any negative balances, consisting mainly of uncleared checks, to Accounts payable. Negative balances reclassified to Accounts payable were \$47 and \$74 at December 31, 2021 and 2020.

## **Inventories**

Inventoried costs on commercial aircraft programs and long-term contracts include direct engineering, production and tooling and other non-recurring costs, and applicable overhead, which includes fringe

benefits, production related indirect and plant management salaries and plant services, not in excess of estimated net realizable value. To the extent a material amount of such costs are related to an abnormal event or are fixed costs not appropriately attributable to our programs or contracts, they are expensed in the current period rather than inventoried. Inventoried costs include amounts relating to programs and contracts with long-term production cycles, a portion of which is not expected to be realized within one year. Included in inventory for federal government contracts is an allocation of allowable costs related to manufacturing process reengineering.

Commercial aircraft programs inventory includes deferred production costs and supplier advances. Deferred production costs represent actual costs incurred for production of early units that exceed the estimated average cost of all units in the program accounting quantity. Higher production costs are experienced at the beginning of a new or derivative airplane program. Units produced early in a program require substantially more effort (labor and other resources) than units produced later in a program because of volume efficiencies and the effects of learning. We expect that these deferred costs will be fully recovered when all units included in the accounting quantity are delivered as the expected unit cost for later deliveries is below the estimated average cost of all units in the program. Supplier advances represent payments for parts we have contracted to receive from suppliers in the future. As parts are received, supplier advances are amortized to work in process.

The determination of net realizable value of long-term contract costs is based upon quarterly reviews that estimate costs to be incurred to complete all contract requirements. When actual contract costs and the estimate to complete exceed total estimated contract revenues, a loss provision is recorded. The determination of net realizable value of commercial aircraft program costs is based upon quarterly program reviews that estimate revenue and cost to be incurred to complete the program accounting quantity. When estimated costs to complete exceed estimated program revenues to go, a program loss provision is recorded in the current period for the estimated loss on all undelivered units in the accounting quantity.

Used aircraft purchased by the Commercial Airplanes segment and general stock materials are stated at cost not in excess of net realizable value. See 'Aircraft Valuation' within this Note for a discussion of our valuation of used aircraft. Spare parts inventory is stated at lower of average unit cost or net realizable value. We review our commercial spare parts and general stock materials quarterly to identify impaired inventory, including excess or obsolete inventory, based on historical sales trends, expected production usage, and the size and age of the aircraft fleet using the part. Impaired inventories are charged to Cost of products in the period the impairment occurs.

Included in inventory for commercial aircraft programs are amounts paid or credited in cash, or other consideration to certain airline customers, that are referred to as early issue sales consideration. Early issue sales consideration is recognized as a reduction to revenue when the delivery of the aircraft under contract occurs. If an airline customer does not perform and take delivery of the contracted aircraft, we believe that we would have the ability to recover amounts paid. However, to the extent early issue sales consideration exceeds advances and is not considered to be otherwise recoverable, it would be written off in the current period.

### **Precontract Costs**

We may, from time to time, incur costs in excess of the amounts required for existing contracts. If we determine the costs are probable of recovery from future orders, then we capitalize the precontract costs we incur, excluding start-up costs which are expensed as incurred. Capitalized precontract costs are included in Inventories in the accompanying Consolidated Statements of Financial Position. Should future orders not materialize or we determine the costs are no longer probable of recovery, the capitalized costs would be written off.

## **Property, Plant and Equipment**

Property, plant and equipment are recorded at cost, including applicable construction-period interest, less accumulated depreciation and are depreciated principally over the following estimated useful lives: new buildings and land improvements, from 10 to 40 years; and new machinery and equipment, from 4 to 20 years. The principal methods of depreciation are as follows: buildings and land improvements, 150% declining balance; and machinery and equipment, sum-of-the-years' digits. Capitalized internal use software is included in Other assets and amortized using the straight line method over 5 years. Capitalized software as a service is included in Other assets and amortized using the straight line method over the term of the hosting arrangement, which is typically no greater than 10 years. We periodically evaluate the appropriateness of remaining depreciable lives assigned to long-lived assets, including assets that may be subject to a management plan for disposition.

Long-lived assets held for sale are stated at the lower of cost or fair value less cost to sell. Long-lived assets held for use are subject to an impairment assessment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If the carrying value is no longer recoverable based upon the undiscounted future cash flows of the asset, the amount of the impairment is the difference between the carrying amount and the fair value of the asset.

**Leases** We determine if an arrangement is, or contains, a lease at the inception date. Operating leases are included in Other assets, with the related liabilities included in Accrued liabilities and Other long-term liabilities. Assets under finance leases, which primarily represent computer equipment, are included in Property, plant and equipment, net, with the related liabilities included in Short-term debt and current portion of long-term debt and Long-term debt on the Consolidated Statements of Financial Position.

Operating lease assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease assets and liabilities are recognized at the lease commencement date based on the estimated present value of lease payments over the lease term. We use our estimated incremental borrowing rate in determining the present value of lease payments. Variable components of the lease payments such as fair market value adjustments, utilities and maintenance costs are expensed as incurred and not included in determining the present value. Our lease terms include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense is recognized on a straight-line basis over the lease term.

We have real property lease agreements with lease and non-lease components which are accounted for as a single lease component.

## **Asset Retirement Obligations**

We record all known asset retirement obligations for which the liability's fair value can be reasonably estimated, including certain asbestos removal, asset decommissioning and contractual lease restoration obligations. Recorded amounts are not material.

We also have known conditional asset retirement obligations, such as certain asbestos remediation and asset decommissioning activities to be performed in the future, that are not reasonably estimable due to insufficient information about the timing and method of settlement of the obligation. Accordingly, these obligations have not been recorded in the Consolidated Financial Statements. A liability for these obligations will be recorded in the period when sufficient information regarding timing and method of settlement becomes available to make a reasonable estimate of the liability's fair value. In addition, there may be conditional asset retirement obligations that we have not yet discovered (e.g. asbestos may exist in certain buildings but we have not become aware of it through the normal course of

business), and therefore, these obligations also have not been included in the Consolidated Financial Statements.

### **Goodwill and Other Acquired Intangibles**

Goodwill and other acquired intangible assets with indefinite lives are not amortized, but are tested for impairment annually and when an event occurs or circumstances change such that it is more likely than not that an impairment may exist. Our annual testing date is April 1.

We test goodwill for impairment by performing a qualitative assessment or using a quantitative test. If we choose to perform a qualitative assessment and determine it is more likely than not that the carrying value of the net assets is more than the fair value of the related operations, the quantitative test is then performed; otherwise, no further testing is required. For operations where the quantitative test is used, we compare the carrying value of net assets to the estimated fair value of the related operations. If the fair value is determined to be less than carrying value, the shortfall up to the carrying value of the goodwill represents the amount of goodwill impairment.

Indefinite-lived intangibles consist of a brand and trade name and in-process research and development (IPR&D) acquired in business combinations. IPR&D is initially capitalized at fair value as an intangible asset with an indefinite life and assessed for impairment thereafter. IPR&D is reclassified to finite-lived acquired intangible assets when a project is completed and then amortized on a straight-line basis over the asset's estimated useful life. We test these intangibles for impairment by comparing the carrying values to current projections of related discounted cash flows. Any excess carrying value over the amount of discounted cash flows represents the amount of the impairment.

Our finite-lived acquired intangible assets are amortized on a straight-line basis over their estimated useful lives as follows: developed technology, from 4 to 14 years; product know-how, from 6 to 30 years; customer base, from 3 to 17 years; distribution rights, from 3 to 27 years; and other, from 1 to 32 years. We evaluate the potential impairment of finite-lived acquired intangible assets whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If the carrying value is no longer recoverable based upon the undiscounted future cash flows of the asset, the amount of the impairment is the difference between the carrying amount and the fair value of the asset.

### **Investments**

Time deposits are held-to-maturity investments that are carried at cost.

Available-for-sale debt securities include commercial paper, U.S. government agency securities and corporate debt securities. Available-for-sale debt securities are recorded at fair value, and unrealized gains and losses are recorded, net of tax, as a component of accumulated other comprehensive income. Realized gains and losses on available-for-sale debt securities are recognized based on the specific identification method. Available-for-sale debt securities are assessed for impairment quarterly.

The equity method of accounting is used to account for investments for which we have the ability to exercise significant influence, but not control, over an investee. Significant influence is generally deemed to exist if we have an ownership interest in the voting stock of an investee of between 20% and 50%. The cumulative earnings approach is used for cash flow classification of distributions received from equity method investments.

Other Equity investments are recorded at fair value, with gains and losses recorded through net earnings. Equity investments without readily determinable fair value are measured at cost, less impairments, plus or minus observable price changes. Equity investments without readily determinable fair value are assessed for impairment quarterly.



We classify investment income and loss on our Consolidated Statements of Operations based on whether the investment is operating or non-operating in nature. Operating investments align strategically and are integrated with our operations. Earnings from operating investments, including our share of income or loss from equity method investments, dividend income from other equity investments, and any impairments or gain/loss on the disposition of these investments, are recorded in Income from operating investments, net. Non-operating investments are those we hold for non-strategic purposes. Earnings from non-operating investments, including interest and dividends on marketable securities, and any impairments or gain/loss on the disposition of these investments are recorded in Other income/(loss), net.

## **Derivatives**

All derivative instruments are recognized in the financial statements and measured at fair value regardless of the purpose or intent of holding them. We use derivative instruments to principally manage a variety of market risks. For our cash flow hedges, the derivative's gain or loss is initially reported in comprehensive income and is subsequently reclassified into earnings in the same period(s) during which the hedged forecasted transaction affects earnings. We have agreements to purchase and sell aluminum to address long-term strategic sourcing objectives and non-U.S. business requirements. These agreements are derivatives for accounting purposes but are not designated for hedge accounting treatment. We also hold certain derivative instruments for economic purposes that are not designated for hedge accounting treatment. For these aluminum agreements and for other derivative instruments not designated for hedge accounting treatment, the changes in their fair value are recorded in earnings immediately.

## **Allowances for Losses on Certain Financial Assets**

We establish allowances for credit losses on accounts receivable, unbilled receivables, customer financing receivables and certain other financial assets. The adequacy of these allowances is assessed quarterly through consideration of factors such as customer credit ratings, bankruptcy filings, published or estimated credit default rates, age of the receivable, expected loss rates and collateral exposures. We determine the creditworthiness of our customers by assigning internal credit ratings based upon publicly available information and information obtained directly from the customers. Our rating categories are comparable to those used by major credit rating agencies.

## **Aircraft Valuation**

**Used aircraft under trade-in commitments and aircraft under repurchase commitments** In conjunction with signing a definitive agreement for the sale of new aircraft (Sale Aircraft), we have entered into trade-in commitments with certain customers that give them the right to trade in used aircraft at a specified price upon the purchase of Sale Aircraft. Additionally, we have entered into contingent repurchase commitments with certain customers wherein we agree to repurchase the Sale Aircraft at a specified price, generally 10 to 15 years after delivery of the Sale Aircraft. Our repurchase of the Sale Aircraft is contingent upon a future, mutually acceptable agreement for the sale of additional new aircraft. If we execute an agreement for the sale of additional new aircraft, and if the customer exercises its right to sell the Sale Aircraft to us, a contingent repurchase commitment would become a trade-in commitment. Our historical experience is that contingent repurchase commitments infrequently become trade-in commitments.

Exposure related to trade-in commitments may take the form of:

- (1) adjustments to revenue for the difference between the contractual trade-in price in the definitive agreement and our best estimate of the fair value of the trade-in aircraft as of the date of such agreement, which would be recognized upon delivery of the Sale Aircraft, and/or
- (2) charges to cost of products for adverse changes in the fair value of trade-in aircraft that occur subsequent to signing of a definitive agreement for Sale Aircraft but prior to the purchase of the used trade-in aircraft. Estimates based on current aircraft values would be included in Accrued liabilities.

The fair value of trade-in aircraft is determined using aircraft-specific data such as model, age and condition, market conditions for specific aircraft and similar models, and multiple valuation sources. This process uses our assessment of the market for each trade-in aircraft, which in most instances begins years before the return of the aircraft. There are several possible markets in which we continually pursue opportunities to place used aircraft. These markets include, but are not limited to, the resale market, which could potentially include the cost of long-term storage; the leasing market, with the potential for refurbishment costs to meet the leasing customer's requirements; or the scrap market. Trade-in aircraft valuation varies significantly depending on which market we determine is most likely for each aircraft. On a quarterly basis, we update our valuation analysis based on the actual activities associated with placing each aircraft into a market or using current published third-party aircraft valuations based on the type and age of the aircraft, adjusted for individual attributes and known conditions.

Used aircraft acquired by the Commercial Airplanes segment are included in Inventories at the lower of cost or net realizable value as it is our intent to sell these assets. To mitigate costs and enhance marketability, aircraft may be placed on operating lease. While on operating lease, the assets are included in Customer financing.

**Customer financing** Customer financing includes operating lease equipment, notes receivable and sales-type/finance leases. Sales-type/finance leases are treated as receivables, and allowances for losses are established as necessary. Customer financing is collateralized by security in the related asset.

We assess the fair value of equipment under operating leases, assets held for sale or re-lease, and collateral underlying receivables to determine if their fair values are less than the related customer financing assets' carrying values. Differences between carrying values and fair values of sales-type/finance leases and notes and other receivables, as determined by collateral value, are considered in determining the allowance for losses on receivables.

We use a median calculated from published collateral values from multiple third-party aircraft value publications based on the type and age of the aircraft to determine the fair value of aircraft. Under certain circumstances, we apply judgment based on the attributes of the specific aircraft or equipment, usually when the features or use of the aircraft vary significantly from the more generic aircraft attributes covered by outside publications.

**Impairment review for assets under operating leases and held for sale or re-lease** We evaluate for impairment assets under operating lease or assets held for sale or re-lease when events or changes in circumstances indicate that the expected undiscounted cash flow from the asset may be less than the carrying value. We use various assumptions when determining the expected undiscounted cash flow, including our intentions for how long we will hold an asset subject to operating lease before it is sold, the expected future lease rates, lease terms, residual value of the asset, periods in which the asset may be held in preparation for a follow-on lease, maintenance costs, remarketing costs and the remaining

economic life of the asset. We record assets held for sale at the lower of carrying value or fair value less costs to sell.

When we determine that impairment is indicated for an asset, the amount of impairment expense recorded is the excess of the carrying value over the fair value of the asset.

**Allowance for losses on customer financing receivables** We record the estimated allowance for potential losses on customer financing receivables in a valuation account. The four primary factors influencing the level of our allowance for losses on customer financing receivables are collateral values, internal customer credit ratings, default rates and expected loss rate.

We review the adequacy of the allowance for losses by assessing the collateral exposure, the applicable default rate and expected loss rate. Collateral exposure for a particular receivable is the excess of the carrying value of the receivable over the fair value of the related collateral. A receivable with an estimated fair value in excess of the carrying value is considered to have no collateral exposure. The applicable default rate is determined using two components: internal customer credit ratings and weighted average remaining contract term. We assign internal credit ratings for all customers and determine the creditworthiness of each customer based upon publicly available information and information obtained directly from our customers. Our rating categories are comparable to those used by the major credit rating agencies. We apply an expected loss rate, based on publicly available information, to the applicable default rate.

We have entered into agreements with certain customers that would entitle us to look beyond the specific collateral underlying the receivable for purposes of determining the collateral exposure as described above. Should the proceeds from the sale of the underlying collateral asset resulting from a default condition be insufficient to cover the carrying value of our receivable (creating a shortfall condition), these agreements would, for example, permit us to take the actions necessary to sell or retain certain other assets in which the customer has an equity interest and use the proceeds to cover the shortfall.

Each quarter we review the assigned internal customer credit ratings, published historical credit default rates for different rating categories and multiple third-party aircraft value publications as a basis to validate the reasonableness of the allowance for losses on customer financing receivables. There can be no assurance that actual results will not differ from estimates or that the consideration of these factors in the future will not result in an increase or decrease to the allowance for losses on customer financing receivables.

## **Warranties**

In conjunction with certain product sales, we provide warranties that cover factors such as non-conformance to specifications and defects in material and design. The majority of our warranties are issued by our BCA segment. Generally, aircraft sales are accompanied by a 3 to 4-year standard warranty for systems, accessories, equipment, parts, and software manufactured by us or manufactured to certain standards under our authorization. These warranties are included in the programs' estimate at completion. On occasion we have made commitments beyond the standard warranty obligation to correct fleet-wide major issues of a particular model, resulting in additional accrued warranty expense. Warranties issued by our BDS segment principally relate to sales of military aircraft and weapons systems. These sales are generally accompanied by a six month to two-year warranty period and cover systems, accessories, equipment, parts and software manufactured by us to certain contractual specifications. Estimated costs related to standard warranties are recorded in the period in which the related product delivery occurs. The warranty liability recorded at each balance sheet date reflects the estimated number of months of warranty coverage outstanding for products delivered times the average of historical monthly warranty payments, as well as additional amounts for

certain major warranty issues that exceed a normal claims level. Estimated costs of these additional warranty issues are considered changes to the initial liability estimate.

We provide guarantees to certain commercial airplane customers which include compensation provisions for failure to meet specified aircraft performance targets. We account for these performance guarantees as warranties. The estimated liability for these warranties is based on known and anticipated operational characteristics and forecasted customer operation of the aircraft relative to contractually specified performance targets, and anticipated settlements when contractual remedies are not specified. Estimated payments are recorded as a reduction of revenue at delivery of the related aircraft. We have agreements that require certain suppliers to compensate us for amounts paid to customers for failure of supplied equipment to meet specified performance targets. Claims against suppliers under these agreements are included in Inventories and recorded as a reduction in Cost of products at delivery of the related aircraft. These performance warranties and claims against suppliers are included in the programs' estimate at completion.

### Supplier Penalties

We record an accrual for supplier penalties when an event occurs that makes it probable that a supplier penalty will be incurred and the amount is reasonably estimable. Until an event occurs, we fully anticipate accepting all products procured under production-related contracts.

### Guarantees

We record a liability in Accrued liabilities for the fair value of guarantees. For credit guarantees, the liability is equal to the present value of the expected loss. We determine the expected loss by multiplying the creditor's default rate by the guarantee amount reduced by the expected recovery, if applicable. At inception of a guarantee, and adjusted each quarter, we also recognize a liability for the expected contingent loss.

### Note 2 – Goodwill and Acquired Intangibles

Changes in the carrying amount of goodwill for the years ended December 31, 2021 and 2020 were as follows:

	Commercial Airplanes	Defense, Space & Security	Global Services	Other	Total
Balance at December 31, 2019	\$1,313	\$3,219	\$3,441	\$87	\$8,060
Goodwill adjustments	3	5	13		21
Balance at December 31, 2020	\$1,316	\$3,224	\$3,454	\$87	\$8,081
Goodwill adjustments			(11)	(2)	(13)
Balance at December 31, 2021	<b>\$1,316</b>	<b>\$3,224</b>	<b>\$3,443</b>	<b>\$85</b>	<b>\$8,068</b>

As of December 31, 2021 and 2020, we had indefinite-lived intangible assets with carrying amounts of \$197 relating to trade names. During 2019, we recorded an impairment of \$293 within Cost of Sales, as a result of our decision to retire the Aviall brand and trade name. As of December 31, 2021 and 2020, we had an indefinite-lived intangible asset with a carrying amount of \$202 related to in process research and development for a next-generation air vehicle.

The gross carrying amounts and accumulated amortization of our acquired finite-lived intangible assets were as follows at December 31:

	2021		2020	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Distribution rights	\$2,554	\$1,321	\$2,812	\$1,427
Product know-how	553	413	553	384
Customer base	1,360	721	1,373	672
Developed technology	626	526	626	502
Other	301	250	303	238
Total	\$5,394	\$3,231	\$5,667	\$3,223

During 2020, we recorded impairments of \$178 within Cost of Sales related to our distribution rights, primarily driven by airlines' decisions to retire certain aircraft. Amortization expense for acquired finite-lived intangible assets for the years ended December 31, 2021 and 2020 was \$284 and \$317. Estimated amortization expense for the five succeeding years is as follows:

	2022	2023	2024	2025	2026
Estimated amortization expense	\$245	\$236	\$221	\$195	\$192

### Note 3 – Earnings Per Share

Basic and diluted earnings per share are computed using the two-class method, which is an earnings allocation method that determines earnings per share for common shares and participating securities. The undistributed earnings are allocated between common shares and participating securities as if all earnings had been distributed during the period. Participating securities and common shares have equal rights to undistributed earnings.

Basic earnings per share is calculated by taking net earnings, less earnings available to participating securities, divided by the basic weighted average common shares outstanding.

Diluted earnings per share is calculated by taking net earnings, less earnings available to participating securities, divided by the diluted weighted average common shares outstanding.

The elements used in the computation of basic and diluted earnings per share were as follows:

*(In millions - except per share amounts)*

Years ended December 31,	2021	2020	2019
Net loss attributable to Boeing Shareholders	<b>(\$4,202)</b>	(\$11,873)	(\$636)
Less: earnings available to participating securities			
Net loss available to common shareholders	<b>(\$4,202)</b>	(\$11,873)	(\$636)
<b>Basic</b>			
Basic weighted average shares outstanding	<b>588.0</b>	569.0	566.0
Less: participating securities <sup>(2)</sup>	<b>0.4</b>	0.4	0.6
Basic weighted average common shares outstanding	<b>587.6</b>	568.6	565.4
<b>Diluted</b>			
Basic weighted average shares outstanding	<b>588.0</b>	569.0	566.0
Dilutive potential common shares <sup>(1)</sup>			
Diluted weighted average shares outstanding	<b>588.0</b>	569.0	566.0
Less: participating securities <sup>(2)</sup>	<b>0.4</b>	0.4	0.6
Diluted weighted average common shares outstanding	<b>587.6</b>	568.6	565.4
<b>Net loss per share:</b>			
Basic	<b>(\$7.15)</b>	(\$20.88)	(\$1.12)
Diluted	<b>(7.15)</b>	(20.88)	(1.12)

<sup>(1)</sup> Diluted loss per share includes any dilutive impact of stock options, restricted stock units, performance-based restricted stock units and performance awards.

<sup>(2)</sup> Participating securities include certain instruments in our deferred compensation plan.

As a result of incurring a net loss for the years ended December 31, 2021, 2020 and 2019, potential common shares of 2.6 million, 1.6 million and 4.1 million, respectively, were excluded from diluted loss per share because the effect would have been antidilutive. In addition, the following table includes the number of shares that may be dilutive potential common shares in the future. These shares were not included in the computation of diluted loss per share because the effect was either antidilutive or the performance condition was not met.

*(Shares in millions)*

Years ended December 31,	2021	2020	2019
Performance awards	<b>2.9</b>	5.7	2.8
Performance-based restricted stock units	<b>0.8</b>	1.3	0.6
Restricted stock units	<b>0.4</b>	1.0	
Stock options	<b>0.3</b>		



**Note 4 – Income Taxes**

The components of Loss before income taxes were:

Years ended December 31,	2021	2020	2019
U.S.	<b>(\$5,475)</b>	(\$14,882)	(\$2,792)
Non-U.S.	<b>442</b>	406	533
Total	<b>(\$5,033)</b>	(\$14,476)	(\$2,259)

Income tax benefit consisted of the following:

Years ended December 31,	2021	2020	2019
Current tax (benefit)/expense			
U.S. federal	<b>(\$89)</b>	(\$3,968)	(\$308)
Non-U.S.	<b>147</b>	148	169
U.S. state	<b>42</b>	21	(161)
Total current	<b>100</b>	(3,799)	(300)
Deferred tax (benefit)/expense			
U.S. federal	<b>(855)</b>	652	(953)
Non-U.S.	<b>(12)</b>		(3)
U.S. state	<b>24</b>	612	(367)
Total deferred	<b>(843)</b>	1,264	(1,323)
Total income tax (benefit)/expense	<b>(\$743)</b>	(\$2,535)	(\$1,623)

Net income tax (refunds)/payments were (\$1,480), \$37 and \$837 in 2021, 2020 and 2019, respectively.

The following is a reconciliation of the U.S. federal statutory tax to actual income tax (benefit)/expense:

Years ended December 31,	2021		2020		2019	
	Amount	Rate	Amount	Rate	Amount	Rate
U.S. federal statutory tax	<b>(\$1,057)</b>	<b>21.0 %</b>	(\$3,039)	21.0 %	(\$474)	21.0 %
Valuation allowance	<b>512</b>	<b>(10.2)</b>	2,603	(18.0)	25	(1.1)
Research and development credits	<b>(189)</b>	<b>3.8</b>	(284)	2.0	(382)	16.9
State income tax provision, net of effects on U.S. federal tax	<b>(94)</b>	<b>1.9</b>	(168)	1.2	(45)	2.0
Tax on non-U.S. activities	<b>47</b>	<b>(0.9)</b>	7	(0.1)	20	(0.9)
Impact of CARES Act <sup>(1)</sup>	<b>3</b>	<b>(0.1)</b>	(1,175)	8.1		
Other provision adjustments	<b>41</b>	<b>(0.9)</b>	234	(1.7)	66	(3.0)
Excess tax benefits <sup>(2)</sup>	<b>(6)</b>	<b>0.1</b>	(82)	0.6	(180)	8.0
Audit settlements <sup>(3)</sup>			(587)	4.1	(371)	16.4
Foreign derived intangible income <sup>(4)</sup>			(31)	0.2	(229)	10.1
Tax deductible dividends			(13)	0.1	(53)	2.4
Income tax (benefit)/expense	<b>(\$743)</b>	<b>14.7 %</b>	(\$2,535)	17.5 %	(\$1,623)	71.8 %

<sup>(1)</sup> On March 27, 2020, the CARES Act was enacted, which includes a five year net operating loss (NOL) carryback provision which enabled us to benefit from the 2020 U.S. federal tax NOL at the former federal tax rate of 35%. In 2021 and 2020, we recorded tax expense of \$3 and tax benefits of \$1,175 related to the NOL carryback provision.

