BOEING CO
Form 10-K
February 08, 2017

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K
(Mark One)
x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2016
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 par value	New York Stock Exchange
(Title of each class)	(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 x 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 x
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 x No ¨
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes x No ¨
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x
Indicate by check mark whether the registrant is a large accelerated filer, accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer x	Accelerated filer ¨
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	Smaller reporting company ¨

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

As of June 30, 2016, there were 625,858,366 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 $81.3 billion.

The number of shares of the registrant's common stock outstanding as of February 1, 2017 was 612,478,643.

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, 2016.

THE BOEING COMPANY
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For the Fiscal Year Ended December 31, 2016

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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 five principal segments:

- Commercial Airplanes;
- Our Defense, Space & Security (BDS) business comprises three segments:
  - Boeing Military Aircraft (BMA)
  - Network & Space Systems (N&SS)
  - Global Services & Support (GS&S)
- Boeing Capital (BCC).

Commercial Airplanes Segment

The Commercial Airplanes segment develops, produces and markets commercial jet aircraft and provides related 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 787-10 and 737 MAX derivatives and the 777X program. The Commercial Airplanes segment also offers aviation services support, aircraft modifications, spare parts, training, maintenance documents and technical advice to commercial and government customers worldwide.

Defense, Space & Security

Our BDS operations principally involve research, development, production, modification and support of the products and related systems as described below. BDS' primary customer is the United States Department of Defense (U.S. DoD) with approximately 64% of BDS 2016 revenues being derived from this customer (excluding foreign military sales through the U.S. government). Other significant BDS revenues were derived from the National Aeronautics and Space Administration (NASA), international defense markets, civil markets and commercial satellite markets. BDS consists of three capabilities-driven businesses: BMA, N&SS and GS&S. Additionally, the Phantom Works group is an integrated team that works with the three businesses on product development, rapid prototyping and customer engagement through experimentation and enterprise technology investment strategies.

Boeing Military Aircraft Segment

This segment is engaged in the research, development, production and modification of manned and unmanned military aircraft and weapons systems for global strike, including fighter aircraft and missile systems; vertical lift, including rotorcraft and tilt-rotor aircraft; autonomous systems; and mobility, surveillance and engagement, including command and control, battle management, airborne, anti-submarine, transport and tanker aircraft. The major programs in this segment include for global strike: EA-18G Growler Airborne Electronic Attack, F/A-18E/F Super Hornet, F-15 Strike Eagle and Joint Direct Attack Munition; for vertical lift: CH-47 Chinook, AH-64 Apache, and V-22 Osprey; for autonomous systems: ScanEagle and Integrator; and for mobility, surveillance and engagement: P-8 programs, and KC-46A Tanker.

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Network & Space Systems Segment

This segment is engaged 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. The major programs for strategic defense and intelligence systems include: Ground-based Midcourse Defense (GMD); satellite systems: commercial, civil and military satellites; and space exploration: Space Launch System (SLS), Commercial Crew and International Space Station (ISS). This segment also includes our joint venture operations related to United Launch Alliance.

Global Services & Support Segment

This segment provides customers with mission readiness through total support solutions. Our global services business sustains aircraft and systems with a full spectrum of products and services through integrated logistics, including supply chain management and engineering support; maintenance, modification and upgrades for aircraft; and training systems and government services, including pilot and maintenance training. Major programs supported by integrated logistics include the F/A-18E/F Super Hornet, F-15 Strike Eagle, AH-64 Apache and CH-47 Chinook for domestic and international customers. Aircraft modernization and sustainment includes major support performed as part of the C-17 Globemaster III Integrated Sustainment Program and aircraft programs for the Airborne Early Warning and Control (AEW&C) and Airborne Warning and Control Systems (AWACS).

Boeing Capital Segment

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

Financial and Other Business Information

See the Summary of Business Segment Data and Note 21 to our Consolidated Financial Statements for financial information, including revenues and earnings from operations, for each of our business segments.

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.

Non-U.S. Revenues

See Note 21 to our Consolidated Financial Statements for information regarding non-U.S. revenues.