<sup>(2)</sup> In 2021, 2020 and 2019, we recorded excess tax benefits related to employee share-based payments of \$6, \$82 and \$180, respectively.

<sup>(3)</sup> In the fourth quarter of 2020, we recorded a tax benefit of \$587 related to the settlement of the 2015-2017 federal tax audit. In the fourth quarter of 2019, we recorded a tax benefit of \$371 related to the settlement of state tax audits spanning 15 tax years.

<sup>(4)</sup> In 2020 and 2019, we recorded tax benefits related to foreign derived intangible income of \$31 and \$229, respectively which effectively apply a lower U.S. tax rate to intangible income derived from serving non-U.S. markets.

Significant components of our deferred tax assets/(liabilities) at December 31 were as follows:

	2021	2020
Inventory and long-term contract methods of income recognition	<b>(\$3,827)</b>	(\$4,313)
Pension benefits	<b>1,739</b>	3,029
Fixed assets, intangibles and goodwill	<b>(1,657)</b>	(1,645)
Federal net operating loss, credit, interest and other carryovers <sup>(1)</sup>	<b>1,522</b>	317
Other employee benefits	<b>991</b>	957
State net operating loss, credit, interest and other carryovers <sup>(2)</sup>	<b>929</b>	777
Other postretirement benefit obligations	<b>913</b>	1,023
Accrued expenses and reserves	<b>763</b>	808
737 MAX customer concessions and other considerations	<b>682</b>	1,253
Other	<b>227</b>	(36)
Gross deferred tax assets/(liabilities) before valuation allowance	<b>\$2,282</b>	<b>\$2,170</b>
Valuation allowance	<b>(2,423)</b>	(3,094)
Net deferred tax assets/(liabilities) after valuation allowance	<b>(\$141)</b>	<b>(\$924)</b>

(1) Of the deferred tax asset for federal net operating loss, credit, interest and other carryovers, \$536 expires on or before December 31, 2041 and \$986 may be carried over indefinitely.

(2) Of the deferred tax asset for state net operating loss, credit, interest and other carryovers, \$453 expires on or before December 31, 2041 and \$476 may be carried over indefinitely.

Net deferred tax assets/(liabilities) at December 31 were as follows:

	2021	2020
Deferred tax assets	<b>\$11,258</b>	\$11,600
Deferred tax liabilities	<b>(8,976)</b>	(9,430)
Valuation allowance	<b>(2,423)</b>	(3,094)
Net deferred tax assets/(liabilities)	<b>(\$141)</b>	<b>(\$924)</b>

The Company's deferred income tax assets of \$11,258 can be used in future years to offset taxable income and reduce income taxes payable. The Company's deferred income tax liabilities of \$8,976 will partially offset deferred income tax assets and result in higher taxable income in future years and increase income taxes payable. Tax law determines whether future reversals of temporary differences will result in taxable and deductible amounts that offset each other in future years. The particular years in which temporary differences result in taxable or deductible amounts generally are determined by the timing of the recovery of the related asset or settlement of the related liability. The deferred income tax assets and liabilities relate primarily to U.S. federal and state tax jurisdictions. From a U.S. federal tax perspective, the Company generated a tax NOL in 2020 that was carried back to prior years when the tax rate was 35% due to the CARES Act benefit as described above. The Company generated tax NOL and interest carryovers in 2021 that can be carried forward indefinitely and federal research and development credits that can be carried forward 20 years.

In the fourth quarter of 2020 and throughout 2021, the Company was in a three-year cumulative pre-tax loss position. We also normalized earnings and other comprehensive income (OCI) for certain non-recurring items and reached a normalized three-year cumulative loss position in 2021. Adjustments to normalize earnings included non-recurring items for certain 737 MAX expenses, an agreement with the Department of Justice, severance costs and remeasurement gains and losses from the annual

remeasurement of pension and other postretirement benefit obligations. For purposes of assessing the recoverability of deferred tax assets, the Company determined that it could not include future projected earnings in the analysis due to recent history of losses.

As of December 31, 2021 and 2020, the Company has recorded valuation allowances of \$2,423 and \$3,094 primarily for certain federal deferred tax assets, as well as for certain federal and state net operating loss and tax credit carryforwards. To measure the valuation allowance, the Company estimated in what year each of its deferred tax assets and liabilities would reverse using systematic and logical methods to estimate the reversal patterns. Based on these methods, deferred tax liabilities are assumed to reverse and generate taxable income over the next 5 to 10 years while deferred tax assets related to pension and other postretirement benefit obligations are assumed to reverse and generate tax deductions over the next 15 to 20 years. The valuation allowance primarily results from not having sufficient income from deferred tax liability reversals in the appropriate future periods to support the realization of deferred tax assets.

During 2021, the Company decreased the valuation allowance by \$671. This reflects a tax benefit of \$1,206 included in OCI primarily due to the net actuarial gains that resulted from the annual remeasurement of pension assets and liabilities. This was partially offset by tax expense of \$512 recorded in continuing operations and an increase of \$23 related to the associated federal benefit of state impacts.

Until the Company generates sustained levels of profitability, additional valuation allowances may have to be recorded with corresponding adverse impacts on earnings and/or OCI.

The Tax Cuts and Jobs Act (TCJA) one-time repatriation tax and Global Intangible Low Tax Income liabilities effectively taxed the undistributed earnings previously deferred from U.S. income taxes. We have not provided for deferred income taxes on the undistributed earnings from certain non-U.S. subsidiaries because such earnings are considered to be indefinitely reinvested. If such earnings were to be distributed, any deferred income taxes would not be significant.

As of December 31, 2021 and 2020, the amounts accrued for the payment of income tax-related interest and penalties included in the Consolidated Statements of Financial Position were not significant. The amounts of interest included in the Consolidated Statements of Operations were not significant for the years ended December 31, 2021, 2020 and 2019.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	2021	2020	2019
Unrecognized tax benefits – January 1	<b>\$966</b>	\$1,476	\$2,412
Gross increases – tax positions in prior periods	<b>64</b>	44	100
Gross decreases – tax positions in prior periods	<b>(245)</b>	(581)	(1,418)
Gross increases – current period tax positions	<b>73</b>	136	344
Gross decreases – current period tax positions			(1)
Settlements		(109)	39
Statute Lapse			
Unrecognized tax benefits – December 31	<b>\$858</b>	\$966	\$1,476

As of December 31, 2021, 2020 and 2019, the total amount of unrecognized tax benefits include \$790, \$734 and \$1,287, respectively, that would affect the effective tax rate, if recognized. As of December 31, 2021, these amounts are primarily associated with the amount of research tax credits claimed and various other matters.

Federal income tax audits have been settled for all years prior to 2018. The Internal Revenue Service (IRS) began the 2018-2019 federal tax audit in the first quarter of 2021 and recently added tax year 2020 to the audit. We are also subject to examination in major state and international jurisdictions for the 2008-2020 tax years. We believe appropriate provisions for all outstanding tax issues have been made for all jurisdictions and all open years.

#### Note 5 – Accounts Receivable, net

Accounts receivable at December 31 consisted of the following:

	2021	2020
U.S. government contracts <sup>(1)</sup>	\$1,180	\$811
Commercial Airplanes	279	17
Global Services <sup>(2)</sup>	1,456	1,437
Defense, Space, & Security <sup>(2)</sup>	111	120
Other	5	14
Less valuation allowance	(390)	(444)
Total	\$2,641	\$1,955

<sup>(1)</sup> Includes foreign military sales through the U.S. government

<sup>(2)</sup> Excludes U.S. government contracts

#### Note 6 – Allowances for Losses on Financial Assets

The change in allowances for expected credit losses for the years ended December 31, 2021 and 2020 consisted of the following:

	Accounts receivable	Unbilled receivables	Other Current Assets	Customer financing	Other Assets	Total
Balance at January 1, 2020	(\$138)	(\$81)	(\$38)	(\$5)	(\$75)	(\$337)
Changes in estimates	(314)	(48)	(34)	(12)	(66)	(474)
Write-offs	8					8
Recoveries					1	1
Balance at December 31, 2020	(444)	(129)	(72)	(17)	(140)	(802)
Balance at January 1, 2021	(444)	(129)	(72)	(17)	(140)	(802)
Changes in estimates	(24)	(11)	6	(1)	(59)	(89)
Write-offs	77	49	4		13	143
Recoveries	1					1
Balance at December 31, 2021	(\$390)	(\$91)	(\$62)	(\$18)	(\$186)	(\$747)

## Note 7 – Inventories

Inventories at December 31 consisted of the following:

	2021	2020
Long-term contracts in progress	\$872	\$823
Commercial aircraft programs	68,106	70,153
Commercial spare parts, used aircraft, general stock materials and other	9,845	10,739
Total	\$78,823	\$81,715

Commercial spare parts, used aircraft, general stock materials and other includes capitalized precontract costs of \$648 at December 31, 2021 and \$733 at December 31, 2020 primarily related to KC-46A Tanker and Commercial Crew. See Note 13.

### Commercial Aircraft Programs

The decrease in commercial aircraft programs inventory during 2021 reflects lower 737 MAX inventory due to resumption of deliveries and a reach-forward loss on the 787 program. These decreases were partially offset by a continued buildup of 787 aircraft, as well as growth in 777X inventory. Commercial aircraft programs inventory includes approximately 335 737 MAX aircraft and 110 787 aircraft at December 31, 2021 as compared with 425 737 MAX aircraft and 80 787 aircraft at December 31, 2020.

A number of customers have requested to defer deliveries or to cancel orders. We are currently remarketing certain aircraft and may have to remarket additional aircraft in future periods. If we are unable to successfully remarket the aircraft, determine further production rate reductions are necessary, and/or contract the program accounting quantities, future earnings may be reduced and/or additional reach-forward losses may have to be recorded.

At December 31, 2021 and 2020, commercial aircraft programs inventory included the following amounts related to the 737 program: deferred production costs of \$1,296 and \$2,159 and unamortized tooling and other non-recurring costs of \$617 and \$480. At December 31, 2021, \$1,906 of 737 deferred production costs, unamortized tooling and other non-recurring costs are expected to be recovered from units included in the program accounting quantity that have firm orders, and \$7 is expected to be recovered from units included in the program accounting quantity that represent expected future orders.

At December 31, 2021 and 2020, commercial aircraft programs inventory included the following amounts related to the 777X program: \$3,363 and \$1,727 of work in process and \$3,521 and \$3,295 of unamortized tooling and other non-recurring costs.

During the fourth quarter of 2020, we determined that estimated costs to complete the 777X program plus costs already included in 777X inventory exceed estimated revenues from the program. The resulting reach-forward loss of \$6,493 was recorded as a reduction to deferred production costs. As a result, 777X deferred production costs were immaterial at December 31, 2020 and remain immaterial at December 31, 2021. The level of profitability on the 777X program will be subject to a number of factors. These factors include continued market uncertainty, the impacts of COVID-19 on our production system as well as impacts on our supply chain and customers, further production rate adjustments for the 777X or other commercial aircraft programs, any contraction of the accounting quantity and potential risks associated with the testing program and the timing of aircraft certification. One or more of these factors could result in additional reach-forward losses on the 777X program in future periods.

During the fourth quarter of 2021, we determined that estimated costs to complete the 787 program plus costs already included in 787 inventory exceed estimated revenues from the program. The resulting reach-forward loss of \$3,460 was recorded as a reduction to deferred production costs. At



December 31, 2021 and 2020, commercial aircraft programs inventory included the following amounts related to the 787 program: deferred production costs of \$11,693 and \$14,976, \$1,907 and \$1,865 of supplier advances, and \$1,815 and \$1,863 of unamortized tooling and other non-recurring costs. At December 31, 2021, \$9,024 of 787 deferred production costs, unamortized tooling and other non-recurring costs are expected to be recovered from units included in the program accounting quantity that have firm orders, and \$4,484 is expected to be recovered from units included in the program accounting quantity that represent expected future orders.

Commercial aircraft programs inventory included amounts credited in cash or other consideration (early issue sales consideration) to airline customers totaling \$3,290 and \$2,992 at December 31, 2021 and 2020.

#### **Note 8 – Contracts with Customers**

Unbilled receivables increased from \$7,995 at December 31, 2020 to \$8,620 at December 31, 2021, primarily driven by revenue recognized at BDS and BGS in excess of billings.

Advances and progress billings increased from \$50,488 at December 31, 2020 to \$52,980 at December 31, 2021, primarily driven by advances on orders received at BDS, BCA and BGS, partially offset by revenue recognized and the return of customer advances at BCA.

Revenues recognized for the years ended December 31, 2021 and 2020 from amounts recorded as Advances and progress billings at the beginning of each year were \$11,336 and \$10,360.

The following table summarizes our contract assets under long-term contracts that were unbillable or related to outstanding claims as of December 31:

	Unbilled		Claims	
	2021	2020	2021	2020
Current	<b>\$5,870</b>	\$5,628	<b>\$4</b>	
Expected to be collected after one year	<b>2,841</b>	2,496	<b>11</b>	\$18
Less valuation allowance	<b>(91)</b>	(129)		
<b>Total</b>	<b>\$8,620</b>	\$7,995	<b>\$15</b>	\$18

Unbilled receivables related to commercial customer incentives expected to be collected after one year were \$131 and \$178 at December 31, 2021 and 2020. Unbilled receivables related to claims are items that we believe are earned, but are subject to uncertainty concerning their determination or ultimate realization.

## Note 9 – Customer Financing

Customer financing primarily relates to our BCC segment. Financing arrangements typically range in terms from 1 to 12 years and may include options to extend or terminate the lease. Certain leases include provisions to allow the lessee to purchase the underlying aircraft at a specified price.

Customer financing consisted of the following at December 31:

	2021	2020
Financing receivables:		
Investment in sales-type/finance leases	\$944	\$919
Notes	412	420
Total financing receivables	1,356	1,339
Less allowance for losses on receivables	(18)	(17)
Financing receivables, net	1,338	1,322
Operating lease equipment, at cost, less accumulated depreciation of \$58 and \$209	474	715
Total	\$1,812	\$2,037

The components of investment in sales-type/finance leases at December 31 were as follows:

	2021	2020
Minimum lease payments receivable	\$1,099	\$756
Estimated residual value of leased assets	110	299
Unearned income	(265)	(136)
Total	\$944	\$919

At December 31, 2021 and 2020, \$378 and \$380 were determined to be uncollectible financing receivables and placed on non-accrual status. We recorded no allowance for losses on these uncollectible financing receivables as the collateral values exceeded the carrying values of the receivables. Customer financing interest income received for the years ended December 31, 2021 and 2020 was \$18 and \$34.

There were no past due customer financing receivables as of December 31, 2021.

Our financing receivable balances at December 31 by internal credit rating category and year of origination consisted of the following:

Rating categories	Current	2020	2019	2018	2017	Prior	Total
BBB						<b>\$108</b>	\$108
BB	<b>\$235</b>	<b>\$120</b>	<b>\$42</b>	<b>\$13</b>		<b>126</b>	536
B	<b>76</b>				<b>\$49</b>	<b>142</b>	267
CCC		<b>7</b>	<b>26</b>		<b>235</b>	<b>177</b>	445
Total carrying value of financing receivables	\$311	\$127	\$68	\$13	\$284	\$553	\$1,356

At December 31, 2021, our allowance for losses related to receivables with ratings of CCC, B, BB and BBB. We applied default rates that averaged 24.2%, 5.5%, 2.6% and 0.2%, respectively, to the exposure associated with those receivables.

### Customer Financing Exposure

The majority of our customer financing portfolio is concentrated in the following aircraft models at December 31:

	<b>2021</b>	2020
717 Aircraft (\$62 and \$98 accounted for as operating leases)	<b>\$603</b>	\$637
747-8 Aircraft (\$0 and \$121 accounted for as operating leases)	<b>435</b>	480
737 Aircraft (\$145 and \$214 accounted for as operating leases)	<b>163</b>	235
777 Aircraft (\$225 and \$216 accounted for as operating leases)	<b>233</b>	225
MD-80 Aircraft (Accounted for as sales-type finance leases)	<b>142</b>	167
757 Aircraft (\$0 and \$4 accounted for as operating leases)	<b>126</b>	147
747-400 Aircraft (\$1 and \$19 accounted for as operating leases)	<b>50</b>	71

Operating lease equipment primarily includes large commercial jet aircraft.

Impairment charges related to customer financing operating lease assets for the years ended December 31 were as follows:

	<b>2021</b>	2020	2019
Boeing Capital	<b>\$23</b>	\$32	\$53
Other Boeing	<b>8</b>	(8)	217
Total	<b>\$31</b>	\$24	\$270

Lease income recorded in Revenue on the Consolidated Statements of Operations for the years ended December 31, 2021 and 2020 included \$54 and \$57 from sales-type/finance leases, and \$68 and \$118 from operating leases. Profit at the commencement of sales-type leases was recorded in revenue for the years ended December 31, 2021 and 2020 in the amount of \$78 and \$26.

As of December 31, 2021, undiscounted cash flows for notes receivable, sales-type/finance and operating leases over the next five years and thereafter are as follows:

	Notes receivable	Sales-type/ finance leases	Operating leases
Year 1	<b>\$194</b>	<b>\$201</b>	<b>\$66</b>
Year 2	<b>34</b>	<b>180</b>	<b>55</b>
Year 3	<b>18</b>	<b>171</b>	<b>39</b>
Year 4	<b>19</b>	<b>141</b>	<b>18</b>
Year 5	<b>21</b>	<b>127</b>	<b>15</b>
Thereafter	<b>126</b>	<b>279</b>	<b>37</b>
Total financing receipts	<b>412</b>	<b>1,099</b>	<b>230</b>
Less imputed interest		<b>(265)</b>	
Estimated unguaranteed residual values		<b>110</b>	
<b>Total</b>	<b>\$412</b>	<b>\$944</b>	<b>\$230</b>

At December 31, 2021 and December 31, 2020, unguaranteed residual values were \$110 and \$299. Guaranteed residual values at December 31, 2021 were not significant.

#### **Note 10 – Property, Plant and Equipment**

Property, plant and equipment at December 31 consisted of the following:

	<b>2021</b>	2020
Land	<b>\$377</b>	\$512
Buildings and land improvements	<b>14,152</b>	14,415
Machinery and equipment	<b>15,692</b>	16,060
Construction in progress	<b>1,235</b>	1,340
Gross property, plant and equipment	<b>31,456</b>	32,327
Less accumulated depreciation	<b>(20,538)</b>	(20,507)
<b>Total</b>	<b>\$10,918</b>	\$11,820

Depreciation expense was \$1,488, \$1,533 and \$1,567 for the years ended December 31, 2021, 2020 and 2019, respectively. Interest capitalized during the years ended December 31, 2021, 2020 and 2019 totaled \$76, \$81 and \$83, respectively.

During 2021 and 2020, we acquired \$46 and \$47 of property, plant and equipment through non-cash investing and financing transactions. Accounts payable related to purchases of property, plant and equipment were \$295 and \$182 for the years ended December 31, 2021 and 2020.

## Note 11 – Investments

Our investments, which are recorded in Short-term and other investments or Investments, consisted of the following at December 31:

	2021	2020
Equity method investments <sup>(1)</sup>	\$930	\$936
Time deposits	7,676	17,154
Available for sale debt instruments	464	596
Equity and other investments	45	85
Restricted cash & cash equivalents <sup>(2)</sup>	52	83
Total	\$9,167	\$18,854

<sup>(1)</sup> Dividends received were \$77 and \$149 during 2021 and 2020. Retained earnings at December 31, 2021 include undistributed earnings from our equity method investments of \$136. During the third quarter of 2021, Boeing and AE Industrial Partners announced a strategic partnership to establish a dedicated aerospace venture fund. This transaction resulted in the deconsolidation of HorizonX and generated a gain of \$117 which is included in Income from operating investments, net.

<sup>(2)</sup> Reflects amounts restricted in support of our property sales, workers' compensation programs and insurance premiums.

Allowance for losses on available for sale debt instruments are assessed quarterly. All instruments are considered investment grade and, as such, we have not recognized an allowance for credit losses as of December 31, 2021.

## Equity Method Investments

Our equity method investments consisted of the following as of December 31:

	Segment	Ownership Percentages	Investment Balance	
			2021	2020
United Launch Alliance	BDS	50%	\$617	\$735
Other	BCA, BDS, BGS and Other		313	201
Total equity method investments			\$930	\$936

## Note 12 – Leases

Our operating lease assets primarily represent manufacturing and research and development facilities, warehouses and offices. Total operating lease expense was \$380 and \$360 for the years ended December 31, 2021 and 2020, of which \$73 and \$71 was attributable to variable lease expenses.

For the years ended December 31, 2021 and 2020, cash payments against operating lease liabilities totaled \$301 and \$299 and non-cash transactions totaled \$443 and \$371 to recognize operating assets and liabilities for new leases.

Supplemental Consolidated Statement of Financial Position information related to leases consisted of the following at December 31:

	2021	2020
Operating leases:		
Operating lease right-of-use assets	<b>\$1,437</b>	\$1,252
Current portion of lease liabilities	<b>268</b>	268
Non-current portion of lease liabilities	<b>1,271</b>	1,084
Total operating lease liabilities	<b>\$1,539</b>	\$1,352
Weighted average remaining lease term (years)	<b>13</b>	9
Weighted average discount rate	<b>3.82%</b>	3.43%

Maturities of operating lease liabilities for the next five years are as follows:

	Operating leases
2022	<b>\$301</b>
2023	<b>253</b>
2024	<b>190</b>
2025	<b>154</b>
2026	<b>134</b>
Thereafter	<b>1,083</b>
Total lease payments	<b>2,115</b>
Less imputed interest	<b>(576)</b>
Total	<b>\$1,539</b>

As of December 31, 2021, we have entered into leases that have not yet commenced of \$265, for a maintenance, repair and overhaul hangar and a paint hangar that will support military aircraft programs. These leases will commence between 2022 and 2023 with lease terms of 7 years to 25 years.



## Note 13 – Liabilities, Commitments and Contingencies

### Accrued Liabilities

Accrued liabilities at December 31 consisted of the following:

	2021	2020
Accrued compensation and employee benefit costs	\$6,573	\$7,121
737 MAX customer concessions and other considerations	2,940	5,537
Department of Justice agreement liability		744
Environmental	605	565
Product warranties	1,900	1,527
Forward loss recognition	2,014	1,913
Income taxes payable	5	43
Current portion of lease liabilities	268	268
Other	4,150	4,453
Total	\$18,455	\$22,171

### 737 MAX Grounding

In 2019, following two fatal 737 MAX accidents, the Federal Aviation Administration (FAA) and non-U.S. civil aviation authorities issued orders suspending commercial operations of 737 MAX aircraft. Deliveries of the 737 MAX were suspended following these orders. Deliveries in the U.S. resumed in late 2020 following rescission by the FAA of its grounding order. In addition, several other non-U.S. civil aviation authorities, including the Brazilian National Civil Aviation Agency, Transport Canada, and the European Union Aviation Safety Agency have subsequently approved return of operations, allowing us to resume deliveries in those jurisdictions. The Civil Aviation Administration of China issued an airworthiness directive in the fourth quarter of 2021 outlining actions required for airlines to return to service. We expect 737 MAX deliveries to China to resume in 2022, subject to final regulatory approvals, although risk remains around the timing and rate of those deliveries. Over 185 countries have approved the resumption of 737 MAX operations. The 737 MAX remains grounded in a small number of non-U.S. jurisdictions.

We have gradually increased production rates in 2020 and 2021 and continue to expect to increase the production rate to 31 per month by early 2022, as well as implement further gradual production rate increases in subsequent periods based on market demand and supply chain capacity.

We produced at abnormally low production rates in 2020 and 2021 and expensed abnormal production costs of \$1,887 and \$2,567 during the years ended December 31, 2021 and 2020. We do not expect the remaining abnormal costs related to the 737 MAX to be significant and expect most of the remainder to be incurred in early 2022.

In 2021, we delivered 245 aircraft. We have approximately 335 airplanes in inventory as of December 31, 2021 and we anticipate delivering most of these aircraft by the end of 2023. We continue to work with customers who have requested to defer deliveries or to cancel orders for 737 MAX aircraft, and we are remarketing and/or delaying deliveries of certain aircraft included within inventory. In the event that we are unable to resume aircraft deliveries in China and/or ramp up deliveries consistent with our assumptions, our expectation of delivery timing and our expectation regarding future gradual production rate increases could be impacted.

We have also recorded additional expenses of \$175, \$416, and \$328 due to the 737 MAX grounding during 2021, 2020, and 2019, respectively. The expenses include costs related to storage, inventory impairment, pilot training, and software updates.

The following table summarizes changes in the 737 MAX customer concessions and other considerations liability during 2021 and 2020.

	2021	2020
Beginning balance – January 1	<b>\$5,537</b>	\$7,389
Reductions for payments made	<b>(2,535)</b>	(2,188)
Reductions for concessions and other in-kind considerations	<b>(48)</b>	(162)
Changes in estimates	<b>(14)</b>	498
Ending balance – December 31	<b>\$2,940</b>	\$5,537

The liability balance of \$2.9 billion at December 31, 2021 includes \$2.2 billion of contracted customer concessions and other liabilities and \$0.7 billion that remains subject to negotiation with customers. The contracted amount includes \$1.0 billion expected to be liquidated by lower customer delivery payments, \$1.0 billion expected to be paid in cash and \$0.2 billion in other concessions. Of the cash payments to customers, we expect to pay \$0.8 billion in 2022. The type of consideration to be provided for the remaining \$0.7 billion will depend on the outcomes of negotiations with customers.

## Environmental

The following table summarizes environmental remediation activity during the years ended December 31, 2021 and 2020.

	2021	2020
Beginning balance – January 1	<b>\$565</b>	\$570
Reductions for payments made	<b>(59)</b>	(42)
Changes in estimates	<b>99</b>	37
Ending balance – December 31	<b>\$605</b>	\$565

The liabilities recorded represent our best estimate or the low end of a range of reasonably possible costs expected to be incurred to remediate sites, including operation and maintenance over periods of up to 30 years. It is reasonably possible that we may incur charges that exceed these recorded amounts because of regulatory agency orders and directives, changes in laws and/or regulations, higher than expected costs and/or the discovery of new or additional contamination. As part of our estimating process, we develop a range of reasonably possible alternate scenarios that includes the high end of a range of reasonably possible cost estimates for all remediation sites for which we have sufficient information based on our experience and existing laws and regulations. There are some potential remediation obligations where the costs of remediation cannot be reasonably estimated. At December 31, 2021 and 2020, the high end of the estimated range of reasonably possible remediation costs exceeded our recorded liabilities by \$1,094 and 1,095.

## Product Warranties

The following table summarizes product warranty activity recorded during the years ended December 31, 2021 and 2020.

	2021	2020
Beginning balance – January 1	<b>\$1,527</b>	\$1,267
Additions for current year deliveries	<b>116</b>	65
Reductions for payments made	<b>(241)</b>	(260)
Changes in estimates	<b>498</b>	455
Ending balance – December 31	<b>\$1,900</b>	\$1,527

The increase in the product warranty reserve during the year ended December 31, 2020 is primarily driven by charges related to “pickle forks” on 737NG aircraft. During 2019, we detected cracks in the “pickle forks”, a frame fitting component of the structure connecting the wings to the fuselages of 737NG aircraft. We notified the FAA, which issued a directive requiring that certain 737NG airplanes be inspected. In 2019, we estimated the number of aircraft that would have to be repaired in the future and provisioned for the estimated costs of completing the repairs. During the first quarter of 2020, we recognized charges of \$336 based on revised engineering and fleet utilization estimates as well as updated repair cost estimates. We cannot estimate a range of reasonably possible losses, if any, in excess of amounts recognized due to the ongoing nature of the inspections and repairs and pending the completion of investigations into the cause of the condition.

## Commercial Aircraft Commitments

In conjunction with signing definitive agreements for the sale of new aircraft (Sale Aircraft), we have entered into trade-in commitments with certain customers that give them the right to trade in used aircraft at a specified price upon the purchase of Sale Aircraft. The probability that trade-in commitments will be exercised is determined by using both quantitative information from valuation sources and qualitative information from other sources. The probability of exercise is assessed quarterly, or as events trigger a change, and takes into consideration the current economic and airline industry environments. Trade-in commitments, which can be terminated by mutual consent with the customer, may be exercised only during the period specified in the agreement and require advance notice by the customer.

Trade-in commitment agreements at December 31, 2021 have expiration dates from 2022 through 2028. At December 31, 2021 and 2020, total contractual trade-in commitments were \$612 and \$950. As of December 31, 2021 and 2020, we estimated that it was probable we would be obligated to perform on certain of these commitments with net amounts payable to customers totaling \$283 and \$599, and the fair value of the related trade-in aircraft was \$283 and \$580.

## Financing Commitments

Financing commitments related to aircraft on order, including options and those proposed in sales campaigns, and refinancing of delivered aircraft, totaled \$12,905 and \$11,512 as of December 31, 2021 and 2020. The estimated earliest potential funding dates for these commitments as of December 31, 2021 are as follows:

	Total
2022	\$2,034
2023	3,604
2024	2,490
2025	2,105
2026	799
Thereafter	1,873
	<u>\$12,905</u>

As of December 31, 2021, all of these financing commitments relate to customers we believe have less than investment-grade credit. We have concluded that no reserve for future potential losses is required for these financing commitments based upon the terms, such as collateralization and interest rates, under which funding would be provided.

## Funding Commitments

We have commitments to make additional capital contributions of \$248 to joint ventures over the next six years.

## Standby Letters of Credit and Surety Bonds

We have entered into standby letters of credit and surety bonds with financial institutions primarily relating to the guarantee of our future performance on certain contracts. Contingent liabilities on outstanding letters of credit agreements and surety bonds aggregated approximately \$3,634 and \$4,238 as of December 31, 2021 and 2020.

## Company Owned Life Insurance

McDonnell Douglas Corporation insured its executives with Company Owned Life Insurance (COLI), which are life insurance policies with a cash surrender value. Although we do not use COLI currently, these obligations from the merger with McDonnell Douglas are still a commitment at this time. We have loans in place to cover costs paid or incurred to carry the underlying life insurance policies. As of December 31, 2021 and 2020, the cash surrender value was \$374 and \$395 and the total loans were \$360 and \$382. As we have the right to offset the loans against the cash surrender value of the policies, we present the net asset in Other assets on the Consolidated Statements of Financial Position as of December 31, 2021 and 2020.

## BDS Fixed-Price Development Contracts

We have recorded earnings charges for losses on a number of fixed-price development contracts. Fixed-price development work is inherently uncertain and subject to significant variability in estimates of the cost and time required to complete the work. The operational and technical complexities of these contracts create financial risk, which could trigger additional earnings charges, termination provisions, order cancellations or other financially significant exposure.

## KC-46A Tanker

In 2011, we were awarded a contract from the U.S. Air Force (USAF) to design, develop, manufacture and deliver four next generation aerial refueling tankers. This Engineering, Manufacturing and Development (EMD) contract is a fixed-price incentive fee contract and involves highly complex designs and systems integration. Since 2016, the USAF has authorized seven low rate initial production (LRIP) lots for a total of 94 aircraft. The EMD contract and authorized LRIP lots are valued at approximately \$19 billion as of December 31, 2021.

At December 31, 2021, we had approximately \$243 of capitalized precontract costs and \$409 of potential termination liabilities to suppliers.

## Recoverable Costs on Government Contracts

Our final incurred costs for each year are subject to audit and review for allowability by the U.S. government, which can result in payment demands related to costs they believe should be disallowed. We work with the U.S. government to assess the merits of claims and where appropriate reserve for amounts disputed. If we are unable to satisfactorily resolve disputed costs, we could be required to record an earnings charge and/or provide refunds to the U.S. government.

## Severance

The following table summarizes changes in the severance liability during 2021 and 2020:

	2021	2020
Beginning balance – January 1	\$283	
Initial liability recorded in the second quarter of 2020		\$652
Reductions for payments made	(90)	(658)
Changes in estimates	(182)	289
Ending balance – December 31	\$11	\$283

During 2020, the Company recorded severance costs for approximately 26,000 employees expected to leave the Company through a combination of voluntary and involuntary terminations. The severance packages are consistent with the Company's ongoing compensation and benefits plans. During the first quarter of 2021, we reduced the estimated number of employees expected to leave the Company through voluntary and involuntary terminations to approximately 23,000. During the second quarter of 2021, we further reduced the estimated number of employees expected to leave the company through voluntary and involuntary terminations to approximately 19,000. As of December 31, 2021, our severance liability primarily relates to remaining severance payments to terminated employees.

## Note 14 – Arrangements with Off-Balance Sheet Risk

We enter into arrangements with off-balance sheet risk in the normal course of business, primarily in the form of guarantees.

The following table provides quantitative data regarding our third party guarantees. The maximum potential payments represent a “worst-case scenario” and do not necessarily reflect amounts that we expect to pay. Estimated proceeds from collateral and recourse represent the anticipated values of assets we could liquidate or receive from other parties to offset our payments under guarantees. The carrying amount of liabilities represents the amount included in Accrued liabilities.

	Maximum Potential Payments		Estimated Proceeds from Collateral/ Recourse		Carrying Amount of Liabilities	
December 31,	2021	2020	2021	2020	2021	2020
Contingent repurchase commitments	\$548	\$1,452	\$548	\$1,452		
Credit guarantees	90	90	28	28	\$24	\$24

**Contingent Repurchase Commitments** The commercial aircraft repurchase price specified in contingent repurchase commitments is generally lower than the expected fair value at the specified repurchase date. Estimated proceeds from collateral/recourse in the table above represent the lower of the contracted repurchase price or the expected fair value of each aircraft at the specified repurchase date.

**Credit Guarantees** We have issued credit guarantees where we are obligated to make payments to a guaranteed party in the event that the original lessee or debtor does not make payments or perform certain specified services. Generally, these guarantees have been extended on behalf of guaranteed parties with less than investment-grade credit and are collateralized by certain assets. Current outstanding credit guarantees expire through 2036.

**Industrial Revenue Bonds** Industrial Revenue Bonds (IRB) issued by St. Louis County were used to finance the purchase and/or construction of real and personal property at our St. Louis site. Tax benefits associated with IRBs include a twelve-year property tax abatement and sales tax exemption from St. Louis County. We record these properties on our Consolidated Statements of Financial Position. We have also purchased the IRBs and therefore are the bondholders as well as the borrower/lessee of the properties purchased with the IRB proceeds. The liabilities and IRB assets are equal and are reported net in the Consolidated Statements of Financial Position. As of December 31, 2021 and 2020, the assets and liabilities associated with the IRBs were \$271.

**Other Indemnifications** In conjunction with our sales of Electron Dynamic Devices, Inc. and Rocketdyne Propulsion and Power businesses and our BCA facilities in Wichita, Kansas and Tulsa and McAlester, Oklahoma, we agreed to indemnify, for an indefinite period, the buyers for costs relating to pre-closing environmental conditions and certain other items. We are unable to assess the potential number of future claims that may be asserted under these indemnifications, nor the amounts thereof (if any). As a result, we cannot estimate the maximum potential amount of future payments under these indemnities and therefore, no liability has been recorded. To the extent that claims have been made under these indemnities and/or are probable and reasonably estimable, liabilities associated with these indemnities are included in the environmental liability disclosure in Note 13.



## Note 15 – Debt

In the first quarter of 2021, we issued \$9,825 of fixed rate senior notes consisting of \$1,325 due February 4, 2023 that bear an annual interest rate of 1.167%, \$3,000 due February 4, 2024 that bear an annual interest rate of 1.433%, and \$5,500 due February 4, 2026 that bear an annual interest rate of 2.196%. The notes are unsecured senior obligations and rank equally in right of payment with our existing and future unsecured and unsubordinated indebtedness. The net proceeds of the issuance totaled \$9,780, after deducting underwriting discounts, commissions and offering expenses. We used the net proceeds of these note issuances to repay \$9,825 outstanding under our two-year delayed draw term loan credit agreement in the first quarter of 2021, and we repaid the remaining \$4,000 in the fourth quarter of 2021.

Interest incurred, including amounts capitalized, was \$2,790, \$2,280 and \$867 for the years ended December 31, 2021, 2020 and 2019, respectively. Interest expense recorded by BCC is reflected as Boeing Capital interest expense on our Consolidated Statements of Operations. Total Company interest payments were \$2,583, \$1,925 and \$973 for the years ended December 31, 2021, 2020 and 2019, respectively.

In the first quarter of 2021, we entered into a \$5,280 two-year revolving credit agreement. As of December 31, 2021, we had \$14,740 currently available under credit line agreements, of which \$3,060 is a 364-day revolving credit facility expiring in October 2022, \$3,200 expires in October 2022, \$5,280 expires in March 2023 and \$3,200 expires in October 2024. The 364-day credit facility has a one-year term out option which allows us to extend the maturity of any borrowings one year beyond the aforementioned expiration date. We continue to be in full compliance with all covenants contained in our debt or credit facility agreements.

Short-term debt and current portion of long-term debt at December 31 consisted of the following:

	2021	2020
Unsecured debt	\$1,155	\$1,448
Finance lease obligations	61	65
Other notes	80	180
Total	\$1,296	\$1,693

Debt at December 31 consisted of the following:

	2021	2020
<b>Unsecured debt</b>		
Variable rate: Eurodollar plus 0.75% - 1.25% due 2022		\$13,819
1.17% - 2.50% due through 2026	<b>\$12,404</b>	3,656
2.60% - 3.20% due through 2030	<b>7,001</b>	6,989
3.25% - 3.90% due through 2059	<b>9,570</b>	9,555
3.95% - 5.15% due through 2059	<b>13,993</b>	13,917
5.71% - 6.63% due through 2060	<b>13,008</b>	13,005
6.88% - 8.75% due through 2043	<b>1,853</b>	2,252
<b>Other debt and notes</b>		
Finance lease obligations due through 2044	<b>180</b>	203
Other notes	<b>93</b>	187
<b>Total debt</b>	<b>\$58,102</b>	<b>\$63,583</b>

Total debt at December 31 is attributable to:

	2021	2020
BCC	<b>\$1,525</b>	\$1,640
Other Boeing	<b>56,577</b>	61,943
<b>Total debt</b>	<b>\$58,102</b>	<b>\$63,583</b>

Scheduled principal payments for debt and minimum finance lease obligations for the next five years are as follows:

	2022	2023	2024	2025	2026
Debt	\$1,236	\$5,101	\$5,066	\$4,302	\$7,952
Minimum finance lease obligations	\$64	\$43	\$25	\$14	\$6

## Note 16 – Postretirement Plans

Many of our employees have earned benefits under defined benefit pension plans. Nonunion and the majority of union employees that had participated in defined benefit pension plans transitioned to a company-funded defined contribution retirement savings plan in 2016. Additional union employees transitioned to company-funded defined contribution retirement savings plans effective January 1, 2019.

We fund our major pension plans through trusts. Pension assets are placed in trust solely for the benefit of the plans' participants and are structured to maintain liquidity that is sufficient to pay benefit obligations as well as to keep pace over the long-term with the growth of obligations for future benefit payments.

We also have other postretirement benefits (OPB) other than pensions which consist principally of health care coverage for eligible retirees and qualifying dependents, and to a lesser extent, life insurance to certain groups of retirees. Retiree health care is provided principally until age 65 for approximately three-fourths of those participants who are eligible for health care coverage. Certain employee groups, including employees covered by most United Auto Workers bargaining agreements, are provided lifetime health care coverage. The funded status of the plans is measured as the

difference between the plan assets at fair value and the projected benefit obligation (PBO). We have recognized the aggregate of all overfunded plans in Other assets and the aggregate of all underfunded plans in either Accrued retiree health care or Accrued pension plan liability, net. The portion of the amount by which the actuarial present value of benefits included in the PBO exceeds the fair value of plan assets, payable in the next 12 months, is reflected in Accrued liabilities.

The components of net periodic benefit (income)/cost were as follows:

	Pension			Other Postretirement Benefits		
Years ended December 31,	2021	2020	2019	2021	2020	2019
Service cost	\$3	\$3	\$2	\$87	\$89	\$77
Interest cost	1,988	2,455	2,925	97	130	196
Expected return on plan assets	(3,848)	(3,756)	(3,863)	(7)	(9)	(8)
Amortization of prior service credits	(80)	(80)	(79)	(35)	(38)	(35)
Recognized net actuarial loss/(gain)	1,219	1,032	643	(56)	(63)	(46)
Settlement/curtailment loss/(gain)	193	9			(4)	
<b>Net periodic benefit (income)/cost</b>	<b>(\$525)</b>	<b>(\$337)</b>	<b>(\$372)</b>	<b>\$86</b>	<b>\$105</b>	<b>\$184</b>
<b>Net periodic benefit cost included in Loss from operations</b>	<b>\$3</b>	<b>\$3</b>	<b>\$313</b>	<b>\$90</b>	<b>\$91</b>	<b>\$88</b>
Net periodic benefit (income)/cost included in Other income, net	(528)	(340)	(374)	(1)	16	107
<b>Net periodic benefit (income)/cost included in Loss before income taxes</b>	<b>(\$525)</b>	<b>(\$337)</b>	<b>(\$61)</b>	<b>\$89</b>	<b>\$107</b>	<b>\$195</b>

In 2021, we recorded a \$193 settlement charge in Other income, net and remeasured assets and benefit obligations related to three of the Company's pension plans.

The following tables show changes in the benefit obligation, plan assets and funded status of both pensions and OPB for the years ended December 31, 2021 and 2020. Benefit obligation balances presented below reflect the PBO for our pension plans and accumulated postretirement benefit obligations (APBO) for our OPB plans.

	Pension		Other Postretirement Benefits	
	2021	2020	2021	2020
<b>Change in benefit obligation</b>				
Beginning balance	<b>\$82,415</b>	\$77,645	<b>\$4,693</b>	\$5,080
Service cost	<b>3</b>	3	<b>87</b>	89
Interest cost	<b>1,988</b>	2,455	<b>97</b>	130
Amendments				(29)
Actuarial (gain)/loss	<b>(3,249)</b>	7,759	<b>(401)</b>	(218)
Settlement/other	<b>(870)</b>	(68)		55
Gross benefits paid	<b>(4,653)</b>	(5,386)	<b>(411)</b>	(450)
Subsidies			<b>26</b>	36
Exchange rate adjustment	<b>1</b>	7	<b>1</b>	
Ending balance	<b>\$75,635</b>	\$82,415	<b>\$4,092</b>	\$4,693
<b>Change in plan assets</b>				
Beginning balance at fair value	<b>\$68,696</b>	\$61,711	<b>\$160</b>	\$149
Actual return on plan assets	<b>4,477</b>	9,275	<b>21</b>	21
Company contribution	<b>11</b>	3,013		
Plan participants' contributions			<b>6</b>	6
Settlement payments	<b>(870)</b>	(68)		
Benefits paid	<b>(4,502)</b>	(5,241)	<b>(15)</b>	(16)
Exchange rate adjustment	<b>1</b>	6		
Ending balance at fair value	<b>\$67,813</b>	\$68,696	<b>\$172</b>	\$160
<b>Amounts recognized in statement of financial position at December 31 consist of:</b>				
Other assets	<b>\$1,426</b>	\$837		
Accrued liabilities	<b>(144)</b>	(148)	<b>(\$392)</b>	(\$396)
Accrued retiree health care			<b>(3,528)</b>	(4,137)
Accrued pension plan liability, net	<b>(9,104)</b>	(14,408)		
Net amount recognized	<b>(\$7,822)</b>	(\$13,719)	<b>(\$3,920)</b>	(\$4,533)

Amounts recognized in Accumulated other comprehensive loss at December 31 were as follows:

	Pension		Other Postretirement Benefits	
	2021	2020	2021	2020
Net actuarial loss/(gain)	<b>\$19,031</b>	\$24,324	<b>(\$1,092)</b>	(\$735)
Prior service credits	<b>(1,306)</b>	(1,387)	<b>(76)</b>	(110)
Total recognized in Accumulated other comprehensive loss	<b>\$17,725</b>	\$22,937	<b>(\$1,168)</b>	(\$845)

The accumulated benefit obligation (ABO) for all pension plans was \$74,199 and \$80,694 at December 31, 2021 and 2020. Key information for our plans with ABO and PBO in excess of plan assets as of December 31 was as follows:

	2021	2020
Accumulated benefit obligation	<b>\$66,406</b>	\$74,337
Fair value of plan assets	<b>58,593</b>	61,502
	2021	2020
Projected benefit obligation	<b>\$67,841</b>	\$76,057
Fair value of plan assets	<b>58,593</b>	61,502

### Assumptions

The following assumptions, which are the weighted average for all plans, are used to calculate the benefit obligation at December 31 of each year and the net periodic benefit cost for the subsequent year.

December 31,	2021	2020	2019
Discount rate:			
Pension	<b>2.80 %</b>	2.50 %	3.30 %
Other postretirement benefits	<b>2.50 %</b>	2.00 %	3.00 %
Expected return on plan assets	<b>6.30 %</b>	6.50 %	6.80 %
Rate of compensation increase	<b>4.30 %</b>	4.30 %	4.30 %
Interest crediting rates for cash balance plans	<b>5.00 %</b>	5.00 %	5.15 %

The discount rate for each plan is determined based on the plans' expected future benefit payments using a yield curve developed from high quality bonds that are rated as Aa or better by at least half of the four rating agencies utilized as of the measurement date. The yield curve is fitted to yields developed from bonds at various maturity points. Bonds with the ten percent highest and the ten percent lowest yields are omitted. The present value of each plan's benefits is calculated by applying the discount rates to projected benefit cash flows.

The pension fund's expected return on plan assets assumption is derived from a review of actual historical returns achieved by the pension trust and anticipated future long-term performance of individual asset classes. While consideration is given to historical returns, the assumption represents a long-term, prospective return. The expected return on plan assets component of the net periodic benefit cost for the upcoming plan year is determined based on the expected return on plan assets assumption and the market-related value of plan assets (MRVA). Since our adoption of the accounting standard for pensions in 1987, we have determined the MRVA based on a five-year moving average of plan assets. As of December 31, 2021, the MRVA was approximately \$4,773 less than the fair market value of assets.

Assumed health care cost trend rates were as follows:

December 31,	2021	2020	2019
Health care cost trend rate assumed next year	<b>4.50 %</b>	4.50 %	5.00 %
Ultimate trend rate	<b>4.50 %</b>	4.50 %	4.50 %
Year that trend reached ultimate rate	<b>2021</b>	2021	2021

## Plan Assets

**Investment Strategy** The overall objective of our pension assets is to earn a rate of return over time to satisfy the benefit obligations of the pension plans and to maintain sufficient liquidity to pay benefits and address other cash requirements of the pension fund. Specific investment objectives for our long-term investment strategy include reducing the volatility of pension assets relative to pension liabilities, achieving a competitive total investment return, achieving diversification between and within asset classes and managing other risks. Investment objectives for each asset class are determined based on specific risks and investment opportunities identified.

We periodically update our long-term, strategic asset allocations. We use various analytics to determine the optimal asset mix and consider plan liability characteristics, liquidity characteristics, funding requirements, expected rates of return and the distribution of returns. A key element of our strategy is to de-risk the plan as the funded status of the plan increases. During 2021, as the funded status of the plans increased, certain assets were reallocated to fixed income. The changes in the asset allocation are reflected in the asset allocation table below. We identify investment benchmarks to evaluate performance for the asset classes in the strategic asset allocation that are market-based and investable where possible. Actual allocations to each asset class vary from target allocations due to periodic investment strategy changes, market value fluctuations, the length of time it takes to fully implement investment allocation positions, and the timing of benefit payments and contributions. Short-term investments and exchange-traded derivatives are used to rebalance the actual asset allocation to the target asset allocation. The asset allocation is monitored and rebalanced frequently. The actual and target allocations by asset class for the pension assets at December 31 were as follows:

Asset Class	Actual Allocations		Target Allocations	
	2021	2020	2021	2020
Fixed income	61 %	49 %	63 %	49 %
Global equity	16	30	20	29
Private equity	8	6	4	5
Real estate and real assets	8	7	7	9
Hedge funds	7	8	6	8
Total	100 %	100 %	100 %	100 %

Fixed income securities are invested primarily in a diversified portfolio of long duration instruments as well as Emerging Market, Structured, High Yield and Private Debt. Global equity securities are invested in a diversified portfolio of U.S. and non-U.S. companies, across various industries and market capitalizations.

Private equity investment vehicles are primarily limited partnerships (LPs) that mainly invest in U.S. and non-U.S. leveraged buyout, venture capital, growth and special situation strategies. Real estate and real assets include global private investments that may be held through investments in a limited partnership (LP) or other fund structures and publicly traded investments (such as Real Estate Investment Trusts (REITs) in the case of real estate). Real estate includes, but is not limited to, investments in office, retail, apartment and industrial properties. Real assets include, but are not limited to, investments in natural resources (such as energy, farmland and timber), commodities and infrastructure.

Hedge fund investments seek to capitalize on inefficiencies identified across and within different asset classes or markets. Hedge fund strategy types include, but are not limited to, directional, event driven, relative value and long-short.