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Research and Development

Research and development (R&D) expenditures involve experimentation, design, development and related test activities for defense systems, new and derivative jet aircraft including both commercial and military, advanced space and other company-sponsored product development. R&D expenditures are expensed as incurred including amounts allocable as reimbursable overhead costs on U.S. government contracts.

Our total research and development expense, net amounted to $4.6 billion, $3.3 billion and $3.0 billion in 2016, 2015 and 2014, respectively.

Research and development costs also include bid and proposal efforts related to government products and services, as well as costs incurred in excess of amounts estimated to be recoverable under cost-sharing research and development agreements. Bid and proposal costs were $311 million, $286 million and $289 million in 2016, 2015 and 2014, respectively.

Employees

Total workforce level at December 31, 2016 was approximately 150,500. As of December 31, 2016, 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)	21%	We have two major agreements; one expiring in June 2022 and one in September 2024.
The Society of Professional Engineering Employees in Aerospace (SPEEA)	13%	We have two major agreements expiring in October 2022.
The United Automobile, Aerospace and Agricultural Implement Workers of America (UAW)	1%	We have one major agreement expiring in October 2022.

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, Embraer and Bombardier, 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 greater value products, services, and support. We continue to leverage our extensive customer support services network which spans the life cycle of the airplane: aircraft acquisition, readying for service, maintenance and engineering, enhancing and upgrading, and transitioning to the next model - as well as the daily cycle of gate-to-gate operations. This enables us to provide a high level of customer satisfaction and productivity.

BDS faces strong competition in all market segments, primarily from Lockheed Martin Corporation, Northrop Grumman Corporation, Raytheon Company, 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 2017.

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Regulatory Matters

Our businesses are heavily regulated in most of our markets. We deal 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 international 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. Internationally, 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 Joint Aviation Authorities.

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 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 or former facilities or at 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 11 to our Consolidated Financial Statements.

International. Our international sales are subject to U.S. and non-U.S. governmental regulations and procurement policies and practices, including regulations relating to import-export control, investment, exchange controls, anti-corruption, and repatriation of earnings. International 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

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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 with a number of companies.

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. 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. These reports may also be obtained at the SEC’s public reference room at 100 F Street, N.E., Washington, D.C. 20549. The SEC also maintains a website at 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

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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.

Our Commercial Airplanes business depends heavily on commercial airlines, and is subject to unique risks.

Market conditions have a significant impact on demand for our commercial aircraft. 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 changes, 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. In addition, availability of financing to non-U.S. customers depends in part on the continued operations of the Export-Import Bank of the United States. Significant deterioration in the global economic environment, the airline industry generally, or in the financial stability of one or more of our major customers could result in fewer new orders for aircraft 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 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.

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Our Commercial Airplanes business depends on our ability to maintain a healthy production system, 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 and performance and reliability standards. In addition, the introduction of new aircraft programs and/or derivatives, such as the 787-10, 737 MAX and 777X, involves increased risks associated with meeting development, testing, production and certification schedules. As a result, our ability to deliver aircraft on time, satisfy regulatory and customer requirements, and achieve or maintain, as applicable, program profitability is subject to significant risks.

We must minimize disruption caused by production changes and achieve productivity improvements in order to meet customer demand and maintain our profitability. We have plans to adjust production rates on several of our commercial aircraft programs, while at the same time engaging in significant ongoing development and production of the 787-10, 737 MAX and 777X aircraft. 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 ramp-up efforts at any of our commercial aircraft assembly facilities are delayed, if other production rate changes result in 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 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 certifications, 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. Further, if we cannot efficiently and cost-effectively incorporate design changes into early build 787 aircraft, we may face further profitability pressures on this program.

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 political environment, U.S. foreign policy, macroeconomic conditions and the ability of the U.S. government to enact relevant legislation such as authorization and appropriations bills.

In addition, significant budgetary delays and constraints have already resulted in reduced spending levels, and additional reductions may be forthcoming. The Budget Control Act of 2011 (The Act) established limits on U.S. government discretionary spending, including a reduction of defense spending between the 2012

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and 2021 U.S. government fiscal years. Accordingly, long-term uncertainty remains with respect to overall levels of defense spending and it is likely that U.S. government discretionary spending levels will continue to be subject to pressure.