Investment managers are retained for explicit investment roles specified by contractual investment guidelines. Certain investment managers are authorized to use derivatives, such as equity or bond futures, swaps, options and currency futures or forwards. Derivatives are used to achieve the desired market exposure of a security or an index, transfer value-added performance between asset classes, achieve the desired currency exposure, adjust portfolio duration or rebalance the total portfolio to the target asset allocation.

As a percentage of total pension assets, derivative net notional amounts were 33.4% and 8.3% for fixed income, including to-be-announced mortgage-backed securities and treasury forwards, and (5.4%) and 0.4% for global equity and commodities at December 31, 2021 and 2020.

In November 2020, the Company contributed \$3,000 of our common stock to the pension fund. An independent fiduciary was retained to manage and liquidate the stock over time at its discretion. Plan assets included \$1,883 and \$3,298 of our common stock as of December 31, 2021 and 2020.

**Risk Management** In managing the pension assets, we review and manage risk associated with funded status risk, interest rate risk, market risk, counterparty risk, liquidity risk and operational risk. Liability matching and asset class diversification are central to our risk management approach and are integral to the overall investment strategy. Further, asset classes are constructed to achieve diversification by investment strategy, by investment manager, by industry or sector and by holding. Investment manager guidelines for publicly traded assets are specified and are monitored regularly through the custodian. Credit parameters for counterparties have been established for managers permitted to trade over-the-counter derivatives. Valuation is governed through several types of procedures, including reviews of manager valuation policies, custodian valuation processes, pricing vendor practices, pricing reconciliation and periodic, security-specific valuation testing.

**Fair Value Measurements** The following table presents our plan assets using the fair value hierarchy as of December 31, 2021 and 2020. The fair value hierarchy has three levels based on the reliability of the inputs used to determine fair value. Level 1 refers to fair values determined based on quoted prices in active markets for identical assets. Level 2 refers to fair values estimated using significant other observable inputs and Level 3 includes fair values estimated using significant unobservable inputs.



	December 31, 2021				December 31, 2020			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Fixed income securities:								
Corporate	\$20,573		\$20,520	\$53	\$20,841		\$20,801	\$40
U.S. government and agencies	11,285		11,285		5,170		5,168	2
Mortgage backed and asset backed	777		675	102	786		666	120
Municipal	1,064		1,035	29	1,176		1,104	72
Sovereign	1,135		1,126	9	1,040		1,038	2
Other	3	\$3			19	\$18	1	
Derivatives:								
Assets	62		62		6		6	
Liabilities	(48)		(48)		(17)		(17)	
Cash equivalents and other short-term investments	448		448		1,081		1,081	
Equity securities:								
U.S. common and preferred stock	4,463	4,463			5,013	5,013		
Non-U.S. common and preferred stock	3,345	3,340		5	5,577	5,575		2
Boeing company stock	1,883	1,883			3,298	3,298		
Derivatives:								
Assets	1		1		10		10	
Liabilities	(1)		(1)		(9)		(9)	
Private equity								
Real estate and real assets:								
Real estate	413	413			351	351		
Real assets	784	749	35		786	723	61	2
Derivatives:								
Assets	8		8		6		6	
Liabilities	(2)		(2)		(2)		(2)	
<b>Total</b>	<b>\$46,193</b>	<b>\$10,851</b>	<b>\$35,144</b>	<b>\$198</b>	<b>\$45,132</b>	<b>\$14,978</b>	<b>\$29,914</b>	<b>\$240</b>
Fixed income common/collective/pooled funds	\$1,712				\$2,345			
Fixed income other	747				604			
Equity common/collective/pooled funds	4,561				6,947			
Private equity	5,100				4,013			
Real estate and real assets	3,952				3,359			
Hedge funds	4,717				5,745			
Total investments measured at NAV as a practical expedient	\$20,789				\$23,013			
Cash	\$520				\$267			
Receivables	454				992			
Payables	(143)				(708)			
<b>Total</b>	<b>\$67,813</b>				<b>\$68,696</b>			

Fixed income securities are primarily valued upon a market approach, using matrix pricing and considering a security's relationship to other securities for which quoted prices in an active market may be available, or an income approach, converting future cash flows to a single present value amount.

Inputs used in developing fair value estimates include reported trades, broker quotes, benchmark yields and base spreads.

Common/collective/pooled funds are typically common or collective trusts valued at their net asset values (NAVs) that are calculated by the investment manager or sponsor of the fund and have daily or monthly liquidity. Derivatives included in the table above are over-the-counter and are primarily valued using an income approach with inputs that include benchmark yields, swap curves, cash flow analysis, rating agency data and interdealer broker rates. Exchange-traded derivative positions are reported in accordance with changes in daily variation margin which is settled daily and therefore reflected in the payables and receivables portion of the table.

Cash equivalents and other short-term investments (which are used to pay benefits) are held in a separate account which consists of a commingled fund (with daily liquidity) and separately held short-term securities and cash equivalents. All of the investments in this cash vehicle are valued daily using a market approach with inputs that include quoted market prices for similar instruments. In the event a market price is not available for instruments with an original maturity of one year or less, amortized cost is used as a proxy for fair value. Common and preferred stock equity securities are primarily valued using a market approach based on the quoted market prices of identical instruments.

Private equity and private debt NAV valuations are based on the valuation of the underlying investments, which include inputs such as cost, operating results, discounted future cash flows and market based comparable data. For those investments reported on a one-quarter lagged basis (primarily LPs) we use NAVs, adjusted for subsequent cash flows and significant events.

Real estate and real asset NAVs are based on the valuation of the underlying investments, which include inputs such as cost, discounted future cash flows, independent appraisals and market based comparable data. For those investments reported on a one-quarter lagged basis (primarily LPs), NAVs are adjusted for subsequent cash flows and significant events. Publicly traded REITs and infrastructure stocks are valued using a market approach based on quoted market prices of identical instruments. Exchange-traded commodities futures positions are reported in accordance with changes in daily variation margin which is settled daily and therefore reflected in the payables and receivables portion of the table.

Hedge fund NAVs are generally based on the valuation of the underlying investments. This is primarily done by applying a market or income valuation methodology depending on the specific type of security or instrument held.

Investments in private equity, private debt, real estate, real assets and hedge funds are primarily calculated and reported by the General Partner, fund manager or third party administrator. Additionally, some investments in fixed income and equity are made via commingled vehicles and are valued in a similar fashion. Pension assets invested in commingled and limited partnership structures rely on the NAV of these investments as the practical expedient for the valuations.

The following tables present a reconciliation of Level 3 assets held during the years ended December 31, 2021 and 2020. Transfers into and out of Level 3 are reported at the beginning-of-year values.

	January 1 2021 Balance	Net Realized and Unrealized Gains/(Losses)	Net Purchases, Issuances and Settlements	Net Transfers Into/(Out of) Level 3	December 31 2021 Balance
Fixed income securities:					
Corporate	\$40	(\$1)	\$5	\$9	\$53
U.S. government and agencies	2		(2)		
Mortgage backed and asset backed	120		(17)	(1)	102
Municipal	72		7	(50)	29
Sovereign	2	(8)	15		9
Equity securities:					
Non-U.S. common and preferred stock	2	2	(3)	4	5
Real assets	2			(2)	
<b>Total</b>	<b>\$240</b>	<b>(\$7)</b>	<b>\$5</b>	<b>(\$40)</b>	<b>\$198</b>

	January 1 2020 Balance	Net Realized and Unrealized Gains/(Losses)	Net Purchases, Issuances and Settlements	Net Transfers Into/(Out of) Level 3	December 31 2020 Balance
Fixed income securities:					
Corporate	\$5	\$1	\$18	\$16	\$40
U.S. government and agencies				2	2
Mortgage backed and asset backed	461	(1)	(93)	(247)	120
Municipal		3	2	67	72
Sovereign		(1)	2	1	2
Equity securities:					
Non-U.S. common and preferred stock	2				2
Real assets	4			(2)	2
<b>Total</b>	<b>\$472</b>	<b>\$2</b>	<b>(\$71)</b>	<b>(\$163)</b>	<b>\$240</b>

For the year ended December 31, 2021, the changes in unrealized gains/(losses) for Level 3 assets still held at December 31, 2021 were (\$1) for mortgage backed and asset backed fixed income securities and (\$8) for sovereign. For the year ended December 31, 2020, the changes in unrealized gains/(losses) for Level 3 assets still held at December 31, 2020 were \$2 for corporate, \$1 for mortgage backed and asset backed fixed income securities, \$3 for municipal bonds and (\$1) for sovereign.

**OPB Plan Assets** The majority of OPB plan assets are invested in a balanced index fund which is comprised of approximately 60% equities and 40% debt securities. The index fund is valued using a

market approach based on the quoted market price of an identical instrument (Level 1). The expected rate of return on these assets does not have a material effect on the net periodic benefit cost.

## Cash Flows

**Contributions** Required pension contributions under the Employee Retirement Income Security Act (ERISA), as well as rules governing funding of our non-US pension plans, are not expected to be significant in 2022. During the fourth quarter of 2020, we contributed \$3,000 in common stock to the pension fund. We do not expect to make discretionary contributions to our pension plans in 2022.

**Estimated Future Benefit Payments** The table below reflects the total pension benefits expected to be paid from the plans or from our assets, including both our share of the benefit cost and the participants' share of the cost, which is funded by participant contributions. OPB payments reflect our portion only.

Year(s)	2022	2023	2024	2025	2026	2027-2031
Pensions	\$4,839	\$4,723	\$4,657	\$4,578	\$4,481	\$20,713
Other postretirement benefits:						
Gross benefits paid	450	425	404	380	356	1,385
Subsidies	(29)	(29)	(29)	(27)	(27)	(124)
Net other postretirement benefits	\$421	\$396	\$375	\$353	\$329	\$1,261

## Termination Provisions

Certain of the pension plans provide that, in the event there is a change in control of the Company which is not approved by the Board of Directors and the plans are terminated within five years thereafter, the assets in the plan first will be used to provide the level of retirement benefits required by ERISA, and then any surplus will be used to fund a trust to continue present and future payments under the postretirement medical and life insurance benefits in our group insurance benefit programs.

Should we terminate certain pension plans under conditions in which the plan's assets exceed that plan's obligations, the U.S. government will be entitled to a fair allocation of any of the plan's assets based on plan contributions that were reimbursed under U.S. government contracts.

## Defined Contribution Plans

We provide certain defined contribution plans to all eligible employees. The principal plans are the Company-sponsored 401(k) plans. The expense for these defined contribution plans was \$1,268, \$1,351 and \$1,533 in 2021, 2020 and 2019, respectively.

## Note 17 – Share-Based Compensation and Other Compensation Arrangements

### Share-Based Compensation

Our 2003 Incentive Stock Plan, as amended and restated, permits awards of incentive and non-qualified stock options, stock appreciation rights, restricted stock or units, performance shares, performance restricted stock or units, performance units and other stock and cash-based awards to our employees, officers, directors, consultants, and independent contractors. The aggregate number of shares of our stock authorized for issuance under the plan is 87,000,000.

Shares issued as a result of stock option exercises or conversion of stock unit awards will be funded out of treasury shares, except to the extent there are insufficient treasury shares, in which case new shares will be issued. We believe we currently have adequate treasury shares to satisfy these issuances during 2022.

Share-based plans expense is primarily included in Total costs and expenses and General and administrative expense, as well as a portion allocated to production as inventoried costs. The share-based plans expense and related income tax benefit were as follows:

Years ended December 31,	2021	2020	2019
Recognized in Loss from operations	\$667	\$243	\$217
Recognized in Inventories	\$173		
Income tax benefit	\$148	\$53	\$47

## Stock Options

On February 17, 2021, we granted 342,986 premium-priced stock options to our executive officers as part of our long-term incentive program. These stock options have an exercise price equal to 120% of the fair market value of our stock on the date of grant. The stock options are scheduled to vest and become exercisable three years after the grant date and expire ten years after the grant date. If an executive terminates employment because of retirement, layoff, disability or death, the executive (or beneficiary) may receive some or all of their stock options depending on certain age and service conditions. The fair value of the stock options granted was \$74.63 per unit and was estimated using a Monte-Carlo simulation model using the following assumptions: expected life 6.6 years, expected volatility 37.8%, risk free interest rate 1.3% and no expected dividend yield. During 2021, we also granted 148,322 stock options to certain executives to encourage retention or to award various achievements, of which 40,322 had an exercise price equal to 120% of the fair market value of our stock on the date of grant, and the remaining 108,000 had an exercise price equal to the fair market value on the date of grant. These stock options are scheduled to vest and become exercisable three years after the grant date and expire ten years after the grant date. The grant date fair market value of these awards was not significant.

Options granted through January 2014 had an exercise price equal to the fair market value of our stock on the date of grant and expire 10 years after the date of grant. These stock options vested over a period of three years and were fully vested as of December 31, 2017.

Stock option activity for the year ended December 31, 2021 is as follows:

	Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Number of shares under option:				
Outstanding at beginning of year	1,860,520	\$75.71		
Granted	491,308	250.80		
Exercised	(570,862)	73.93		
Expired	(26,663)	75.13		
Forfeited	(44,924)	258.83		
Outstanding at end of year	1,709,379	\$121.83	3.1	\$158
Exercisable at end of year	1,262,995	\$76.53	0.8	\$158

The total intrinsic value of options exercised during the years ended December 31, 2021, 2020 and 2019 was \$84, \$90 and \$279, with a related tax benefit of \$19, \$32 and \$61, respectively. At December 31, 2021, there was \$19 of total unrecognized compensation cost related to options which is expected

to be recognized over a weighted average period of 2.5 years. No options vested during the years ended December 31, 2021, 2020 and 2019.

### Restricted Stock Units

In February 2021, 2020 and 2019, we granted to our executives 980,077, 325,108 and 233,582 restricted stock units (RSUs) as part of our long-term incentive program with grant date fair values of \$215.70, \$319.04 and \$428.22 per unit, respectively. During 2021, we also granted 47,430 RSUs as part of this long-term incentive program. The RSUs granted under this program will generally vest and settle in common stock (on a one-for-one basis) on the third anniversary of the grant date. If an executive terminates employment because of retirement, layoff, disability or death, the employee (or beneficiary) may receive a proration of stock units based on active employment during the three-year service period or all of their stock units depending on certain age and service conditions. In all other cases, the RSUs will not vest and all rights to the stock units will terminate. These RSUs are labeled executive long-term incentive program in the table below.

In December 2020, we granted to our employees (excluding executives and certain union-represented employees), a one-time grant of 5,163,425 RSUs with a grant date fair value of \$233.00 per unit. The RSUs granted under this program will vest and settle in common stock (on a one-for-one basis) on the third anniversary of the grant date. If an employee terminates employment because of retirement, layoff, disability or death, the employee (or beneficiary) may receive a proration of stock units based on active employment during the three-year service period. In all other cases, the RSUs will not vest and all rights to the stock units will terminate. These RSUs are labeled employee long-term incentive program in the table below.

In addition to RSUs awarded under our long-term incentive programs, we grant RSUs to certain executives and employees to encourage retention or to reward various achievements. These RSUs are labeled other RSUs in the table below.

The fair values of all RSUs are estimated using the average of the high and low stock prices on the date of grant.

RSU activity for the year ended December 31, 2021 was as follows:

	Executive Long-Term Incentive Program	Employee Long-Term Incentive Program	Other
Number of units:			
Outstanding at beginning of year	1,423,601	5,163,425	749,319
Granted	1,027,507		216,782
Forfeited	(205,400)	(378,881)	(33,563)
Distributed	(196,013)	(3,820)	(233,672)
Outstanding at end of year	2,049,695	4,780,724	698,866
Undistributed vested units	344,125	985,427	16,212
Unrecognized compensation cost	\$258	\$573	\$67
Weighted average remaining amortization period (years)	1.9	1.9	1.9

## Performance-Based Restricted Stock Units

Performance-Based Restricted Stock Units (PBRsUs) are stock units that pay out based on the Company's total shareholder return (TSR) as compared to a group of peer companies over a three-year period. The award payout can range from 0% to 200% of the initial PBRsU grant. The PBRsUs granted under this program will vest at the payout amount and settle in common stock (on a one-for-one basis) on the third anniversary of the grant date. If an executive terminates employment because of retirement, layoff, disability or death, the employee (or beneficiary) remains eligible under the award and, if the award is earned, will receive a proration of stock units based on active employment during the three-year service period. In all other cases, the PBRsUs will not vest and all rights to the stock units will terminate.

In February 2020 and 2019, we granted to our executives 290,202 and 214,651 PBRsUs as part of our long-term incentive program. Compensation expense for the award is recognized over the three-year performance period based upon the grant date fair value. The grant date fair values were estimated using a Monte-Carlo simulation model with the assumptions presented below. The model includes no expected dividend yield as the units earn dividend equivalents.

Grant Year	Grant Date	Performance Period	Expected Volatility	Risk Free Interest Rate	Grant Date Fair Value
2020	2/24/2020	3 years	27.04 %	1.21 %	\$357.38
2019	2/25/2019	3 years	23.88 %	2.46 %	466.04

PBRsU activity for the year ended December 31, 2021 was as follows:

	Executive Long-Term Incentive Program
Number of units:	
Outstanding at beginning of year	621,559
Performance based adjustment <sup>(1)</sup>	(203,331)
Forfeited	(34,827)
Outstanding at end of year	383,401
Unrecognized compensation cost	\$36
Weighted average remaining amortization period (years)	1.1

<sup>(1)</sup> Represents net number of units adjusted at vesting based on TSR for units granted in 2018.

## Performance Awards

During 2020 and 2019, we granted Performance Awards to our executives, which are cash units that pay out based on the achievement of long-term financial goals at the end of a three-year period. Each unit has an initial value of \$100 dollars. The amount payable at the end of the three-year performance period may be anywhere from \$0 to \$200 dollars per unit for the 2019 Performance Awards and \$0 to \$150 dollars for 2020 Performance Awards, depending on the Company's performance against plan for a three-year period. The Compensation Committee has the discretion to pay these awards in cash, stock or a combination of both after the three-year performance period. Compensation expense, based on the estimated performance payout, is recognized ratably over the performance period.

The minimum payout amount is \$0, and the maximum amount we could be required to pay out for the 2020 and 2019 Performance Awards is \$253 and \$323.



## Deferred Compensation

The Company has deferred compensation plans which permit certain employees and executives to defer a portion of their salary, bonus, certain other incentive awards and retirement contributions. Participants can diversify these amounts among 23 investment funds including a Boeing stock unit account.

Total expense related to deferred compensation was \$126, \$93 and \$174 in 2021, 2020 and 2019, respectively. As of December 31, 2021 and 2020, the deferred compensation liability which is being marked to market was \$1,703 and \$1,718.

## Note 18 – Shareholders' Equity

On December 17, 2018, the Board approved a repurchase plan for up to \$20,000 of common stock. In March 2020, the Board of Directors terminated its prior authorization to repurchase shares under this plan.

As of December 31, 2021 and 2020, there were 1,200,000,000 shares of common stock and 20,000,000 shares of preferred stock authorized. No preferred stock has been issued.

## Changes in Share Balances

The following table shows changes in each class of shares:

	Common Stock	Treasury Stock
Balance at January 1, 2019	1,012,261,159	444,619,970
Issued		(2,797,002)
Acquired		7,529,437
Balance at December 31, 2019	1,012,261,159	449,352,405
Issued		(19,986,868)
Acquired		575,484
Balance at December 31, 2020	1,012,261,159	429,941,021
Issued		(6,904,556)
Acquired		307,242
Balance at December 31, 2021	<b>1,012,261,159</b>	<b>423,343,707</b>

## Accumulated Other Comprehensive Loss

Changes in Accumulated other comprehensive loss (AOCI) by component for the years ended December 31, 2021, 2020 and 2019 were as follows:

	Currency Translation Adjustments	Unrealized Gains and Losses on Certain Investments	Unrealized Gains and Losses on Derivative Instruments	Defined Benefit Pension Plans & Other Postretirement Benefits	Total <sup>(1)</sup>
Balance at January 1, 2019	(\$101)		(\$62)	(\$14,920)	(\$15,083)
Other comprehensive (loss)/income before reclassifications	(27)	\$1	(48)	(1,397) <sup>(2)</sup>	(1,471)
Amounts reclassified from AOCI			26	375 <sup>(3)</sup>	401
Net current period Other comprehensive (loss)/income	(27)	1	(22)	(1,022)	(1,070)
Balance at December 31, 2019	(\$128)	\$1	(\$84)	(\$15,942)	(\$16,153)
Other comprehensive income/(loss) before reclassifications	98		14	(1,929) <sup>(2)</sup>	(1,817)
Amounts reclassified from AOCI			27	810 <sup>(3)</sup>	837
Net current period Other comprehensive income/(loss)	98		41	(1,119)	(980)
Balance at December 31, 2020	(\$30)	\$1	(\$43)	(\$17,061)	(\$17,133)
Other comprehensive (loss)/income before reclassifications	(75)		55	4,268 <sup>(2)</sup>	4,248
Amounts reclassified from AOCI			(6)	1,232 <sup>(3)</sup>	1,226
Net current period Other comprehensive (loss)/income	(75)		49	5,500	5,474
Balance at December 31, 2021	(\$105)	\$1	\$6	(\$11,561)	(\$11,659)

<sup>(1)</sup> Net of tax.

<sup>(2)</sup> Primarily relates to remeasurement of assets and benefit obligations related to the Company's pension and other postretirement benefit plans resulting in an actuarial gain/(loss) of \$4,262, (\$1,956) and (\$1,413) (net of tax of (\$32), \$111 and \$405) for the years ended December 31, 2021, 2020 and 2019. See Note 16.

<sup>(3)</sup> Primarily relates to amortization of actuarial losses for the years ended December 31, 2021, 2020 and 2019 totaling \$1,155, \$917 and \$464 (net of tax of (\$8), (\$52) and (\$133)), respectively. These are included in the net periodic pension cost. See Note 16.

## Note 19 – Derivative Financial Instruments

### Cash Flow Hedges

Our cash flow hedges include foreign currency forward contracts, commodity swaps and commodity purchase contracts. We use foreign currency forward contracts to manage currency risk associated with certain transactions, specifically forecasted sales and purchases made in foreign currencies. Our foreign currency contracts hedge forecasted transactions through 2031. We use commodity derivatives, such as fixed-price purchase commitments and swaps to hedge against potentially unfavorable price changes for commodities used in production. Our commodity contracts hedge forecasted transactions through 2029.

### Derivative Instruments Not Receiving Hedge Accounting Treatment

We have entered into agreements to purchase and sell aluminum to address long-term strategic sourcing objectives and non-U.S. business requirements. These agreements are derivative instruments

for accounting purposes. The quantities of aluminum in these agreements offset and are priced at prevailing market prices. We also hold certain foreign currency forward contracts and commodity swaps which do not qualify for hedge accounting treatment.

### Notional Amounts and Fair Values

The notional amounts and fair values of derivative instruments in the Consolidated Statements of Financial Position as of December 31 were as follows:

	Notional amounts <sup>(1)</sup>		Other assets		Accrued liabilities	
	2021	2020	2021	2020	2021	2020
Derivatives designated as hedging instruments:						
Foreign exchange contracts	\$2,630	\$2,594	\$30	\$81	(\$52)	(\$24)
Commodity contracts	500	404	88	4	(18)	(43)
Derivatives not receiving hedge accounting treatment:						
Foreign exchange contracts	361	769	2	22	(3)	(16)
Commodity contracts	760	904	8		(7)	(17)
Total derivatives	\$4,251	\$4,671	128	107	(80)	(100)
Netting arrangements			(30)	(31)	30	31
Net recorded balance			\$98	\$76	(\$50)	(\$69)

<sup>(1)</sup> Notional amounts represent the gross contract/notional amount of the derivatives outstanding.

Gains/(losses) associated with our hedging transactions and forward points recognized in Other comprehensive income are presented in the following table:

Years ended December 31,	2021	2020
Recognized in Other comprehensive income, net of taxes:		
Foreign exchange contracts	(\$47)	\$44
Commodity contracts	102	(30)

Gains/(losses) associated with our hedging transactions and forward points reclassified from AOCI to earnings are presented in the following table:

Years ended December 31,	2021	2020
Foreign exchange contracts		
Revenues		(\$3)
Costs and expenses	\$13	(14)
General and administrative	8	(6)
Commodity contracts		
Costs and expenses	(\$18)	(\$10)
General and administrative expense	5	(1)

Gains/(losses) related to undesignated derivatives on foreign exchange and commodity cash flow hedging transactions recognized in Other income, net were insignificant for the years ended December 31, 2021 and December 31, 2020.

Based on our portfolio of cash flow hedges, we expect to reclassify gains of \$22 (pre-tax) out of Accumulated other comprehensive loss into earnings during the next 12 months.

We have derivative instruments with credit-risk-related contingent features. For foreign exchange contracts with original maturities of at least five years, our derivative counterparties could require settlement if we default on our five-year credit facility. For certain commodity contracts, our counterparties could require collateral posted in an amount determined by our credit ratings. The fair value of foreign exchange and commodity contracts that have credit-risk-related contingent features that are in a net liability position at December 31, 2021 was \$7. At December 31, 2021, there was no collateral posted related to our derivatives.

## Note 20 – Fair Value Measurements

The fair value hierarchy has three levels based on the reliability of the inputs used to determine fair value. Level 1 refers to fair values determined based on quoted prices in active markets for identical assets. Level 2 refers to fair values estimated using significant other observable inputs, and Level 3 includes fair values estimated using significant unobservable inputs. The following table presents our assets and liabilities that are measured at fair value on a recurring basis and are categorized using the fair value hierarchy.

	December 31, 2021			December 31, 2020		
	Total	Level 1	Level 2	Total	Level 1	Level 2
<b>Assets</b>						
Money market funds	\$1,370	\$1,370		\$2,230	\$2,230	
Available-for-sale debt investments:						
Commercial paper	225		\$225	149		\$149
Corporate notes	262		262	333		333
U.S. government agencies	1		1	114		114
Other equity investments	20	20		54	54	
Derivatives	98		98	76		76
<b>Total assets</b>	<b>\$1,976</b>	<b>\$1,390</b>	<b>\$586</b>	<b>\$2,956</b>	<b>\$2,284</b>	<b>\$672</b>
<b>Liabilities</b>						
Derivatives	(\$50)		(\$50)	(\$69)		(\$69)
<b>Total liabilities</b>	<b>(\$50)</b>		<b>(\$50)</b>	<b>(\$69)</b>		<b>(\$69)</b>

Money market funds, available-for-sale debt investments and equity securities are valued using a market approach based on the quoted market prices or broker/dealer quotes of identical or comparable instruments.

Derivatives include foreign currency and commodity contracts. Our foreign currency forward contracts are valued using an income approach based on the present value of the forward rate less the contract rate multiplied by the notional amount. Commodity derivatives are valued using an income approach based on the present value of the commodity index prices less the contract rate multiplied by the notional amount.

Certain assets have been measured at fair value on a nonrecurring basis using significant unobservable inputs (Level 3). The following table presents the nonrecurring losses recognized for the years ended December 31 due to long-lived asset impairment, and the fair value and asset classification of the related assets as of the impairment date:

	2021		2020	
	Fair Value	Total Losses	Fair Value	Total Losses
Investments		(\$8)	\$22	(\$81)
Customer financing assets	\$110	(31)	105	(24)
Other assets and Acquired intangible assets	1	(9)	298	(221)
Property, plant and equipment	9	(50)	79	(84)
Total	\$120	(\$98)	\$504	(\$410)

Investments, Property, plant and equipment, Other assets and Acquired intangible assets were primarily valued using an income approach based on the discounted cash flows associated with the underlying assets. The fair value of the impaired customer financing assets includes operating lease equipment and investments in sales type-leases/finance leases and is derived by calculating a median collateral value from a consistent group of third party aircraft value publications. The values provided by the third party aircraft publications are derived from their knowledge of market trades and other market factors. Management reviews the publications quarterly to assess the continued appropriateness and consistency with market trends. Under certain circumstances, we adjust values based on the attributes and condition of the specific aircraft or equipment, usually when the features or use of the aircraft vary significantly from the more generic aircraft attributes covered by third party publications, or on the expected net sales price for the aircraft.

For Level 3 assets that were measured at fair value on a nonrecurring basis during the year ended December 31, 2021, the following table presents the fair value of those assets as of the measurement date, valuation techniques and related unobservable inputs of those assets.

	Fair Value	Valuation Technique(s)	Unobservable Input	Range Median or Average
Customer financing assets	\$110	Market approach	Aircraft value publications	\$88 - \$125 <sup>(1)</sup>
			Aircraft condition adjustments	Median \$119
				(\$12) - \$3 <sup>(2)</sup>
				Net (\$9)

<sup>(1)</sup> The range represents the sum of the highest and lowest values for all aircraft subject to fair value measurement, according to the third party aircraft valuation publications that we use in our valuation process.

<sup>(2)</sup> The negative amount represents the sum, for all aircraft subject to fair value measurement, of all downward adjustments based on consideration of individual aircraft attributes and condition. The positive amount represents the sum of all such upward adjustments.

## Fair Value Disclosures

The fair values and related carrying values of financial instruments that are not required to be remeasured at fair value on the Consolidated Statements of Financial Position at December 31 were as follows:

December 31, 2021					
	Carrying Amount	Total Fair Value	Level 1	Level 2	Level 3
<b>Assets</b>					
Notes receivable, net	\$412	\$485		\$485	
<b>Liabilities</b>					
Debt, excluding finance lease obligations	(57,921)	(65,724)		(65,724)	
December 31, 2020					
	Carrying Amount	Total Fair Value	Level 1	Level 2	Level 3
<b>Assets</b>					
Notes receivable, net	\$420	\$488		\$488	
<b>Liabilities</b>					
Debt, excluding finance lease obligations	(63,380)	(72,357)		(72,342)	(\$15)

The fair values of notes receivable are estimated with discounted cash flow analysis using interest rates currently offered on loans with similar terms to borrowers of similar credit quality. The fair value of our debt that is traded in the secondary market is classified as Level 2 and is based on current market yields. For our debt that is not traded in the secondary market, the fair value is classified as Level 2 and is based on our indicative borrowing cost derived from dealer quotes or discounted cash flows. The fair values of our debt classified as Level 3 are based on discounted cash flow models using the implied yield from similar securities. With regard to other financial instruments with off-balance sheet risk, it is not practicable to estimate the fair value of our indemnifications and financing commitments because the amount and timing of those arrangements are uncertain. Items not included in the above disclosures include cash, restricted cash, time deposits and other deposits, commercial paper, money market funds, Accounts receivable, Unbilled receivables, Other current assets, Accounts payable and long-term payables. The carrying values of those items, as reflected in the Consolidated Statements of Financial Position, approximate their fair value at December 31, 2021 and 2020. The fair value of assets and liabilities whose carrying value approximates fair value is determined using Level 2 inputs, with the exception of cash (Level 1).

## Note 21 – Legal Proceedings

Various legal proceedings, claims and investigations related to products, contracts, employment and other matters are pending against us.

In addition, we are subject to various U.S. government inquiries and investigations from which civil, criminal or administrative proceedings could result or have resulted in the past. Such proceedings involve or could involve claims by the government for fines, penalties, compensatory and treble damages, restitution and/or forfeitures. Under government regulations, a company, or one or more of its operating divisions or subdivisions, can also be suspended or debarred from government contracts, or lose its export privileges, based on the results of investigations. Except as described below, we believe,

based upon current information, that the outcome of any such legal proceeding, claim, or government dispute and investigation will not have a material effect on our financial position, results of operations or cash flows. Where it is reasonably possible that we will incur losses in excess of recorded amounts in connection with any of the matters set forth below, we will disclose either the amount or range of reasonably possible losses in excess of such amounts or, where no such amount or range can be reasonably estimated, the reasons why no such estimate can be made.

Multiple legal actions have been filed against us as a result of the October 29, 2018 accident of Lion Air Flight 610 and the March 10, 2019 accident of Ethiopian Airlines Flight 302. During the fourth quarter of 2021, we entered into a proposed settlement with plaintiffs in a shareholder derivative lawsuit. Under the proposed settlement, which is subject to court approval, the Company would receive monetary payments of approximately \$237, before attorneys' fees, and commit to making certain governance changes. Further, we are subject to, and cooperating with, ongoing governmental and regulatory investigations and inquiries relating to the accidents and the 737 MAX. Among these is an ongoing investigation by the Securities and Exchange Commission, the outcome of which may be material. Other than with respect to the agreement described below with the U.S. Department of Justice entered in 2021, we cannot reasonably estimate a range of loss, if any, not covered by available insurance that may result given the current status of the pending lawsuits, investigations and inquiries related to the 737 MAX.

On January 6, 2021, we entered into a Deferred Prosecution Agreement with the U.S. Department of Justice that resolves the Department of Justice's previously disclosed investigation into us regarding the evaluation of the 737 MAX airplane by the Federal Aviation Administration. Under the terms of the Deferred Prosecution Agreement, we agreed to the filing of a criminal information charging the Company with one count of conspiracy to defraud the United States, based on the conduct of two former 737 MAX program technical pilots; the criminal information will be dismissed after three years, provided that we comply with our obligations under the agreement. The Deferred Prosecution Agreement requires that we make payments totaling \$2,510, which consist of (a) a \$244 criminal monetary penalty; (b) \$500 in additional compensation to the heirs and/or beneficiaries of those who died in the Lion Air Flight 610 and Ethiopian Airlines Flight 302 accidents; and (c) \$1,770 to the Company's airline customers for harm incurred as a result of the grounding of the 737 MAX, offset in part by payments already made and the remainder satisfied through payments to be made prior to the termination of the Deferred Prosecution Agreement. The agreement also requires that we review our compliance program and undertake continuous improvement efforts with respect to it, and implement enhanced compliance reporting and internal controls mechanisms. We expensed \$744 in the fourth quarter of 2020 related to this agreement. During the first quarter, consistent with the terms of the Deferred Prosecution Agreement, the monetary penalty was paid, and the \$500 compensation amount was transferred to a fund established to benefit the heirs and/or beneficiaries of the victims of the 737 MAX accidents. In addition, the \$1,770 amount related to the Company's airline customers was included in amounts reserved in prior quarters for 737 MAX customer considerations.

During 2019, we entered into agreements with Embraer S.A. (Embraer) to establish joint ventures that included the commercial aircraft and services operations of Embraer, of which we were expected to acquire an 80 percent ownership stake for \$4,200, as well as a joint venture to promote and develop new markets for the C-390 Millennium. In 2020, we exercised our contractual right to terminate these agreements based on Embraer's failure to meet certain required closing conditions. Embraer has disputed our right to terminate the agreements, and the dispute is currently in arbitration. We cannot reasonably estimate a range of loss, if any, that may result from the arbitration.

## **Note 22 – Segment and Revenue Information**

Our primary profitability measurements to review a segment's operating results are Earnings/(loss) from operations and operating margins. We operate in four reportable segments: BCA, BDS, BGS and BCC.



All other activities fall within Unallocated items, eliminations and other. See page 63 for the Summary of Business Segment Data, which is an integral part of this note.

BCA develops, produces and markets commercial jet aircraft principally to the commercial airline industry worldwide. Revenue on commercial aircraft contracts is recognized at the point in time when an aircraft is completed and accepted by the customer.

BDS engages in the research, development, production and modification of the following products and related services: manned and unmanned military aircraft and weapons systems, surveillance and engagement, strategic defense and intelligence systems, satellite systems and space exploration. BDS revenue is generally recognized over the contract term (over time) as costs are incurred.

BGS provides parts, maintenance, modifications, logistics support, training, data analytics and information-based services to commercial and government customers worldwide. BGS segment revenue and costs include certain products and services provided to other segments. Revenue on commercial spare parts contracts is recognized at the point in time when a spare part is delivered to the customer. Revenue on other contracts is generally recognized over the contract term (over time) as costs are incurred.

BCC facilitates, arranges, structures and provides selective financing solutions for our customers.

While our principal operations are in the United States, Canada and Australia, some key suppliers and subcontractors are located in Europe and Japan. Revenues, including foreign military sales, are reported by customer location and consisted of the following:

Years ended December 31,	2021	2020	2019
Europe	<b>\$8,967</b>	\$7,961	\$10,366
Asia	<b>5,845</b>	5,931	16,346
Middle East	<b>4,653</b>	5,308	9,272
Canada	<b>969</b>	1,302	2,019
Oceania	<b>1,147</b>	832	2,006
Africa	<b>239</b>	114	1,113
Latin America, Caribbean and other	<b>1,376</b>	229	1,015
Total non-U.S. revenues	<b>23,196</b>	21,677	42,137
United States	<b>39,076</b>	36,979	42,681
Estimated potential concessions and other considerations to 737 MAX customers, net <sup>(1)</sup>	<b>14</b>	(498)	(8,259)
Total revenues	<b>\$62,286</b>	\$58,158	\$76,559

<sup>(1)</sup> Net of insurance recoveries

Revenues from the U.S. government (including foreign military sales through the U.S. government), primarily recorded at BDS and BGS, represented 49%, 51% and 39% of consolidated revenues for 2021, 2020 and 2019, respectively. Approximately 4% of operating assets were located outside the United States as of December 31, 2021 and 2020.

The following tables present BCA, BDS and BGS revenues from contracts with customers disaggregated in a number of ways, such as geographic location, contract type and the method of revenue recognition. We believe these best depict how the nature, amount, timing and uncertainty of our revenues and cash flows are affected by economic factors.

BCA revenues by customer location consisted of the following:

Years ended December 31,	2021	2020	2019
Revenue from contracts with customers:			
Europe	<b>\$4,334</b>	\$3,872	\$5,829
Middle East	<b>1,098</b>	1,647	5,761
Asia	<b>2,792</b>	2,679	12,446
Other	<b>1,681</b>	513	3,450
Total non-U.S. revenues	<b>9,905</b>	8,711	27,486
United States	<b>9,472</b>	7,899	12,676
Estimated potential concessions and other considerations to 737 MAX customers, net <sup>(1)</sup>	<b>14</b>	(498)	(8,259)
Total revenues from contracts with customers	<b>19,391</b>	16,112	31,903
Intersegment revenues, eliminated on consolidation	<b>102</b>	50	352
Total segment revenues	<b>\$19,493</b>	\$16,162	\$32,255
Revenue recognized on fixed-price contracts	<b>100 %</b>	100 %	100 %
Revenue recognized at a point in time	<b>100 %</b>	100 %	100 %

<sup>(1)</sup> Net of insurance recoveries

BDS revenues on contracts with customers, based on the customer's location, consisted of the following:

Years ended December 31,	2021	2020	2019
Revenue from contracts with customers:			
U.S. customers	<b>\$19,869</b>	\$19,662	\$19,465
Non-U.S. customers <sup>(1)</sup>	<b>6,671</b>	6,595	6,630
Total segment revenue from contracts with customers	<b>\$26,540</b>	\$26,257	\$26,095
Revenue recognized over time	<b>99 %</b>	98 %	98 %
Revenue recognized on fixed-price contracts	<b>68 %</b>	69 %	70 %
Revenue from the U.S. government <sup>(1)</sup>	<b>89 %</b>	89 %	89 %

<sup>(1)</sup> Includes revenues earned from foreign military sales through the U.S. government.

BGS revenues consisted of the following:

Years ended December 31,	2021	2020	2019
Revenue from contracts with customers:			
Commercial	\$7,527	\$6,936	\$10,167
Government	8,553	8,368	8,107
Total revenues from contracts with customers	16,080	15,304	18,274
Intersegment revenues eliminated on consolidation	248	239	194
Total segment revenues	\$16,328	\$15,543	\$18,468
Revenue recognized at a point in time	45 %	47 %	55 %
Revenue recognized on fixed-price contracts	86 %	87 %	90 %
Revenue from the U.S. government <sup>(1)</sup>	40 %	41 %	34 %

<sup>(1)</sup> Includes revenues earned from foreign military sales through the U.S. government.

### Earnings in Equity Method Investments

Our share of income or loss from equity method investments was \$40, \$86 and \$90, primarily in our BDS segment, for the years ended December 31, 2021, 2020 and 2019, respectively.

### Backlog

Our total backlog includes contracts that we and our customers are committed to perform. The value in backlog represents the estimated transaction prices on performance obligations to our customers for which work remains to be performed. Backlog is converted into revenue, primarily based on the cost incurred or at delivery and acceptance of products, depending on the applicable revenue recognition model.

Our backlog at December 31, 2021 was \$377,499. We expect approximately 17% to be converted to revenue through 2022 and approximately 74% through 2025, with the remainder thereafter. There is significant uncertainty regarding the timing of when backlog will convert into revenue due to 787 production issues and associated rework, timing of 737 MAX delivery resumption in China, timing of entry into service of the 777X, 737 MAX 7 and/or 737 MAX 10, and COVID-19 impacts.

### Unallocated Items, Eliminations and other

Unallocated items, eliminations and other include common internal services that support Boeing's global business operations, intercompany guarantees provided to BCC and eliminations of certain sales between segments. Such sales include airplanes accounted for as operating leases and considered transferred to the BCC segment. We generally allocate costs to business segments based on the U.S. federal cost accounting standards. Components of Unallocated items, eliminations and other are shown in the following table.

Years ended December 31,	2021	2020	2019
Share-based plans	(\$174)	(\$120)	(\$65)
Deferred compensation	(126)	(93)	(174)
Amortization of previously capitalized interest	(107)	(95)	(89)
Research and development expense, net	(184)	(240)	(401)
Customer financing impairment			(250)
Litigation			(109)
Eliminations and other unallocated items	(676)	(1,807)	(985)
Unallocated items, eliminations and other	(\$1,267)	(\$2,355)	(\$2,073)
Pension FAS/CAS service cost adjustment	\$882	\$1,024	\$1,071
Postretirement FAS/CAS service cost adjustment	291	359	344
FAS/CAS service cost adjustment	\$1,173	\$1,383	\$1,415

### Pension and Other Postretirement Benefit Expense

Pension costs, comprising GAAP service and prior service costs, are allocated to BCA and the commercial operations at BGS. Pension costs are allocated to BDS and BGS businesses supporting government customers using U.S. Government Cost Accounting Standards (CAS), which employ different actuarial assumptions and accounting conventions than GAAP. These costs are allocable to government contracts. Other postretirement benefit costs are allocated to business segments based on CAS, which is generally based on benefits paid. FAS/CAS service cost adjustment represents the difference between the Financial Accounting Standards (FAS) pension and postretirement service costs calculated under GAAP and costs allocated to the business segments. Non-operating pension and postretirement expenses represent the components of net periodic benefit costs other than service cost. These expenses are included in Other income, net.

## Assets

Segment assets are summarized in the table below.

December 31,	2021	2020
Commercial Airplanes	<b>\$75,863</b>	\$77,973
Defense, Space & Security	<b>14,974</b>	14,256
Global Services	<b>16,397</b>	17,399
Boeing Capital	<b>1,735</b>	1,978
Unallocated items, eliminations and other	<b>29,583</b>	40,530
<b>Total</b>	<b>\$138,552</b>	\$152,136

Assets included in Unallocated items, eliminations and other primarily consist of Cash and cash equivalents, Short-term and other investments, tax assets, capitalized interest, assets managed centrally on behalf of the four principal business segments and intercompany eliminations. From December 31, 2020 to December 31, 2021, assets in Unallocated items, eliminations and other decreased primarily due to reductions in short-term and other investment balances.

## Capital Expenditures

Years ended December 31,	2021	2020	2019
Commercial Airplanes	<b>\$177</b>	\$322	\$433
Defense, Space & Security	<b>199</b>	172	189
Global Services	<b>94</b>	127	218
Unallocated items, eliminations and other	<b>510</b>	682	994
<b>Total</b>	<b>\$980</b>	\$1,303	\$1,834

Capital expenditures for Unallocated items, eliminations and other relate primarily to assets managed centrally on behalf of the four principal business segments.

## Depreciation and Amortization

Years ended December 31,	2021	2020	2019
Commercial Airplanes	<b>\$535</b>	\$559	\$580
Defense, Space & Security	<b>233</b>	251	256
Global Services	<b>414</b>	408	424
Boeing Capital Corporation	<b>59</b>	66	64
Centrally Managed Assets <sup>(1)</sup>	<b>903</b>	962	947
<b>Total</b>	<b>\$2,144</b>	\$2,246	\$2,271

<sup>(1)</sup> Amounts shown in the table represent depreciation and amortization expense recorded by the individual business segments. Depreciation and amortization for centrally managed assets are included in segment operating earnings based on usage and occupancy. In 2021, \$668 was included in the primary business segments, of which \$386, \$222 and \$60 was included in BCA, BDS and BGS, respectively. In 2020, \$689 was included in the primary business segments, of which \$397, \$236 and \$56 was included in BCA, BDS and BGS, respectively. In 2019, \$717 was included in the primary business segments, of which \$407, \$257 and \$53 was included in BCA, BDS and BGS, respectively.

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of The Boeing Company

### Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of The Boeing Company and subsidiaries (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive income, equity, and cash flows, for each of the three years in the period ended December 31, 2021, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated January 31, 2022, expressed an unqualified opinion on the Company's internal control over financial reporting.

### Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

### Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

## **Cost Estimates for Fixed-Price Development Contracts – Refer to Notes 1 and 13 to the financial statements**

### *Critical Audit Matter Description*

As more fully described in Notes 1 and 13 to the consolidated financial statements, the Company recognizes revenue over time for long-term contracts as goods are produced or services are rendered. The Company uses costs incurred as the method for determining progress, and revenue is recognized based on costs incurred to date plus an estimate of margin at completion. The process of estimating margin at completion involves estimating the costs to complete production of goods or rendering of services and comparing those costs to the estimated final revenue amount. Fixed-price development contracts are inherently uncertain in that revenue is fixed while the estimates of costs required to complete these contracts are subject to significant variability. Due to the technical performance requirements in many of these contracts, changes to cost and revenue estimates could occur, resulting in lower margins or material reach-forward losses.

Given the complexity of certain of the Company's fixed-price development contracts, including the KC-46A Tanker, Commercial Crew, and United States Air Force VC-25B Presidential Aircraft contracts, the limited amount of historical data available in certain instances and significant judgments necessary to estimate future costs at completion, auditing these estimates involved extensive audit effort and a high degree of auditor judgment and required audit professionals with specialized industry experience.

### *How the Critical Audit Matter Was Addressed in the Audit*

Our audit procedures related to the cost estimates for the KC-46A Tanker, Commercial Crew, and United States Air Force VC-25B Presidential Aircraft fixed-price development contracts included the following, among others:

- We evaluated the appropriateness and consistency of management's methods used in developing its estimates.
- We evaluated the reasonableness of judgments made and significant assumptions used by management relating to key cost and schedule estimates, including the range and probability of reasonable outcomes, and the appropriateness of the timing of changes to key estimates.
- We performed inquiries of the Company's project managers and others directly involved with the contracts to evaluate management's ability to achieve the key cost and schedule estimates, as well as evaluate project status and project challenges which may affect total estimated costs to complete. We also observed the project work site when key estimates related to tangible or physical progress of the project.
- We tested the accuracy and completeness of the key data used in developing estimates. We developed independent expectations of reasonable outcomes using, in part, the program's data and compared our expectations to management's estimates.
- We tested the effectiveness of controls over the review of judgments made and significant assumptions used to develop key estimates, including controls over the key data used in developing the estimates and the mathematical extrapolation of such data.
- We performed retrospective reviews, comparing actual performance to estimated performance and the related financial statement impact, including the appropriateness of the timing of changes to key estimates, when evaluating the thoroughness and precision of management's estimation process and effectiveness of related internal controls.

## **Program Accounting Estimates for the 777X Program – Refer to Notes 1 and 7 to the financial statements**

### *Critical Audit Matter Description*

The introduction of new aircraft programs involves increased risk associated with meeting development, certification and production schedules. The Company uses program accounting in order to compute cost of sales and margin for each commercial airplane sold. The use of program accounting requires estimating and demonstrating customer demand for the number of units included in the program (program accounting quantity) and estimating the sales and costs over the expected life of each program. In particular, estimating the initial program accounting quantity and revenue for unsold units within the program accounting quantity involves measurement uncertainty resulting in a range of reasonable outcomes. Additionally, the level of effort to meet regulatory requirements and achieve certification may be challenging to predict, resulting in delays in the timing of entry into service and corresponding increases in estimated costs. Changes to the program accounting quantity or revenue and cost estimates could occur, resulting in lower margins or material reach-forward losses. Auditing the estimated revenues and costs for the 777X program involved extensive audit effort and required audit professionals with specialized industry experience given the high degree of complexity and subjectivity related to management's estimates.

### *How the Critical Audit Matter Was Addressed in the Audit*

Our audit procedures over the estimated revenues and costs for the anticipated 777X program accounting quantity included the following, among others:

- We inquired of the Company's management, including individuals responsible for sales and pricing, to evaluate the status of current sales campaigns, short and long-term market demand, and status of negotiations with individual customers.
- We compared management's estimate of market demand to external industry sources of expected demand.
- We evaluated the appropriateness and consistency of management's methods and significant assumptions used in developing its estimates related to the initial program accounting quantity and revenue for unsold units.
- We evaluated management's ability to estimate program revenue by comparison to historical estimates and actual results on similar programs.
- We evaluated the appropriateness and consistency of management's methods used in developing its cost estimates.
- We performed inquiries of those directly involved with the certification of the aircraft to evaluate project status and challenges which may affect total estimated costs to achieve certification of the aircraft.
- We tested the effectiveness of controls including those over the key data used in developing the estimates, the mathematical extrapolation of such data, and management's judgment regarding the range of reasonable outcomes relating to the specific estimates.