In addition, there continues to be significant uncertainty with respect to program-level appropriations for the U.S. DoD and other government agencies (including NASA) within the overall budgetary framework described above. While the House and Senate Appropriations committees included funding for Boeing's major programs in FY2017, such as F/A-18, CH-47 Chinook, AH-64 Apache, KC-46A Tanker and P-8 programs, uncertainty remains about how defense budgets in FY2017 and beyond will affect Boeing's programs. Future budget cuts, including cuts mandated by sequestration, or future procurement decisions 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 the results of the Company's operations, financial position and/or cash flows.

In addition, as a result of the significant ongoing uncertainty with respect to both U.S. defense spending levels and the nature of the threat environment, we expect the U.S. DoD to continue to emphasize cost-cutting and other efficiency initiatives in its procurement processes. If we can no longer adjust successfully to these changing acquisition priorities and/or fail to meet affordability targets set by the U.S. DoD customer, our revenues and market share would be further impacted.

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

In 2016, 23% of our revenues were earned pursuant to U.S. government contracts, which include foreign military sales 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 business. These requirements may result in increased compliance costs, and we could be subject to additional costs in the form of withheld payments and/or reduced future business if we fail to comply with these requirements in the future. Compliance costs attributable to current and potential future procurement regulations such as these could negatively impact our financial condition and operating results.

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 earnings, cash flow and/or financial position.

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

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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 business generated approximately 71% of its 2016 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. If our estimated costs exceed our estimated price, we recognize reach-forward losses which can significantly affect our reported results. For example, during 2016, we recorded a reach-forward loss of $1,128 million on the USAF KC-46A Tanker contract, primarily driven by additional costs attributable to design changes, testing and manufacturing complexity. 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, Saudi F-15, USAF KC-46A Tanker, and commercial and military satellites.

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

Our BDS business generated approximately 29% of its 2016 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 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.

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Our ability to deliver products and services that satisfy customer requirements is heavily dependent on the performance 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 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 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 geo-political 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. For example, we continue to monitor political unrest involving Russia and Ukraine, where we and some of our suppliers source titanium products and/or have operations.

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. Suppliers' assertions are also assessed and considered in estimating costs and profit rates. Estimates of award fees are also used in sales and profit rates based on actual and anticipated awards.

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. 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 –

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Critical Accounting Policies – Contract Accounting/Program Accounting" on pages 44 – 45 and Note 1 to our Consolidated Financial Statements on pages 55 – 66 of this Form 10-K.

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 and service providers in one or more of our market segments. In our BDS business, we anticipate that the effects of defense industry consolidation, fewer large and new programs and new priorities, including near and long-term cost competitiveness, of our U.S. DoD and international customers will intensify competition for many of our products and services. 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 2016, non-U.S. customers accounted for approximately 59% 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;
- domestic and international 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 international 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.

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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 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 and results of operations.
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 earnings, cash flows and/or financial position could be materially adversely affected.
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. As of December 31, 2016 and 2015, our airplane financing commitments totaled $14,847 million and $16,283 million. If we require additional funding in order to fund outstanding financing commitments or meet other business requirements, our market liquidity may not be sufficient. 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. The occurrence of any or all of these events may adversely affect our ability to fund our operations and contractual or financing commitments.
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

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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.

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, missile systems, 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.

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 weather or other acts of nature and pandemics or other public health crises. Any of these disruptions could affect our internal operations or our ability to deliver products and services to our customers. Any significant production delays, or any destruction, manipulation or improper use of our 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.

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

Approximately 57,000 employees, which constitute 38% of our total workforce, were union represented as of December 31, 2016. We experienced a work stoppage in 2008 when a labor strike halted commercial aircraft and certain BMA 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 7 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.

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

The majority 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

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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-Pension Plans” on pages 46 – 47 of this Form 10-K. Although GAAP expense and pension or other postretirement benefit 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 operations expose us to the risk of material environmental liabilities.