**Program Accounting Revenue Estimates for the 787 Program — Refer to Notes 1, 7, and 22 to the financial statements**

*Critical Audit Matter Description*

Production quality issues for the 787 Program have resulted in increased risk associated with forecasted revenue estimates primarily due to the difficulty in assessing the timeline for restarting 787 deliveries. The Company uses program accounting in order to compute cost of sales and margin for each commercial airplane sold. The use of program accounting requires estimating the revenue expected to be earned upon delivery of the aircraft included in the program's accounting quantity. The timing of the Federal Aviation Administration's ("FAA") approval to resume deliveries, the impact to the delivery schedule from delayed deliveries, and the value of the consideration expected to be provided to customers for delivery delays are key factors that affect estimated revenue. There is increased estimation uncertainty related to the revenue forecasts of aircraft which have reached or are expected to reach a delivery delay period that provides the customer with a contractual termination right. Due to continued uncertainty in the expected FAA approval date to resume 787 aircraft deliveries, there is significant judgment in determining which aircraft will reach these contractual termination rights. Changes to the expected delivery resumption date could have a flowthrough impact and result in additional consideration to customers. This could result in lower margins or further material reach-forward losses. Auditing the estimated revenues for the 787 program involved extensive audit effort and required professionals with specialized industry experience given the high degree of complexity and subjectivity related to management's estimates.

*How the Critical Audit Matter Was Addressed in the Audit*

Our audit procedures over the estimated revenues for the 787 program included the following, among others:

- We inquired of the Company's management, including individuals responsible for engineering and production operations, to assess whether the estimated FAA approval and delivery resumption date represent management's best estimates based on the status of the rework activity.
- We inquired of the Company's management, including the individuals communicating with the FAA, to assess if there is contradictory information to that assumed by management related to the estimated timeline for rework completion or getting FAA approval to resume deliveries.
- We evaluated the appropriateness and consistency of management's method for developing the deliveries schedule assumptions.
- We inquired of the Company's management, including individuals responsible for sales and pricing, to evaluate the status of current contracts with customers and expected consideration to be provided to customers.
- We evaluated the appropriateness and consistency of management's methods and significant assumptions used in developing its estimates related to forecasted revenue for aircraft which have or are expected to have delivery delays.
- We tested the effectiveness of controls including those over the key data used in developing the estimates, the mathematical extrapolation of such data, and management's judgment regarding the range of reasonable outcomes relating to the specific estimates.

## **Liabilities related to the 737 MAX Grounding – Refer to Note 13 to the financial statements**

### *Critical Audit Matter Description*

In 2019, following two fatal 737 MAX accidents, the FAA and non-U.S. civil aviation authorities issued orders suspending commercial operations of 737 MAX aircraft (the “737 MAX Grounding”). Deliveries resumed in the U.S. in late 2020 following rescission by the FAA of its grounding order.

During 2019, the Company recorded an initial liability in connection with estimated payments, concessions and other in-kind consideration it intends to provide to customers for disruptions related to the 737 MAX Grounding and associated delivery delays. This liability totaled \$2.9 billion at December 31, 2021 and is reflected in the financial statements in Accrued liabilities. Of the \$2.9 billion, \$2.2 billion has been contractually agreed to with customers. The liability represents the Company’s best estimate of future concessions and other consideration to its customers. To the extent not contractually agreed upon, the estimate is based on individual negotiations with customers and the substance of such negotiations.

The subjectivity of the estimate of approximately \$0.7 billion relating to consideration that has not yet been contractually agreed to with customers involved extensive audit effort and a high degree of auditor judgment and required audit professionals with specialized industry experience.

### *How the Critical Audit Matter Was Addressed in the Audit*

Our audit procedures associated with liabilities related to the 737 MAX Grounding included the following, among others:

- We inquired of management to understand developments with the 737 MAX Grounding, including the status of consideration negotiations with individual customers.
- We obtained written representations from management concerning its intent to provide consideration to customers and the extent of that consideration.
- We evaluated the significant assumptions used by management to estimate the liability for customer consideration, and, where possible, we corroborated the significant assumptions with management outside of the accounting and finance organizations.
- We reviewed the terms of customer contracts and correspondence with customers concerning potential consideration as a result of the 737 MAX Grounding.
- We evaluated the terms of settlement agreements with customers for the allocation of value provided between consideration as a result of the 737 MAX Grounding and for consideration related to the impact of current economic conditions resulting from COVID-19.
- We evaluated delivery documents for 737 MAX deliveries for incremental value provided at delivery as potential consideration as a result of the 737 MAX Grounding.
- We read minutes of meetings of the Board of Directors and its committees for evidence of unrecorded loss contingencies.
- We evaluated the Company’s disclosures for consistency with our knowledge of matters related to the 737 MAX Grounding.

/s/ Deloitte & Touche LLP

Chicago, Illinois  
January 31, 2022

We have served as the Company's auditor since at least 1934; however, an earlier year could not be reliably determined.

## **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the shareholders and the Board of Directors of The Boeing Company

### **Opinion on Internal Control over Financial Reporting**

We have audited the internal control over financial reporting of The Boeing Company and subsidiaries (the "Company") as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2021 of the Company, and our report dated January 31, 2022 expressed an unqualified opinion on those financial statements.

### **Basis for Opinion**

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

### **Definition and Limitations of Internal Control over Financial Reporting**

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP

Chicago, Illinois

January 31, 2022

**Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

**Item 9A. Controls and Procedures****(a) Evaluation of Disclosure Controls and Procedures.**

Our Chief Executive Officer and Chief Financial Officer have evaluated our disclosure controls and procedures as of December 31, 2021 and have concluded that these disclosure controls and procedures are effective to ensure that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and is accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

**(b) Management's Report on Internal Control Over Financial Reporting.**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f). Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation under the framework in Internal Control – Integrated Framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2021.

Our internal control over financial reporting as of December 31, 2021, has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report which is included in Item 8 of this report and is incorporated by reference herein.

**(c) Changes in Internal Controls Over Financial Reporting.**

There were no changes in our internal control over financial reporting that occurred during the fourth quarter of 2021 that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

**Item 9B. Other Information**

None.

### Part III

#### Item 10. Directors, Executive Officers and Corporate Governance

Our executive officers and their ages as of January 31, 2022, are as follows:

Name	Age	Principal Occupation or Employment/Other Business Affiliations
Bertrand-Marc Allen	48	Chief Strategy Officer and Senior Vice President, Strategy and Corporate Development since October 2020. Mr. Allen previously served as Senior Vice President and President, Embraer Partnership and Group Operations from April 2019 to October 2020, Senior Vice President and President, Boeing International from February 2015 to April 2019; President of Boeing Capital Corporation from March 2014 to February 2015; Corporate Vice President, Boeing International and Chairman and President of Boeing (China) Co., Ltd. from March 2011 to March 2014; and Vice President, Global Law Affairs from May 2007 to March 2011. Mr. Allen serves on the board of directors of Procter & Gamble Co.
Michael A. Arthur	71	Senior Vice President and President, Boeing International since April 2019. Mr. Arthur previously served as President of Boeing Europe from March 2016 to April 2019 and as Managing Director of Boeing United Kingdom and Ireland from September 2014 to April 2019.
David L. Calhoun	64	President and Chief Executive Officer since January 2020 and a member of the Board of Directors since June 2009. Previously, Mr. Calhoun served as Senior Managing Director & Head of Private Equity Portfolio Operations at The Blackstone Group from January 2014 to January 2020. Prior to that, Mr. Calhoun served as Chairman of the Board of Nielsen Holdings plc from January 2014 to January 2016, as Chief Executive Officer of Nielsen Holdings plc from May 2010 to January 2014, and as Chairman of the Executive Board and Chief Executive Officer of The Nielsen Company B.V. from August 2006 to January 2014. Prior to joining Nielsen, he served as Vice Chairman of General Electric Company and President and Chief Executive Officer of GE Infrastructure. During his 26-year tenure at GE, he ran multiple business units including GE Transportation, GE Aircraft Engines, GE Employers Reinsurance Corporation, GE Lighting and GE Transportation Systems. Mr. Calhoun also serves on the board of directors of Caterpillar Inc.
Leanne G. Caret	55	Executive Vice President, President and Chief Executive Officer, Boeing Defense, Space & Security since March 2016. Ms. Caret joined Boeing in 1988, and her previous positions include President of Global Services & Support from February 2015 to March 2016; Chief Financial Officer and Vice President, Finance, for BDS from March 2014 to February 2015; Vice President and General Manager, Vertical Lift from November 2012 to February 2014; and Vice President and Program Manager, Chinook from November 2009 to October 2012. Ms. Caret serves on the board of directors of Deere & Company.

Name	Age	Principal Occupation or Employment/Other Business Affiliations
Theodore Colbert III	48	Executive Vice President, President and Chief Executive Officer, Boeing Global Services since October 2019. Mr. Colbert previously served as Chief Information Officer and Senior Vice President, Information Technology & Data Analytics from April 2016 to October 2019; Chief Information Officer and Vice President of Information Technology from November 2013 to April 2016; Vice President of Information Technology Infrastructure from December 2011 to November 2013; and Vice President of IT Business Systems from September 2010 to December 2011. Mr. Colbert serves on the board of directors of Archer-Daniels-Midland Company.
Michael D'Ambrose	64	Chief Human Resources Officer and Executive Vice President, Human Resources since June 2021. Prior to joining Boeing in July 2020 as Executive Vice Present, Human Resources, Mr. D'Ambrose served as Senior Vice President and Chief Human Resources Officer for Archer-Daniels-Midland Company from October 2006 to June 2020. Previously, he served in a series of executive-level business and human resources positions, including chief human resources officer at Citigroup, First Data Corporation and Toys 'R' Us, Inc.
Edward L. Dandridge	57	Chief Communications Officer and Senior Vice President, Communications since June 2021. Prior to joining Boeing in September 2020 as Senior Vice President, Communications, Mr. Dandridge served as Global Chief Marketing and Communications Officer of AIG General Insurance from April 2018 to September 2020; Chief Marketing and Communications Officer of Marsh & McLennan Companies from March 2014 to April 2018; and Chief Marketing Officer of Collective from February 2013 to February 2014.
Stanley A. Deal	57	Executive Vice President, President and Chief Executive Officer, Boeing Commercial Airplanes since October 2019. Mr. Deal joined Boeing in 1986, and his previous positions include Executive Vice President, President and Chief Executive Officer, Boeing Global Services from November 2016 to October 2019; Senior Vice President of Commercial Aviation Services from March 2014 to November 2016; Vice President and General Manager of Supply Chain Management and Operations for Commercial Airplanes from September 2011 to February 2014; Vice President of Supplier Management from February 2010 to August 2011; and Vice President of Asia Pacific Sales from December 2006 to January 2010.
Susan Doniz	52	Chief Information Officer and Senior Vice President, Information Technology & Data Analytics since May 2020. Prior to joining Boeing, Ms. Doniz served as Global Chief Information Officer of Qantas Airways Limited from January 2017 to April 2020; as strategic advisor to the Global CEO of SAP SE on transformation and technology issues in support of customers from September 2015 to January 2017; and Global Product, Digital Strategy and Chief Information Officer of AIMIA Inc. from June 2011 to January 2015.



Name	Age	Principal Occupation or Employment/Other Business Affiliations
Brett C. Gerry	50	Chief Legal Officer and Executive Vice President, Global Compliance since May 2020. Mr. Gerry previously served as Senior Vice President and General Counsel from May 2019 to May 2020 President of Boeing Japan from February 2016 to May 2019; Vice President and General Counsel, Boeing Commercial Airplanes from March 2009 to March 2016; and Chief Counsel, Network and Space Systems from September 2008 to March 2009.
Gregory L. Hyslop	63	Chief Engineer and Executive Vice President, Engineering, Test & Technology since December 2020. Dr. Hyslop's previous positions include Chief Engineer and Senior Vice President, Engineering, Test & Technology from August 2019 to December 2020; Chief Technology Officer and Senior Vice President, Engineering, Test & Technology from March 2016 to August 2019; Vice President and General Manager of Boeing Research and Technology from February 2013 to March 2016; and Vice President and General Manager of Boeing Strategic Missile & Defense Systems from March 2009 to February 2013.
Ziad S. Ojakli	55	Executive Vice President, Government Operations since October 2021. Prior to joining Boeing, Mr. Ojakli served as a managing partner and Senior Vice President of Global Government Affairs at SoftBank Group Corp. from August 2018 to September 2020. Prior to that, he served as Group Vice President, Government & Community Relations at Ford Motor Company from January 2004 to July 2018.
Brian J. West	52	Executive Vice President and Chief Financial Officer since August 2021. Prior to joining Boeing, Mr. West served as Chief Financial Officer of Refinitiv Holdings (a London Stock Exchange Group business and provider of financial markets data and infrastructure) from November 2018 to June 2021. Prior to that, he served as Chief Financial Officer and Executive Vice President of Operations of Oscar Insurance Corporation from January 2016 to October 2018. Mr. West served as Chief Operating Officer of Nielsen Holdings plc from March 2014 to December 2015 and as Chief Financial Officer of Nielsen Holdings plc (or its predecessor) from February 2007 to March 2014. Prior to joining Nielsen, Mr. West was employed by the General Electric Company as the Chief Financial Officer of its GE Aviation division from June 2005 to February 2007 and Chief Financial Officer of its GE Aviation Services division from March 2004 to June 2005. Prior to that, Mr. West held several senior financial positions across General Electric Company businesses, including Plastics, NBC, Energy and Transportation.

Information relating to our directors and nominees will be included under the caption “Election of Directors” in our proxy statement involving the election of directors, which will be filed with the SEC no later than 120 days after December 31, 2021 and is incorporated by reference herein. Information required by Items 405, 407(d)(4) and 407(d)(5) of Regulation S-K will be included under the captions “Stock Ownership Information” and “Board Committees” in the 2022 Proxy Statement, and that information is incorporated by reference herein.

*Codes of Ethics.* We have adopted (1) The Boeing Company Code of Ethical Business Conduct for the Board of Directors; (2) The Boeing Company Code of Conduct for Finance Employees which is

applicable to our Chief Executive Officer (CEO), Chief Financial Officer (CFO), Controller and all finance employees; and (3) The Boeing Code of Conduct that applies to all employees, including our CEO (collectively, the Codes of Conduct). The Codes of Conduct are posted on our website, [www.boeing.com/company/general-info/corporate-governance.page](http://www.boeing.com/company/general-info/corporate-governance.page), and printed copies may be obtained, without charge, by contacting the Office of Internal Governance, The Boeing Company, 100 N. Riverside Plaza, Chicago, IL 60606. We intend to disclose promptly on our website any amendments to, or waivers of, the Codes of Conduct covering our CEO, CFO and/or Controller.

No family relationships exist among any of the executive officers, directors or director nominees.

### **Item 11. Executive Compensation**

The information required by Item 402 of Regulation S-K will be included under the captions “Compensation Discussion and Analysis,” “Compensation of Executive Officers” and “Compensation of Directors” in the 2022 Proxy Statement, and that information is incorporated by reference herein. The information required by Item 407(e)(4) and 407(e)(5) of Regulation S-K will be included under the captions “Compensation Committee Interlocks and Insider Participation” and “Compensation Committee Report” in the 2022 Proxy Statement, and that information is incorporated by reference herein.

## Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by Item 403 of Regulation S-K will be included under the caption “Stock Ownership Information” in the 2022 Proxy Statement, and that information is incorporated by reference herein.

### Equity Compensation Plan Information

Our equity compensation plans approved by our shareholders provide for the issuance of common stock to officers and other employees, directors and consultants. The following table sets forth information regarding outstanding options and units, and shares available for future issuance under these plans as of December 31, 2021:

Plan Category	Number of shares to be issued upon exercise of outstanding options and units	Weighted-average exercise price of outstanding options	Number of securities remaining available for future issuance under equity compensation plans (excluding shares reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by shareholders			
Stock options	1,709,379	\$121.83	
Deferred compensation	1,075,168		
Other stock units <sup>(1)</sup>	8,296,087		
Equity compensation plans not approved by shareholders	None	None	None
Total <sup>(2)</sup>	11,080,634	\$121.83	7,922,062

<sup>(1)</sup> Includes 766,802 shares issuable in respect of Performance-Based Restricted Stock Units subject to the satisfaction of performance criteria and assumes payout at maximum levels.

<sup>(2)</sup> Excludes the potential Performance Awards which the Compensation Committee has the discretion to pay in cash, stock or a combination of both after the three-year performance periods which end in 2022 and 2023.

For further information, see Note 17 to our Consolidated Financial Statements.

## Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by Item 404 of Regulation S-K will be included under the caption “Related Person Transactions” in the 2022 Proxy Statement, and that information is incorporated by reference herein.

The information required by Item 407(a) of Regulation S-K will be included under the caption “Director Independence” in the 2022 Proxy Statement, and that information is incorporated by reference herein.

## **Item 14. Principal Accountant Fees and Services**

Information about aggregate fees billed to us by our principal accountant, Deloitte & Touche LLP (PCAOB ID No. 34) will be included under the caption “Independent Auditor Fees” in the 2022 Proxy Statement, and that information is incorporated by reference herein.

## **PART IV**

## **Item 15. Exhibits, Financial Statement Schedules**

(a) List of documents filed as part of this report:

### **1. Financial Statements**

Our consolidated financial statements are as set forth under Item 8 of this report on Form 10-K.

### **2. Financial Statement Schedules**

All schedules are omitted because they are not applicable, not required or the information is included in the consolidated financial statements.

### **3. Exhibits**

- 3.1 Amended and Restated Certificate of Incorporation of The Boeing Company dated May 5, 2006 (Exhibit 3.1 to the Company's Current Report on Form 8-K dated May 1, 2006)
- 3.2 By-Laws of The Boeing Company, as amended and restated effective August 31, 2021 (Exhibit 3.2 to the Company's Current Report on Form 8-K dated September 1, 2021)
- 4.1 Description of The Boeing Company Securities Registered under Section 12 of the Exchange Act (Exhibit 4.1 to the Company's Form 10-K for the year ended December 31, 2019)
- 10.1 364-Day Credit Agreement, dated as of October 25, 2021, among The Boeing Company, for itself and on behalf of its Subsidiaries, as a Borrower, the Lenders party hereto, Citibank, N.A., as administrative agent, JPMorgan Chase Bank, N.A. as syndication agent and Citibank, N.A. and JPMorgan Chase Bank N.A., as joint lead arrangers and joint book managers (Exhibit 10.1 to the Company's Current Report on Form 8-K dated October 25, 2021)
- 10.2 Two-Year Credit Agreement, dated as of March 19, 2021, among The Boeing Company, as Borrower, the Lenders party thereto, Citibank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., as syndication agent, Bank of America, N.A. and Wells Fargo Bank, National Association, as documentation agents, and Citibank N.A., JPMorgan Chase Bank, N.A., BofA Securities, Inc. and Wells Fargo Securities, LLC, as joint lead arrangers and joint book managers (Exhibit 10.1 to the Company's Current Report on Form 8-K dated March 19, 2021)
- 10.3 Five-Year Credit Agreement, dated as of October 30, 2019, among The Boeing Company, for itself and on behalf of its Subsidiaries, as a Borrower, the Lenders party hereto, Citibank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., as syndication agent and Citibank N.A. and JPMorgan Chase Bank, N.A., as joint lead arrangers and joint book managers (Exhibit 10.2 to the Company's Current Report on Form 8-K dated October 30, 2019)

- 10.4 Three-Year Credit Agreement, dated as of October 30, 2019, among The Boeing Company, for itself and on behalf of its Subsidiaries, as a Borrower, the Lenders party hereto, Citibank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., as syndication agent and Citibank N.A. and JPMorgan Chase Bank, N.A., as joint lead arrangers and joint book managers (Exhibit 10.3 to the Company's Current Report on Form 8-K dated October 30, 2019)
- 10.5 Term Loan Credit Agreement, dated as of February 6, 2020 (Exhibit 10.1 to the Company's Current Report on Form 8-K dated February 6, 2020)
- 10.6 Joint Venture Master Agreement, dated as of May 2, 2005, by and among Lockheed Martin Corporation, The Boeing Company and United Launch Alliance, L.L.C. (Exhibit (10)(i) to the Company's Form 10-Q for the quarter ended June 30, 2005)
- 10.7 Delta Inventory Supply Agreement, dated as of December 1, 2006, by and between United Launch Alliance, L.L.C. and The Boeing Company (Exhibit (10)(vi) to the Company's Form 10-K for the year ended December 31, 2006)
- 10.8 Deferred Prosecution Agreement dated January 6, 2021 (Exhibit 10.1 to the Company's Current Report on Form 8-K dated January 6, 2021)
- 10.9 Summary of Non employee Director Compensation (Exhibit 10.6 to the Company's Form 10-K for the year ended December 31, 2019)\*
- 10.10 Deferred Compensation Plan for Directors of The Boeing Company, as amended and restated effective January 1, 2008 (Exhibit 10.2 to the Company's Current Report on Form 8-K dated October 28, 2007)\*
- 10.11 The Boeing Company Annual Incentive Plan, as amended and restated February 24, 2020 (formerly known as the Incentive Compensation Plan for Employees of The Boeing Company and Subsidiaries) (Exhibit 10.2 to the Company's Form 10-Q for the quarter ended March 31, 2020)\*
- 10.12 The Boeing Company 1997 Incentive Stock Plan, as amended effective May 1, 2000 and further amended effective January 1, 2008 (Exhibit 10.5 to the Company's Current Report on Form 8-K dated October 28, 2007)\*
- 10.13 Supplemental Executive Retirement Plan for Employees of The Boeing Company, as amended and restated as of January 1, 2016 (Exhibit (10)(xvi) to the Company's Form 10-K for the year ended December 31, 2015)\*
- 10.14 The Boeing Company Executive Supplemental Savings Plan, as amended and restated effective January 1, 2022\*
- 10.15 The Boeing Company Executive Layoff Benefits Plan, as amended and restated effective January 1, 2017 (Exhibit (10)(xviii) to the Company's Form 10-K for the year ended December 31, 2016)\*
- 10.16 The Boeing Company 2003 Incentive Stock Plan, as amended and restated effective December 9, 2021\*
- 10.17 Form of Non-Qualified Stock Option Grant Notice of Terms (Exhibit (10)(xvii)(b) to the Company's Form 10-K for the year ended December 31, 2010)\*
- 10.18 Form of U.S. Notice of Terms of Non-Qualified Stock Option (Exhibit 10.1 to the Company's 10-Q for the quarter ended March 31, 2021)\*
- 10.19 Form of International Notice of Terms of Non-Qualified Stock Option (Exhibit 10.2 to the Company's 10-Q for the quarter ended March 31, 2021)\*

- 10.20 Form of U.S. Notice of Terms of Non-Qualified Stock Option for CEO (Exhibit 10.3 to the Company's 10-Q for the quarter ended March 31, 2021)\*
- 10.21 Form of U.S. Notice of Terms of Restricted Stock Units (Exhibit 10.4 to the Company's 10-Q for the quarter ended March 31, 2021)\*
- 10.22 Form of International Notice of Terms of Restricted Stock Units (Exhibit 10.5 to the Company's 10-Q for the quarter ended March 31, 2021)\*
- 10.23 Form of U.S. Notice of Terms of Restricted Stock Units (Exhibit 10.6 to the Company's 10-Q for the quarter ended March 31, 2021)\*
- 10.24 Form of Notice of Terms of Supplemental Cash-based Award (Exhibit 10.1 to the Company's Current Report on Form 8-K dated June 29, 2021)\*
- 10.25 Form of Notice of Terms of Supplemental Restricted Stock Units (Exhibit 10.2 to the Company's Current Report on Form 8-K dated June 29, 2021)\*
- 10.26 Form of Notice of Terms of Supplemental Non-Qualified Stock Option (Exhibit 10.3 to the Company's Current Report on Form 8-K dated June 29, 2021)\*
- 10.27 Form of Notice of Terms of Performance-Based Restricted Stock Units (Exhibit 10.2 of the Company's 10-Q for the quarter ended March 31, 2018)\*
- 10.28 Form of Performance Award Notice (Exhibit 10.3 of the Company's 10-Q for the quarter ended March 31, 2018)\*
- 10.29 Form of Notice of Terms of Restricted Stock Units (Exhibit 10.1 to the Company's 10-Q for the quarter ended March 31, 2018)\*
- 10.30 Form of Notice of Terms of Supplemental Restricted Stock Units (Exhibit 10.4 to the Company's 10-Q for the quarter ended March 31, 2018)\*
- 10.31 Form of Notice of Terms of Supplemental Restricted Stock Units (Exhibit 10.1 to the Company's Current Report on Form 8-K dated June 25, 2017)\*
- 10.32 Form of Notice of Terms of Performance-Based Restricted Stock Units (Exhibit 10.3 to the Company's Form 10-Q for the quarter ended March 31, 2020)\*
- 10.33 Form of Performance Award Notice (Exhibit 10.4 to the Company's Form 10-Q for the quarter ended March 31, 2020)\*
- 10.34 Form of Notice of Terms of Restricted Stock Units (Exhibit 10.5 to the Company's Form 10-Q for the quarter ended March 31, 2020)\*
- 10.35 Form of International Notice of Terms of Performance-Based Restricted Stock Units (Exhibit 10.6 to the Company's Form 10-Q for the quarter ended March 31, 2020)\*
- 10.36 Form of International Performance Award Notice (Exhibit 10.7 to the Company's Form 10-Q for the quarter ended March 31, 2020)\*
- 10.37 Form of International Notice of Terms of Restricted Stock Units (Exhibit 10.8 to the Company's Form 10-Q for the quarter ended March 31, 2020)\*
- 10.38 Notice of Terms of Supplemental Restricted Stock Units, dated February 24, 2020 (Exhibit 10.1 to the Company's Current Report on Form 8-K dated February 23, 2020)\*
- 10.39 Notice of Terms of Supplemental Performance-Based Restricted Stock Units, dated February 24, 2020 (Exhibit 10.2 to the Company's Current Report on Form 8-K dated February 23, 2020)\*
- 10.40 Form of International Notice of Terms of Supplemental Restricted Stock Units (Exhibit 10.2 to the Company's Form 10-Q for the quarter ended June 30, 2020)\*

10.41	Employment Agreement between Boeing Canada Operations LTD and Susan Doniz (Exhibit 10.1 to the Company's Form 10-Q for the quarter ended June 30, 2020)*
21	List of Company Subsidiaries
23	Consent of Independent Registered Public Accounting Firm
31.1	Certification of Chief Executive Officer pursuant to Section 302 of Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer pursuant to Section 302 of Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer pursuant to Section 906 of Sarbanes-Oxley Act of 2002
32.2	Certification of Chief Financial Officer pursuant to Section 906 of Sarbanes-Oxley Act of 2002
99.1	Commercial Program Method of Accounting (Exhibit (99)(i) to the Company's Form 10-K for the year ended December 31, 1997)
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File - the cover page XBRL tags are embedded within the Inline XBRL document contained in Exhibit 101

\* Management contract or compensatory plan

In accordance with Item 601(b)(4)(iii)(A) of Regulation S-K, copies of certain instruments defining the rights of holders of long-term debt of the Company are not filed herewith. Pursuant to this regulation, we hereby agree to furnish a copy of any such instrument to the SEC upon request.

#### **Item 16. Form 10-K Summary**

None.

### **Signatures**

Pursuant to the requirements of Section 13 of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on January 31, 2022.

**THE BOEING COMPANY**

(Registrant)

By: /s/ Carol J. Hibbard  
Carol J. Hibbard – Senior Vice President and  
Controller



Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on January 31, 2022.

/s/ David L. Calhoun  
David L. Calhoun – President and Chief  
Executive Officer  
(Principal Executive Officer)

/s/ Akhil Johri  
Akhil Johri – Director

/s/ Brian J. West  
Brian J. West – Executive Vice President and  
Chief Financial Officer  
(Principal Financial Officer)

/s/ David L. Joyce  
David L. Joyce – Director

/s/ Carol J. Hibbard  
Carol J. Hibbard – Senior Vice President and  
Controller  
(Principal Accounting Officer)

/s/ Lawrence W. Kellner  
Lawrence W. Kellner – Chair of the Board

/s/ Robert A. Bradway  
Robert A. Bradway – Director

/s/ Steven M. Mollenkopf  
Steven M. Mollenkopf – Director

/s/ Lynne M. Doughtie  
Lynne M. Doughtie – Director

/s/ John M. Richardson  
John M. Richardson – Director

/s/ Lynn J. Good  
Lynn J. Good – Director

/s/ Ronald A. Williams  
Ronald A. Williams – Director

/s/ Stayce D. Harris  
Stayce D. Harris – Director

## Caution Concerning Forward-Looking Statements

---

Certain statements in this report may be “forward-looking” within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “may,” “should,” “expects,” “intends,” “projects,” “plans,” “believes,” “estimates,” “targets,” “anticipates” and similar expressions generally identify these forward-looking statements. Examples of forward-looking statements include statements relating to our future plans, business prospects, financial condition and operating results, as well as any other statement that does not directly relate to any historical or current fact. Forward-looking statements are based on expectations and assumptions that we believe to be reasonable when made, but that may not prove to be accurate. These statements are not guarantees and are subject to risks, uncertainties and changes in circumstances that are difficult to predict.

Many factors could cause actual results to differ materially and adversely from these forward-looking statements, including the COVID-19 pandemic and related industry impacts; the 737 MAX, including the timing and conditions of remaining 737 MAX regulatory approvals, lower than planned production rates and/or delivery rates, and additional considerations to customers and suppliers; economic conditions in the United States and globally; general market and industry conditions as they may impact us or our customers; reliance on our commercial customers, our U.S. government customers and our suppliers; the overall health of our aircraft production system, as well as the other important factors disclosed previously and from time to time in our filings with the Securities and Exchange Commission. Any forward-looking statement speaks only as of the date on which it is made, and we assume no obligation to update or revise any such statement, whether as a result of new information, future events or otherwise, except as required by law.

## Non-GAAP Measures

### Reconciliation of GAAP Measures to Non-GAAP Measures

The table below reconciles the non-GAAP financial measures of core operating (loss)/earnings, core operating margin and core (loss)/earnings per share with the most directly comparable GAAP financial measures of (loss)/earnings from operations, operating margins and diluted (loss)/earnings per share. See Pages 49–51 of Form 10-K.

U.S. dollars in millions, except per share data

	2021	2020	2019	2018	2017
Revenues	<b>62,286</b>	58,158	76,559	101,127	94,005
(Loss)/earnings from operations, as reported	<b>(2,902)</b>	(12,767)	(1,975)	11,987	10,344
Operating margins	<b>(4.7%)</b>	(22.0%)	(2.6%)	11.9%	11.0%
Pension FAS/CAS service cost adjustment	<b>(882)</b>	(1,024)	(1,071)	(1,005)	(1,127)
Post-retirement FAS/CAS service cost adjustment	<b>(291)</b>	(359)	(344)	(322)	(311)
FAS/CAS service cost adjustment	<b>(1,173)</b>	(1,383)	(1,415)	(1,327)	(1,438)
Core operating (loss)/earnings (non-GAAP)	<b>(4,075)</b>	(14,150)	(3,390)	10,660	8,906
Core operating margins (non-GAAP)	<b>(6.5%)</b>	(24.3%)	(4.4%)	10.5%	9.5%
Diluted (loss)/earnings per share, as reported	<b>(7.15)</b>	(20.88)	(1.12)	17.85	13.85
Pension FAS/CAS service cost adjustment	<b>(1.50)</b>	(1.80)	(1.89)	(1.71)	(1.84)
Post-retirement FAS/CAS service cost adjustment	<b>(0.49)</b>	(0.63)	(0.61)	(0.55)	(0.51)
Non-operating pension expense	<b>(0.91)</b>	(0.60)	(0.66)	(0.24)	(0.19)
Non-operating post-retirement expense		0.03	0.19	0.17	0.20
Provision for deferred income taxes on adjustments	<b>0.61</b>	0.63	0.62	0.49	0.82
Core (loss)/earnings per share (non-GAAP)	<b>(9.44)</b>	(23.25)	(3.47)	16.01	12.33
Weighted average diluted shares (in millions)	<b>588.0</b>	569.0	566.0	586.2	610.7

## Selected Programs, Products and Services

### Boeing Commercial Airplanes

Stanley A. Deal, Executive Vice President; President and Chief Executive Officer,  
Boeing Commercial Airplanes, Seattle, Washington, USA

#### 737 Family

##### 737-7



##### 737-8



##### 737-9



##### 737-10



Boeing is continuing to make progress on the global safe return to service of the 737 MAX. Since the U.S. Federal Aviation Administration's approval to return the 737 MAX to operations in November 2020, Boeing has delivered 272 737 MAX airplanes, and airlines have returned more than 200 previously grounded airplanes to service. With 35 airlines operating the 737 MAX, they have flown nearly 300,000 safe revenue flights totaling 720,000 flight hours. The 737 program continues to progress toward a production rate of 31 airplanes per month in early 2022.

The first 737-8 delivery took place in 2017. We currently anticipate entry into service of the 737-7 in 2022 and the first delivery of the 737-10 in 2023, dependent on regulatory approval.

*Orders:* 14,291 (all 737s)\*  
4,035 (737 MAXs)\*

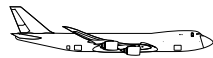
*Deliveries:* 10,877 (all 737s)\*  
659 (737 MAXs)\*

#### 747-8 Family

##### 747-8 Intercontinental



##### 747-8 Freighter



The 747-8 Intercontinental and the 747-8 Freighter are the last-generation airplanes of the iconic Boeing 747 family. The airplanes feature new wings with raked wingtips and more fuel-efficient engines than those on the 747-400. Boeing announced it will end production of the 747-8 in 2022.

The 747-8 Freighter, first delivered in 2011, carries 16% more cargo volume than the 747-400 Freighter. It is the industry's only freighter with a nose cargo door that accommodates outsized cargo.

The 747-8 Intercontinental was offered as a commercial plane or a business jet. The interior of the passenger model was inspired by the Boeing 787 Dreamliner, including a sculpted ceiling, LED dynamic lighting, larger bins and a new staircase design. The Intercontinental, first delivered in

2012, operates in the 400- to 500-seat market, seating 410 passengers in a typical three-class configuration (66 more than the 747-400).

Both the passenger and freighter variants of the 747-8 have an increased maximum takeoff weight of 987,000 pounds (447,700 kilograms), allowing airlines to reduce fuel costs and fly into more airports.

With 16% fewer emissions, the 747-8 is cleaner than the 747-400. The 747-8s in service are performing well with the highest schedule reliability in the airplane family's history.

*Orders:* 1,573\*

*Deliveries:* 1,567\*

#### 767 Family

##### 767-300 Freighter



##### 767-2C



The versatile 767 is the only Boeing product that serves the passenger, freighter and tanker markets.

Over time, the airplane has evolved to meet changing market requirements, incorporating improvements and advancements in engine performance, flight deck avionics, aerodynamics and dispatch reliability.

The 767-300 Freighter, based on the 767-300ER (Extended Range), is the most fuel-efficient aircraft per trip in the medium widebody freighter market.

The 767 Freighter offers excellent fuel efficiency, reliability and operational flexibility; low noise levels; and an all-digital flight deck to support time-critical cargo schedules even at airports with stringent noise and emission standards.

The 767-2C is the commercial platform of the KC-46A Pegasus tanker variant and is based on the 767-200ER airframe. The KC-46A is currently successfully flying refueling missions, with operators having delivered more than 60 million pounds (27 million kilograms) of fuel to a wide range of aircraft. Boeing is delivering KC-46A aerial refueling tankers to the U.S. Air Force, and the Japan Air Self-Defense Force took delivery of its first KC-46A in 2021. Israel will become the second international operator of the Pegasus tanker as the result of signing a Letter of Acceptance in February 2021 for two KC-46 aircraft.

*Orders:* 1,346\*

*Deliveries:* 1,238\*

## Selected Programs, Products and Services

### Boeing Commercial Airplanes

continued

#### 777 Family

##### 777-200LR



##### 777-300ER



##### 777 Freighter



##### 777-8



##### 777-9



The Boeing 777 is the bestselling widebody jet of all time. Renowned for its efficiency, capability and industry-leading reliability, the 777 family helps operators maximize profits while delivering an exceptional passenger experience. That's why so many of the world's elite airlines fly the 777, and eight leading customers have already ordered the newest members of the family — the 777-8 and 777-9 (777X).

Launched in November 2013, the 777-8 and 777-9 feature new breakthroughs in aerodynamics and engines to further advance Boeing's market-leading twin-aisle family. The 777-9 will be the largest and most efficient twin-engine jet in the world, delivering 10% lower fuel use, emissions and operating costs than the competition.

The superior range (up to 8,730 nautical miles [16,170 kilometers] for the 777-8) and payload capability (seating 426 in a typical two-class configuration for the 777-9) give operators an advantage in the world's fastest-growing markets. The new 777-8 and 777-9 offer customers low-risk, profitable growth for the future. For even greater flexibility, the 777-8 and 777-9 will integrate seamlessly with today's 777 and 787 Dreamliner families, already proven partners in fleets around the world. Today, more than 35 customers have chosen both the 777 and 787 Dreamliner families.

Performance is just part of the story with the new 777-8 and 777-9. With the spacious and wide cabin, innovative custom architecture and passenger comfort advancements from the 787 Dreamliner, they will deliver the flight experience of the future. Boeing began flight testing the 777-9 in January 2020, and delivery is expected in late 2023.

As Boeing continues its transition to the 777-9, the 777 Freighter has taken center stage. With 224,900 pounds (102 tonnes) of revenue payload capability, the 777 Freighter is the largest, longest-range and most fuel-efficient twin-engine freighter available today, with the lowest trip costs of any large freighter.

In addition to passenger jets, the 777, 777-8 and 777-9 are superior business jets. In December 2018, Boeing launched the 777X line of Boeing Business Jets, with the BBJ 777-8 and BBJ 777-9. The BBJ 777X will offer the largest cabin and longest range of any twin-engine business jet — capable of flying nonstop between any two cities on Earth.

Orders: 1,988 (all 777s)\*  
1,735 (777s)\*  
253 (777Xs)\*

Deliveries: 1,677\*

#### 787 Dreamliner Family

##### 787-8 Dreamliner



##### 787-9 Dreamliner



##### 787-10 Dreamliner



The Boeing 787 Dreamliner is the most innovative commercial airplane family flying today. As the fastest-selling and fastest-delivering commercial widebody airplane in history, the 787 is propelling air travel to new levels of comfort, reliability, efficiency and profitability.

Boeing designed the 787 Dreamliner to bring big-jet range and speed to a midsize airplane, enabling airlines to profitably open new direct routes. Since entering service, the 787 family has made more than 320 new point-to-point routes possible while avoiding more than 90 billion pounds (41 million tonnes) of carbon emissions (when compared with the Airbus A330).

The Dreamliner family's long range (up to 7,565 nautical miles [14,010 kilometers]) and large payload capability (up to 336 passengers in a typical two-class configuration) provide operators with unprecedented fuel economy, low operating costs and excellent cargo capacity.

Boeing Business Jets also offers 787-8 and 787-9 models, which provide the range to fly nonstop almost anywhere in the world.

The revolutionary, award-winning design of the 787 Dreamliner family delivers an unrivaled flying experience preferred by passengers around the world. Innovations that enhance the flying experience and help passengers arrive refreshed include the largest windows of any commercial jet; dynamic LED lighting that facilitates the transition between time zones; and a cabin that is pressurized at a lower altitude, with air that is less dry, for greater comfort.

Despite COVID-19 travel constraints, the 787 fleet has been the most utilized widebody serving customers, with up to 90% utilization in 2021, reinforcing the operational efficiency, value and flexibility the product family creates for its customers.

Orders: 1,417\*

Deliveries: 1,006\*

\*Orders and deliveries are as of Dec. 31, 2021

## Selected Programs, Products and Services

### Boeing Defense, Space & Security

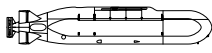
Leanne G. Caret, Executive Vice President; President and Chief Executive Officer,  
Boeing Defense, Space & Security, Arlington, Virginia, USA

#### Autonomous Systems

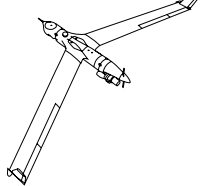
##### Boeing Airpower Teaming System



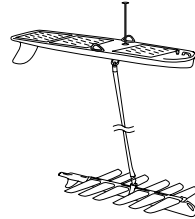
##### Echo Voyager



##### Insitu Systems



##### Liquid Robotics Wave Glider



##### MQ-25



From seabed to space, Boeing autonomous systems improve safety and increase the success of human-directed missions with platforms such as the Liquid Robotics Wave Glider; Insitu ScanEagle, Integrator and RQ-21A Blackjack; and Boeing MQ-25 and Boeing Airpower Teaming System.

In 2021, Boeing and the U.S. Navy conducted three historic uncrewed aerial refueling missions with the MQ-25 T1 test asset, transferring fuel for the first time to an F/A-18 Super Hornet, E-2D Hawkeye and F-35C Lightning II. The F/A-18 flight marked the first time in history an uncrewed aircraft refueled another aircraft. Boeing also announced a new \$200 million, 300,000-square-foot MQ-25 production facility, scheduled for completion in 2024 at MidAmerica St. Louis Airport in Illinois. In 2020, the U.S. Navy exercised an option for three additional MQ-25s, the service's first operational carrier-based uncrewed aircraft. Boeing is manufacturing seven aircraft and two test articles under the initial contract awarded in 2018, and the Navy's stated requirement is for more than 70 MQ-25s.

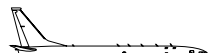
Boeing continues to innovate across domains, delivering expanded autonomy mission sets for customers around the world. These include developing Echo Voyager, an extra-large uncrewed undersea vehicle, to augment traditional undersea systems, and offering new uncrewed aerial vehicle systems such as ScanEagle3 and Integrator Extended Range. In 2021, Boeing and the Royal Australian Air Force successfully completed the first test flight of the Loyal Wingman uncrewed aircraft and expanded its flight-test program with two aircraft successfully completing separate flight missions. These aircraft are serving as the foundation for the Boeing Airpower Teaming System, an aircraft designed by Boeing Australia to complement and extend airborne missions using artificial intelligence to team with existing crewed and uncrewed military aircraft. In 2021, Liquid Robotics expanded its reach into international defense markets, delivered its largest order to date and tailored the Wave Gliders' capabilities to mission-specific anti-submarine warfare needs.

#### Commercial Derivatives

##### C-32



##### P-8A Poseidon/P-8I



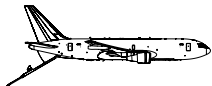
##### C-40A Clipper



##### VC-25B



##### KC-46A Pegasus



##### 737 Airborne Early Warning and Control (AEW&C)



Boeing commercial derivative aircraft combine the versatility of commercial airplanes with advanced military capability to support global security requirements. Boeing commercial derivative aircraft programs include the KC-46A Pegasus air refueling tanker, derived from the 767-2C Freighter; the P-8 maritime patrol aircraft, derived from the Next-Generation 737-800; and the VC-25B presidential aircraft, based on a uniquely modified 747-8 Intercontinental platform. For more than a half-century, Boeing has designed and produced more than 1,400 commercial derivative aircraft for nearly 40 customers in 31 countries.

In March 2021, the U.S. Navy awarded Boeing a \$1.6 billion production contract for the next 11 P-8A Poseidon aircraft. The contract includes nine aircraft for the U.S. Navy and two for the Royal Australian Air Force (RAAF). The contract brings the number of U.S. Navy P-8A aircraft to 128 and the RAAF total to 14. In September 2021, the U.S. Navy awarded Boeing a \$756.6 million contract for five P-8A Poseidon aircraft for Germany. Also in September, the P-8 program delivered the 110th-built full-production P-8A to the U.S. Navy. In October 2021, Boeing delivered the 11th P-8I, which is the third aircraft to be delivered under an option contract for four additional aircraft that the Indian Ministry of Defence placed in 2016. The P-8 program has delivered the first eight of nine aircraft to the United Kingdom in November 2021 and the first of five P-8A Poseidon aircraft to Norway. The delivery to Norway also marks the 142nd P-8 aircraft delivered to global customers. First deliveries to New Zealand, Korea and Germany are scheduled to take place in 2022, 2023 and 2024, respectively. To date, the global operating P-8 fleet has amassed more than 400,000 flight-hours.

Boeing continues to make great strides in the VC-25B program's modification phase, which includes major structural modifications, electrical power upgrades, a mission communication system, a medical facility, the executive interior and autonomous ground operations capabilities. The work on the two 747-8 Intercontinental aircraft is being performed at a Boeing facility in San Antonio.

In 2021, Boeing achieved several major milestones for the Airborne Early Warning & Control (AEW&C) program. In the United Kingdom, our team inducted two 737s into modification at a supplier, where they will undergo transformation into the Royal Air Force's future E-7 fleet. Boeing also received a Studies and Analysis contract award from the U.S. Air Force to determine a potential configuration for a future U.S. E-7A fleet.

Boeing delivered eight KC-46A multirole tanker aircraft to the U.S. Air Force in 2021. The program has now delivered 50 tankers to the U.S. Air Force at five bases across the country. Boeing also delivered the first KC-46A to the Japan Air Self-Defense Force in October 2021, marking the first KC-46A delivery outside the United States. Boeing is currently building the second KC-46A for Japan and two more are on order.

#### 2021 Deliveries:

13 KC-46A Pegasus

16 P-8A Poseidon/P-8

## Selected Programs, Products and Services

### Boeing Defense, Space & Security

continued

#### Fixed-Wing Strike

##### EA-18G Growler



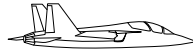
##### F-15EX Eagle II



##### F/A-18E/F Super Hornet



##### T-7A Red Hawk



Boeing delivers advanced, affordable, complementary air power with next-generation capabilities that are ready now. Platforms include the digitally transformed F-15EX Eagle II; the Block III F/A-18 Super Hornet and F/A-18 Super Hornets that have gone through the Service Life Modification (SLM) line; the EA-18G Growler, which remains the most advanced airborne electronic attack platform in service; and the T-7A advanced pilot training system, which will prepare all future U.S. Air Force fighter and bomber pilots.

Two F-15EX Eagle IIs were delivered to the U.S. Air Force in 2021 ahead of schedule and performed full-scale operational testing six months later, achieving impressive results with their advanced survivability, weapons payload and networking capabilities. The F/A-18 Super Hornet delivers next-generation multirole strike fighter capability and has open architecture hardware ready to outpace emerging threats well into the future. It is the most advanced Hornet ever delivered. In 2019, Boeing was awarded a three-year contract from the U.S. Navy for 78 Block III Super Hornets and began delivering operational Block III aircraft to the Navy in September 2021. The F/A-18 SLM line, which extends the life and capabilities of Super Hornets already in the fleet, is delivering fighters back to the U.S. Navy and will deliver Block III capabilities in the future. The Navy plans to convert all Block II Super Hornets to the Block III configuration

through the SLM process. EA-18G Growler modifications are underway, and Boeing and the Navy will modernize and upgrade the entire Growler fleet, including the addition of some Block III Super Hornet capabilities.

After the U.S. Air Force awarded Boeing the Advanced Pilot Training System contract in 2018, the T-X aircraft was officially named the T-7A Red Hawk in 2019 and given a livery with red tails, in honor of the famed Tuskegee Airmen, the first African American military aviators in the U.S. armed forces. Those World War II airmen flew aircraft with red tails. Then in 2020 the Air Force designated the T-7A Red Hawk as a pathfinder in digital design, manufacturing and flight testing. The contract is for 351 jets, 46 simulators and associated ground equipment. To date, more than 300 successful engineering and manufacturing development test flights have been accomplished as the advanced trainer begins initial production.

As a dedicated partner to the U.S. Air Force, U.S. Navy and global defense forces, Boeing continues to build capacity, ensure readiness and deliver the world's most modern capabilities for decades to come.

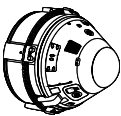
#### 2021 Deliveries:

21 F/A-18E/F Super Hornet

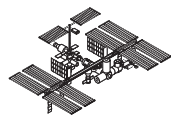
16 F-15 models

#### Human Space Exploration

##### CST-100 Starliner



##### International Space Station (ISS)



##### Space Launch System (SLS)



##### United Launch Alliance (ULA)



With experience gained from supporting every major U.S. endeavor to space, Boeing is focused on the future and proud to be part of all of NASA's human space-exploration efforts. Boeing is developing the CST-100 Starliner spacecraft to ensure NASA and the United States have redundant crew launch capabilities, enabling critical research on the International Space Station (ISS) laboratory and test bed, building heavy-lift propulsion to deep space with the Space Launch System (SLS) rocket, and delivering orbital satellites and deep-space exploratory missions with the United Launch Alliance (ULA) joint venture between Boeing and Lockheed Martin.

Boeing is designing, building, testing and flying the CST-100 Starliner under a contract with NASA's Commercial Crew Program for the safe, reliable and sustainable transportation of astronauts to and from the International Space Station. In 2021, the team continued work on the vehicle that will fly the Orbital Flight Test-2, including troubleshooting efforts related to a spacecraft valve issue discovered on the launch pad. The team also continued refurbishing a reusable crew module for the Crew Flight Test mission and building service modules for the Crew Flight Test and future missions. In parallel, engineering analyses, hazard analyses, software testing and deliveries, vehicle testing, team training and work on certification products continued.

In late December 2021, NASA extended the ISS program to 2030 to maintain operations aboard the orbiting laboratory as potential future space stations are developed. As NASA's prime contractor and integrator for ISS, Boeing will continue to support the orbiting laboratory under a \$916 million contract extension awarded in July 2020. Boeing provided the first two of six

advanced solar arrays that will augment the power supply to the orbital laboratory for years to come. Astronauts installed the first of the new arrays in June 2021 and are preparing ISS for two more arrays in 2022. The final pair will be installed in 2023. Although half the size of the originals, the advanced arrays are twice as powerful because of advances in the solar cell technology provided by Boeing subsidiary Spectrolab. Coupled with new Boeing-provided lithium-ion batteries installed in 2019, the arrays will complete a power system upgrade for ISS as it performs its third decade of operations in Earth orbit.