We are subject to various 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 may be 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 may become subject to such costs due to an indemnification agreement between us and a third party relating to such environmental liabilities. In addition, 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 11 to our Consolidated Financial Statements.

Unauthorized access to our or our customers’ 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. Many of these customers face similar security threats. If we cannot prevent the unauthorized access, release and/or corruption of our customers’ confidential, classified or personally identifiable information, our reputation could be damaged, and/or we could face financial losses.

Item 1B. Unresolved Staff Comments

Not applicable

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Item 2. Properties

We occupied approximately 86 million square feet of floor space on December 31, 2016 for manufacturing, warehousing, engineering, administration and other productive uses, of which approximately 96% was located in the United States. The following table provides a summary of the floor space by business as of December 31, 2016:

(Square feet in thousands)	Owned	Leased	Government Owned[1]	Total
Commercial Airplanes	41,470	5,753		47,223
Defense, Space & Security	26,775	7,975		34,750
Other[2]	2,399	866	319	3,584
Total	70,644	14,594	319	85,557

[1] Excludes rent-free space furnished by U.S. government landlord of 260 square feet.

[2] Other includes BCC, sites used for common internal services and our Corporate Headquarters.

At December 31, 2016, we occupied in excess of 76.9 million square feet of floor space at the following major locations:

- Commercial Airplanes – Greater Seattle, WA; Greater Charleston, SC; Portland, OR; Greater Los Angeles, CA; Greater Salt Lake City, UT; Australia; and Canada
- Defense, Space & Security – Greater St. Louis, MO; Greater Los Angeles, CA; Greater Seattle, WA; Philadelphia, PA; Mesa, AZ; San Antonio, TX; Huntsville, AL; Greater Washington, DC; Oklahoma City, OK; and Houston, TX
- Other – Chicago, IL and Greater Seattle, WA

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.

We believe that our major properties are adequate for our present needs and, as supplemented by planned improvements and construction, expect them to remain adequate for the foreseeable future.

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 20 to our Consolidated Financial Statements, which is hereby incorporated by reference.

Item 4. Mine Safety Disclosures

Not applicable

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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 February 1, 2017, there were 113,517 shareholders of record. Additional information required by this item is incorporated by reference from Note 22 to our Consolidated Financial Statements.

Issuer Purchases of Equity Securities

The following table provides information about purchases we made during the quarter ended December 31, 2016 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[1]	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[2]
10/1/2016 thru 10/31/2016	3,677,690	$136.16	3,672,589	$7,000
11/1/2016 thru 11/30/2016	12,436	140.32		7,000
12/1/2016 thru 12/31/2016	54,175	155.67		14,000
Total	3,744,301	$136.46	3,672,589	

(1) We purchased an aggregate of 3,672,589 shares of our common stock in the open market pursuant to our repurchase plan and 71,713 shares 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 shares in swap transactions.

(2) On December 12, 2016, we announced a new repurchase plan for up to $14 billion of common stock, replacing the plan previously authorized in 2015.

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Item 6. Selected Financial Data

Five-Year Summary (Unaudited)