The first Boeing-built core stage for NASA's SLS was mated with the Interim Cryogenic Propulsion Stage and Orion crew spacecraft in 2021 at NASA's Kennedy Space Center in Florida for first launch in 2022. Meanwhile, all the main core stage structures for Artemis II, the first mission with astronauts, have been built and are being outfitted with components, while technicians at the Michoud Assembly Facility in Louisiana weld the core stage structures for the Artemis III and IV missions that will land the first woman and next man on the lunar surface. Boeing also is building the new, more powerful Exploration Upper Stage to power astronauts and cargo to the moon and beyond in a single launch, replacing the Boeing and United Alliance-built Interim Cryogenic Propulsion Stage used for the first evolution of the rocket. Before its shipment to Kennedy Space Center, Core Stage 1 completed the Green Run test series at Stennis Space Center, Mississippi, in 2021, culminating in a successful eight-minute, 19-second hot fire producing 1.6 million pounds (726,000 kilograms) of thrust. The first core stage built and tested is the flight hardware that will launch the Artemis I lunar flyby mission in 2022.



Selected Programs, Products and Services

Boeing Defense, Space & Security continued

Integrated Missile Systems

Ground-based Midcourse Defense (GMD)

Ground-Based Interceptor (GBI)



Minuteman III Intercontinental Ballistic Missile (ICBM)



Ground-based Midcourse Defense

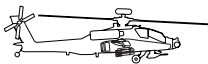
Boeing is the system developer and prime contractor for the Ground-based Midcourse Defense (GMD) system, the United States' only defense against long-range ballistic missiles. GMD consists of networked space-, sea- and land-based sensors; command and control facilities; and ground-based interceptors (GBI) connected through an extensive space and terrestrial communications network. The system has achieved 12 successful intercepts in 19 tests. Boeing continues to lead GMD development, integration, testing, operations and sustainment activities. In 2018, Boeing was awarded a \$6.5 billion agreement to extend the GMD development and sustainment contract through December 2023. In 2020, the Boeing-led team delivered 13 silos and silo interface vaults to Fort Greely, Alaska, nearly eight months ahead of the delivery schedule. In 2021, the Boeing-led team, alongside the U.S. Missile Defense Agency, demonstrated an advanced missile defense capability through a successful flight test. The test included launching a GBI into space with a three-stage booster in two-stage mode, allowing the GBI to release the kill vehicle earlier in flight.

Minuteman III Intercontinental Ballistic Missile

Since 1958, Boeing has designed, developed, delivered and sustained three generations of Minuteman intercontinental ballistic missiles (ICBM) for the U.S. Air Force as a foundational partner in our nation's mission of strategic deterrence. In 2017, the Air Force awarded Boeing more than \$330 million for sustainment and modernization efforts across the nuclear triad. In 2021, the Air Force awarded Boeing \$1.6 billion to continue guidance and navigation repair efforts for the Minuteman ICBM through 2039. Today, hundreds of Boeing employees across the country continue to maintain the readiness of the Minuteman ICBM — keeping it safe, secure and effective around the clock. Boeing looks forward to continuing our partnership with the Air Force — keeping the Minuteman ICBM mission-ready today while delivering innovative solutions to support strategic deterrence tomorrow.

Military Rotorcraft

AH-64 Apache



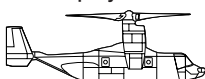
MH-139A Grey Wolf



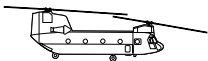
AH-6 Little Bird



V-22 Osprey



H-47 Chinook



Boeing is redefining the boundaries of military rotorcraft. Driven by proven platforms and the latest technology, Boeing supports the vital missions of defense forces around the world. Boeing military rotorcraft include the medium-to-heavy-lift cargo helicopter H-47 Chinook; the multimission attack helicopter AH-64 Apache; the light attack and reconnaissance AH-6 Little Bird; the V-22 Osprey, a multirole combat tiltrotor aircraft combining the vertical performance of a helicopter with the speed and range of a fixed-wing aircraft; and, most recently, the multimission utility helicopter MH-139A Grey Wolf. A Boeing and Sikorsky team is competing for the U.S. Army's Future Long Range Assault Aircraft competition with a purpose-built design, named DEFIANT X. Trusted and in demand by the U.S. Army, Navy, Air Force and Marines and by allied defense forces in more than 20 countries, Boeing rotorcraft products ensure that troops are prepared for the toughest missions — today and tomorrow.

In 2021, Boeing achieved several major milestones and received a number of key contract awards for rotorcraft products. In September, Boeing celebrated the 60th anniversary of the Chinook helicopter's first flight, and shortly thereafter, the company signed the first production contract for the Army's next-generation CH-47F Block II Chinook. In June, the company received a Foreign Military Sales

order from the United Kingdom for 14 H-47 extended-range Chinooks. Boeing also delivered additional CH-47F Chinooks to Australia and the first CH-47F intended for Saudi Arabia and Spain. Under a 50-50 strategic alliance, the Bell Boeing V-22 program received the first U.S. Air Force CV-22 Osprey designated for nacelle improvement modifications and supported preparations for the U.S. Navy's first deployment of the CMV-22B variant. The program also secured a contract to provide the logistics and repair support for MV-22B (Marine Corps), CMV-22 (Navy) and CV-22 (Air Force) Osprey components, while delivering additional V-22 Ospreys to Japan and more aircraft from its Common Configuration Readiness and Modernization program to the Marine Corps. Boeing delivered the 2,000th Apache to the U.S. Army in April and the AH-64 Apache was also selected as the sole source for Australia's Land 4503 Armed Reconnaissance Helicopter replacement program. Contract award is anticipated in late 2022.

2021 Deliveries:

- 27 AH-64 Apache (new)
- 56 AH-64 Apache (remanufactured)
- 15 H-47 Chinook (new)
- 5 H-47 Chinook (renewed)



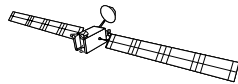
Selected Programs, Products and Services

Boeing Defense, Space & Security

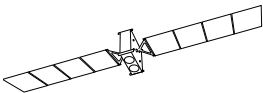
continued

Satellites

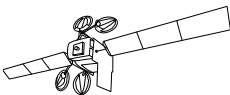
Commercial Satellites & Services  
SES-20, SES-21 (C-Band Satellites)



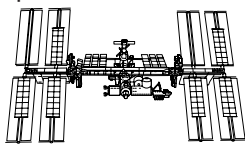
SES O3b mPOWER (702X Satellites)



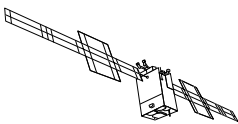
ViaSat-3 Satellites



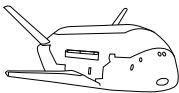
Spectrolab



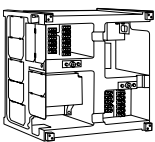
Government Satellite Systems  
Wideband Global SATCOM 11+ (WGS-11+)



X-37B Orbital Test Vehicle (OTV)



Millennium Space System (MSS)



Commercial Satellites and Services

Boeing-built satellite systems deliver the highly capable and flexible global connectivity solutions that commercial operators need today and into the future. In 2021, Boeing began building and testing the first of 11 fully software-defined 702X satellites for the SES O3b mPOWER constellation in medium Earth orbit. Work also continued on two 702SP satellites in production for SES 20/21 as well as three 702HP satellite platforms that will be integrated with ViaSat-3 payloads. Also in 2021, Spectrolab, a wholly owned Boeing subsidiary and part of the Commercial Satellites and Services portfolio, entered its 65th year of operations. Spectrolab's solar cells were the first on the moon and the first on Mars, have powered more than 1,000 satellites around the globe, and in 2021 were part of the Boeing-provided power augmentation for the International Space Station.

Government Satellite Systems

Boeing delivers major satellite and ground solutions for military, civil, intelligence and national security customers. Programs include the Wideband Global SATCOM (WGS) system, which provides dedicated high-capacity broadband communications connectivity for U.S. and allied forces around the world. In 2021, Boeing and the U.S. Space Force conducted a Critical Design Review to validate the system design for the 11th WGS satellite set to launch in 2024. Referred to as WGS-11+ because of its evolved capability, this latest rendition offers integrated phase array technology that provides hundreds of shapeable, steerable beams for resilient communications in contested environments. WGS-11+ also hosts a purpose-built anti-jam antenna with onboard nulling and Protected Tactical Waveform (PTW) processing that greatly hinders adversary signal-jamming efforts. Also in 2021, Boeing and supplier partners demonstrated Protected Tactical Enterprise Service (PTES) ground-based hardware and software capability using an operational satellite for the first time. PTES enables anti-jam PTW protection using a globally deployed system that augments the existing WGS fleet. Boeing is focused on redefining the future of MILSATCOM and protected communications.

Selected Programs, Products and Services

Boeing Defense, Space & Security

continued

Weapons

Compact Laser  
Weapon System



Harpoon

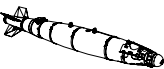


Joint Direct Attack Munition (JDAM)

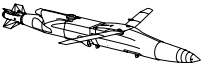
JDAM Extended Range  
(JDAM ER)



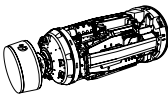
Laser JDAM



Powered JDAM



Patriot Advanced  
Capability-3 (PAC-3)  
Missile Seeker

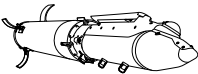


Standoff Land Attack  
Missile Expanded  
Response (SLAM ER)

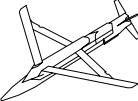


Small Diameter Bomb (SDB)

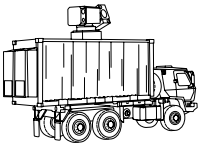
Ground Launched SDB



Laser SDB



Tactical Laser  
Weapon System



Boeing provides a high-tech portfolio of precision-guided weapons, cruise missile systems, laser weapon systems, and integrated air and missile defense solutions to the U.S. Department of Defense and more than 40 international partners, with significant investments to increase capacity and advance capability, including Joint Direct Attack Munition, Small Diameter Bomb, Harpoon, Patriot Advanced Capability-3 (PAC-3) Missile seeker and Standoff Land Attack Missile Expanded Response (SLAM ER).

In 2021, Boeing Weapons celebrated the 50th anniversary of Harpoon and completed construction on a new 35,000-square-foot manufacturing facility to support increased production for the Harpoon and SLAM ER programs. It also received multiple contracts to continue to meet warfighter needs, including a \$1 billion award to extend PAC-3 Missile seeker production into 2026. Boeing Weapons was also selected alongside General Atomics Electromagnetic Systems to develop a 300-kilowatt-class high energy laser weapon system for the U.S. Army.

## Selected Programs, Products and Services

### Boeing Global Services

Theodore Colbert III, Executive Vice President; President and Chief Executive Officer,  
Boeing Global Services, Plano, Texas, USA

#### Digital Solutions & Analytics

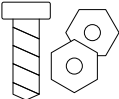


Digital Solutions & Analytics services combine data analysis and engineering know-how to deliver savings and efficiencies for customers, operators, technicians and maintainers. Our digital focus underpins and strengthens all of our solutions, which include crew management and scheduling, predictive maintenance tools and fuel optimization.

Boeing analytics experts and engineers help customers solve problems by transforming troves of aircraft and system data into actionable insights to enable higher reliability, readiness and performance while reducing costs.

Across the commercial, defense, business aviation and general aviation markets, Boeing's extensive collection of digital products and services collect, analyze and leverage insights to improve operational safety, reliability and efficiency; reduce fuel consumption and emissions; increase quality in maintenance work; and lower operating costs regardless of platform manufacturer.

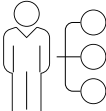
#### Engineering, Modifications & Maintenance



Engineering, Modifications & Maintenance offers technical fleet solutions for Boeing Global Services commercial and defense customers around the world. Unmatched industry innovation, agile execution and a global presence allow Boeing to convert, sustain and upgrade any type of aircraft flown today. Services range from providing technical information and expertise that help customers better manage their fleets to delivering engineering and maintenance services that help customers keep their operations running smoothly.

The diverse team has a formal presence in numerous countries, providing services to customers globally. Boeing's broad scope and infrastructure, deep customer knowledge and more than a century of expertise ensure that customers receive unparalleled engineering, modification and maintenance work wherever they operate their fleets.

#### Supply Chain



Supply Chain operates one of the industry's most comprehensive aftermarket parts and services networks. Whether customers need high-value parts, tailored solutions, or consumables and expendables, Global Services ensures they have access to the world's most robust supply chain and the flexibility, scale and purchasing power to operate efficiently. Using supply chain expertise and advanced analytics capabilities, Boeing supports all aspects of fleet management, including airplane-on-ground support, component repair, used serviceable material

offerings, and engine- and component-exchange programs that enable reliable and sustainable operations. Our original equipment manufacturer knowledge and distribution network delivers when it matters most for customers who expect stability, reliability and flexibility for their Boeing and non-Boeing platforms. Whether for in-production or out-of-production aircraft, Global Services understands the material and logistics support, notably spare parts, retrofit kits, distribution and life-cycle management, as well as performance-based logistics agreements.

#### Training Solutions



Training Solutions is a leader in aviation learning and simulator services, developing and delivering training programs, technology, simulation and analytics tools — and the software, technical services and data solutions, and training center support to go with it — to further enhance aviation safety as well as meet the career-long training needs of pilots, maintainers and cabin crew

in commercial and defense aviation learning. Enabled by Boeing's global infrastructure, data-driven approach and research facilities, Training Solutions provides superior customer support and has evolved its world-class offerings into comprehensive solutions that further enhance aviation safety.

Selected Programs, Products and Services

Boeing Engineering, Test & Technology

Gregory L. Hyslop, Chief Engineer; Executive Vice President,  
Boeing Engineering, Test & Technology, Seattle, Washington, USA

Wisk



Boeing sees electric vertical takeoff and landing (eVTOL) vehicles as critical to enabling the continued growth of the aerospace industry. This includes maturing important technologies, such as electric propulsion, autonomy and other capabilities that will be pioneered with eVTOL vehicles. At Boeing, we have a joint venture named Wisk that is working to offer the first certified, self-piloted eVTOL air taxi to market in the United States. Vehicles such as this will enable new business opportunities centered around urban air mobility. Additionally, Boeing is working with our airline customers to understand how such vehicles might integrate into their fleets, both for short-distance operations and to complement more traditional operations.

Wisk is an advanced air mobility company dedicated to delivering safe, everyday flight for everyone. Wisk's self-flying, eVTOL air taxi will make it possible for passengers to skip the traffic and get to their destination faster. Based in the San Francisco Bay Area, Atlanta and New Zealand, Wisk is an independent company backed by The Boeing Company and Kitty Hawk Corporation. With over a decade of experience and over 1,500 test flights, Wisk is shaping the future of daily commutes and urban travel, safely and sustainably.

Selected Programs, Products and Services

Boeing Capital Corporation

Timothy R. Myers, President, Boeing Capital Corporation,  
Renton, Washington, USA



Boeing Capital Corporation, a wholly owned subsidiary of The Boeing Company, is a global provider of innovative financial solutions. Drawing on its comprehensive expertise, Boeing Capital Corporation ensures that a range of efficient financial options is available for customers of Boeing products and services.

For more than five decades, Boeing Capital Corporation has been instrumental in the development of the global aircraft financing infrastructure, and it paved the way for the

emergence of modern operating lessors and banks. Today, with its unrivaled understanding of the commercial aviation industry and strong relationships with the financial, airline and lessor communities, Boeing Capital Corporation continues to develop and promote innovative financing structures as well as spearhead industry standards. As of Dec. 31, 2021, Boeing Capital Corporation managed a portfolio of approximately \$1.7 billion.

## Shareholder Information

---

### Corporate Headquarters

The Boeing Company  
100 North Riverside Plaza  
Chicago, IL 60606-1596  
312-544-2000  
[www.boeing.com](http://www.boeing.com)

### Transfer Agent, Registrar and Dividend Paying Agent

The transfer agent is responsible for shareholder records, issuance of stock, replacement of lost stock certificates, consolidation of accounts, and distribution of dividends and tax reporting documents, including Form 1099. Requests concerning these or other related shareholder matters are most efficiently answered by contacting:

Computershare Trust Company, N.A.  
P.O. Box 505000  
Louisville, KY 40233-5000  
888-777-0923  
781-575-3400 (outside the United States)  
[www.computershare.com/investor](http://www.computershare.com/investor)

Registered shareholders also can access their accounts to view their account history, account statements and tax reporting documents; change their address; certify their tax identification number; replace checks; request duplicate statements; make additional investments; and download a variety of forms related to stock transactions at [www.computershare.com/investor](http://www.computershare.com/investor).

### Electronic Delivery

Shareholders are encouraged to enroll in the electronic delivery program to receive all shareholder communications, including proxy voting materials, electronically instead of by mail. Registered shareholders can enroll at [www.computershare.com/investor](http://www.computershare.com/investor).

### Duplicate Shareholder Accounts

Registered shareholders with duplicate accounts may contact Computershare for instructions regarding the consolidation of those accounts. We recommend that registered shareholders always use the same form of their names in all stock transactions to be handled in the same account. Registered shareholders may also ask Computershare to eliminate excess mailings of annual reports going to shareholders in the same household.

### Change of Address

*For Boeing registered shareholders:*

Contact Computershare through one of the means described above.

*For Boeing beneficial shareholders:*

Contact your brokerage firm or bank to give notice of your change of address.

### Annual Meeting

Boeing's 2022 annual meeting of shareholders is scheduled to be held Friday, April 29, 2022, beginning at 9 a.m. Central time in a virtual format only at [www.virtualshareholdermeeting.com/BA2022](http://www.virtualshareholdermeeting.com/BA2022). Please refer to our proxy statement for information regarding attending the meeting virtually.

### Investor Relations Contact

The Boeing Company  
Mail Code 5003-2001  
100 North Riverside Plaza  
Chicago, IL 60606-1596  
[www.boeing.com/investors](http://www.boeing.com/investors)

### Contact to Request an Annual Report

Mail Services  
The Boeing Company  
Mail Code 3T-00  
P.O. Box 3707  
Seattle, WA 98124-2207  
[mailservices@boeing.com](mailto:mailservices@boeing.com)  
425-965-4550

In addition, an electronic version of the annual report is available at [www.boeing.com](http://www.boeing.com). You can also view electronic versions of the proxy statement, Form 10-K or Form 10-Q at [www.boeing.com](http://www.boeing.com) or on the Securities and Exchange Commission website at [www.sec.gov](http://www.sec.gov).

### Stock Exchanges

The company's common stock is traded principally on the New York Stock Exchange; the trading symbol is BA.

### Independent Auditors

Deloitte & Touche LLP  
111 South Wacker Drive  
Chicago, IL 60606-4301  
312-486-1000

### Equal Opportunity Employer

It is the policy of The Boeing Company to attract and retain the best-qualified people available without regard to race, color, religion, national origin, gender, sexual orientation, gender identity, age, physical or mental disability, genetic factors, military/veteran status or other characteristics protected by law.

## Board of Directors

(as of Feb. 28, 2022)

---

### Robert A. Bradway

Chairman and Chief Executive Officer,  
Amgen Inc.

Boeing director since 2016

*Committees: Finance (Chair);  
Governance & Public Policy*

### David L. Calhoun

President and Chief Executive Officer,  
The Boeing Company

Boeing director since 2009

### Lynne M. Doughtie

Former U.S. Chairman and  
Chief Executive Officer, KPMG

Boeing director since 2021

*Committees: Audit; Finance*

### Lynn J. Good

Chairman, President and Chief Executive  
Officer, Duke Energy Corporation

Boeing director since 2015

*Committees: Compensation (Chair); Audit*

### Stayce D. Harris

Former United Airlines Pilot;  
Former Inspector General, U.S. Air Force

Boeing director since 2021

*Committees: Aerospace Safety; Audit;  
Special Programs*

### Akhil Johri

Former Executive Vice President  
and Chief Financial Officer,  
United Technologies Corporation

Boeing director since 2020

*Committees: Audit (Chair); Finance*

### David L. Joyce

Former President and  
Chief Executive Officer, GE Aviation;  
Former Vice Chair, General Electric Company

Boeing director since 2021

*Committees: Aerospace Safety (Chair);  
Compensation; Special Programs*

### Lawrence W. Kellner

Independent Chair of the Board,  
The Boeing Company;  
Former Chairman and Chief Executive Officer,  
Continental Airlines Inc.

Boeing director since 2011

*Committees: Aerospace Safety;  
Governance & Public Policy*

### Steven M. Mollenkopf

Former Chief Executive Officer,  
Qualcomm Incorporated

Boeing director since 2020

*Committees: Compensation; Governance &  
Public Policy; Special Programs*

### John M. Richardson

31st Chief of Naval Operations;  
Former Director of Naval Nuclear  
Propulsion Program

Boeing director since 2019

*Committees: Special Programs (Chair);  
Aerospace Safety; Finance*

### Ronald A. Williams

Former Chairman, President and  
Chief Executive Officer, Aetna Inc.

Boeing director since 2010

*Committees: Governance & Public Policy  
(Chair); Compensation*

## Company Officers

(as of Feb. 28, 2022)

---

### Bertrand-Marc Allen

Chief Strategy Officer and  
Senior Vice President,  
Strategy and Corporate Development

### Michael A. Arthur

Senior Vice President  
and President,  
Boeing International

### David L. Calhoun

President and  
Chief Executive Officer

### Leanne G. Caret

Executive Vice President;  
President and Chief Executive Officer,  
Boeing Defense, Space & Security

### Theodore Colbert III

Executive Vice President;  
President and Chief Executive Officer,  
Boeing Global Services

### Michael D'Ambrose

Chief Human Resources Officer  
and Executive Vice President,  
Human Resources

### Edward L. Dandridge

Chief Communications Officer  
and Senior Vice President,  
Communications

### Stanley A. Deal

Executive Vice President;  
President and Chief Executive Officer,  
Boeing Commercial Airplanes

### John C. Demers\*

Vice President,  
Assistant General Counsel  
and Corporate Secretary

### David A. Dohnalek\*

Senior Vice President,  
Treasurer

### Susan Doniz

Chief Information Officer and  
Senior Vice President,  
Information Technology & Data Analytics

### Brett C. Gerry

Chief Legal Officer and  
Executive Vice President,  
Global Compliance

### Carol J. Hibbard\*

Senior Vice President,  
Controller

### Gregory L. Hyslop

Chief Engineer and  
Executive Vice President,  
Engineering, Test & Technology

### Ziad S. Ojakli

Executive Vice President,  
Government Operations

### Brian J. West

Executive Vice President and  
Chief Financial Officer

\*Appointed officer



## Growing Our Global Footprint

### Attracting Diverse Talent

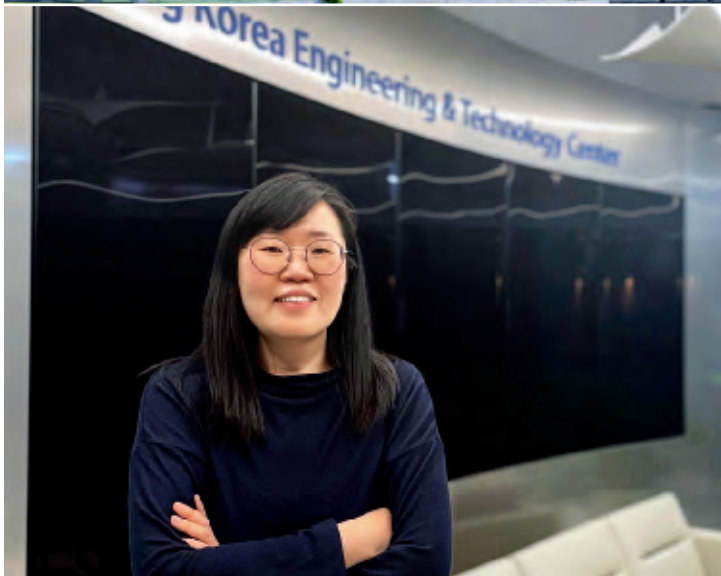
Boeing's culture of care involves creating an environment that retains and attracts the world's top talent, inspiring and motivating employees to do their best work and view the company as a special place to grow their careers by allowing them to contribute to projects that change the world. Boeing engineering centers in several countries, including Brazil, India, China and Canada, attract diverse global talent while the

company continues to invest in their innovation and growth.

In Korea, women make up almost half of the team at the Boeing Korea Engineering & Technology Center.

"It's very exciting to be able to amplify my own creativity at Boeing, and I credit that to the incredible diversity of thought and experience of my teammates."

**HAESUN KIM**  
Software Architect, Boeing AvionX



Pictured clockwise, from top: Rendering of new Boeing Engineering Center in Bengaluru, India; Employees in Winnipeg, Canada; Haesun Kim in Seoul, Korea



To learn more about job opportunities at Boeing, scan the QR code with your smartphone.





The Boeing Company  
100 North Riverside Plaza  
Chicago, IL 60606-1596  
USA

## Forward, Together

Engineer Sam Hainline (right) and Flight Operations mechanic Coy Wilhelmy consult the display of the MQ-25 deck control device, used to maneuver the uncrewed aerial refueler on a U.S. Navy aircraft carrier deck for the first time in December 2021. The demonstration aboard the USS George H.W. Bush capped off a year of firsts for the MQ-25 team, with the MQ-25 T1 test aircraft refueling three different Navy aircraft in a span of three months — and becoming the first uncrewed aircraft in history to refuel another aircraft.



MIX  
Paper from  
responsible sources  
FSC® C020268

The Boeing Company Annual Report was printed with 100% certified wind-powered energy on Forestry Stewardship Council® certified paper that contains at least 10% post-consumer waste. Copyright ©2022 Boeing. All rights reserved. Printed in the USA.