(Dollars in millions, except per share data)	2016	2015	2014	2013	2012
Operations					
Revenues:					
Commercial Airplanes	$65,069	$66,048	$59,990	$52,981	$49,127
Defense, Space & Security:[1]					
Boeing Military Aircraft	12,515	13,424	13,410	15,161	15,223
Network & Space Systems	7,046	7,751	8,003	8,512	7,911
Global Services & Support	9,937	9,213	9,468	9,524	9,473
Total Defense, Space & Security	29,498	30,388	30,881	33,197	32,607
Boeing Capital	298	413	416	408	468
Unallocated items, eliminations, and other	(294)	(735)	(525)	37	(504)
Total revenues	$94,571	$96,114	$90,762	$86,623	$81,698
General and administrative expense	3,616	3,525	3,767	3,956	3,717
Research and development expense	4,627	3,331	3,047	3,071	3,298
Other income/(loss), net	40	(13)	(3)	56	62
Net earnings from continuing operations	$4,895	$5,176	$5,446	$4,586	$3,903
Net loss on disposal of discontinued operations, net of tax				(1)	(3)
Net earnings	$4,895	$5,176	$5,446	$4,585	$3,900
Basic earnings per share from continuing operations	7.70	7.52	7.47	6.03	5.15
Diluted earnings per share from continuing operations	7.61	7.44	7.38	5.96	5.11
Cash dividends declared	$2,902	$2,575	$2,210	$1,642	$1,360
Per share	4.69	3.82	3.10	2.19	1.81
Additions to Property, plant and equipment	2,613	2,450	2,236	2,098	1,703
Depreciation of Property, plant and equipment	1,418	1,357	1,414	1,338	1,248
Year-end workforce	150,500	161,400	165,500	168,400	174,400
Financial position at December 31					
Total assets	$89,997	$94,408	$92,921	$90,014	$84,528
Working capital	12,354	17,822	19,534	19,830	16,667
Property, plant and equipment, net	12,807	12,076	11,007	10,224	9,660
Cash and cash equivalents	8,801	11,302	11,733	9,088	10,341
Short-term and other investments	1,228	750	1,359	6,170	3,217
Total debt	9,952	9,964	9,070	9,635	10,409
Customer financing assets	4,201	3,570	3,561	3,971	4,420
Shareholders' equity	817	6,335	8,665	14,875	5,867
Common shares outstanding (in millions)	617.2	666.6	706.7	747.4	755.6
Contractual Backlog:					
Commercial Airplanes	$416,198	$431,408	$440,118	$372,980	$317,287
Defense, Space & Security:					
Boeing Military Aircraft	21,415	19,947	21,078	23,510	27,787
Network & Space Systems	5,054	7,368	8,935	9,832	10,078
Global Services & Support	15,610	17,872	16,961	16,339	17,203
Total Defense, Space & Security	42,079	45,187	46,974	49,681	55,068
Total contractual backlog	$458,277	$476,595	$487,092	$422,661	$372,355

Cash dividends have been paid on common stock every year since 1942.

[1] Effective in 2016, certain programs were realigned between BDS segments. Prior years have been recast for segment realignments.

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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 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 many countries and rely on an extensive network of international partners, key suppliers and subcontractors.

Our strategy is centered on successful execution in healthy core businesses – Commercial Airplanes and Defense, Space & Security (BDS) – 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 we price our products and services to provide a fair return for our shareholders while continuing to find new ways to improve efficiency and quality. Commercial Airplanes is committed to being the leader in commercial aviation by offering airplanes and services that deliver superior design, 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 its 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. Our strategy also benefits us as the cyclicality of commercial and defense markets sometimes offset. BCC facilitates, arranges, structures and provides selective financing solutions for our Boeing customers.

In November 2016, we announced plans for the formation of Boeing Global Services (BGS), which will bring together certain Commercial Aviation Services businesses currently included in the Commercial Airplanes segment and certain BDS businesses (primarily those currently included in the Global Services & Support (GS&S) segment). We expect BGS to be operational during the second half of 2017.

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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,	2016	2015	2014
Revenues	$94,571	$96,114	$90,762
GAAP			
Earnings from operations	5,834	7,443	7,473
Operating margins	6.2 %	7.7 %	8.2 %
Effective income tax rate	12.1 %	27.7 %	23.7 %
Net earnings	$4,895	$5,176	$5,446
Diluted earnings per share	$7.61	$7.44	$7.38
Non-GAAP [1]			
Core operating earnings	$5,464	$7,741	$8,860
Core operating margins	5.8 %	8.1 %	9.8 %
Core earnings per share	$7.24	$7.72	$8.60

(1) These measures exclude certain components of pension and other postretirement benefit expense. See page 42 - 43 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,	2016	2015	2014
Commercial Airplanes	$65,069	$66,048	$59,990
Defense, Space & Security	29,498	30,388	30,881
Boeing Capital	298	413	416
Unallocated items, eliminations and other	(294)	(735)	(525)
Total	$94,571	$96,114	$90,762

Revenues in 2016 decreased by $1,543 million or 2% compared with 2015. Commercial Airplanes revenues decreased by $979 million or 1% primarily due to lower deliveries. BDS revenues for 2016 decreased by $890 million compared with the same period in 2015 due to lower revenues in Boeing Military Aircraft (BMA) and Network & Space Systems (N&SS), partially offset by higher revenues in GS&S.

Revenues in 2015 increased by $5,352 million or 6% compared with 2014. Commercial Airplanes revenues increased by $6,058 million or 10% due to higher new airplane deliveries and mix. BDS revenues decreased by $493 million or 2% primarily due to lower revenues in the GS&S and N&SS segments.

The changes in unallocated items, eliminations and other in 2016, 2015 and 2014 primarily reflect the timing of eliminations for intercompany aircraft deliveries.

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Earnings From Operations

The following table summarizes Earnings from operations:

(Dollars in millions)

Years ended December 31,	2016	2015	2014
Commercial Airplanes	$3,130	$5,157	$6,411
Defense, Space & Security	3,008	3,274	3,133
Boeing Capital	59	50	92
Unallocated pension and other postretirement benefit income/(expense)	370	(298)	(1,387)
Other unallocated items and eliminations	(733)	(740)	(776)
Earnings from operations (GAAP)	$5,834	$7,443	$7,473
Unallocated pension and other postretirement benefit	(370)	298	1,387
Core operating earnings (Non-GAAP)	$5,464	$7,741	$8,860

Earnings from operations in 2016 decreased by $1,609 million compared with 2015 due to lower earnings at Commercial Airplanes, partially offset by the change in unallocated pension and postretirement income/(expense).

Commercial Airplanes earnings in 2016 decreased by $2,027 million primarily due to the reclassification of $1,235 million of 787 flight test aircraft costs to research and development and higher reach-forward losses on the 747 and KC-46A Tanker programs. The reclassification of flight test aircraft costs was recorded in second quarter as a result of our determination that two 787 flight test aircraft were no longer commercially saleable. The change in the unallocated pension and postretirement income/(expense) in 2016 was primarily driven by lower service costs and lower amortization of actuarial losses.

Earnings from operations in 2015 decreased by $30 million compared with 2014 primarily reflecting a fourth quarter charge of $885 million related to the 747 program at Commercial Airplanes and higher charges of $410 million related to the USAF KC-46A Tanker recorded by Commercial Airplanes and our BMA segment, partially offset by lower unallocated pension and other postretirement benefit expense of $1,089 million. The 2015 unallocated expense is lower than 2014, primarily due to the lower amortization of pension costs capitalized as inventory in prior years as well as lower settlements and curtailments.

During 2016, 2015 and 2014, we recorded reach-forward losses on the KC-46A Tanker program. In 2016, we recorded charges of $1,128 million, of which $772 million was recorded at Commercial Airplanes and $356 million at our BMA segment. During 2015, we recorded charges of $835 million: $513 million at Commercial Airplanes and $322 million at our BMA segment. During 2014, we recorded charges of $425 million: $238 million at Commercial Airplanes and $187 million at our BMA segment. During 2016 and 2015 we recorded reach-forward losses on the 747 program of $1,258 million and $885 million.

Core operating earnings for 2016 decreased by $2,277 million compared with 2015 primarily due to the reclassification of costs related to the 787 flight test aircraft and higher charges on the 747 and KC-46A Tanker programs described above.

Core operating earnings in 2015 decreased by $1,119 million compared with 2014 primarily due to the 2015 747 charge and higher KC-46A Tanker charges.

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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,	2016	2015	2014
Share-based plans	($66)	($76)	($67)
Deferred compensation	(46)	(63)	(44)
Eliminations and other	(621)	(601)	(665)
Sub-total (included in core operating earnings*)	(733)	(740)	(776)
Pension	217	(421)	(1,469)
Postretirement	153	123	82
Pension and other postretirement benefit income/(expense) (excluded from core operating earnings*)	370	(298)	(1,387)
Total unallocated items, eliminations and other	($363)	($1,038)	($2,163)

* Core operating earnings is a Non-GAAP measure that excludes certain components of pension and other postretirement benefit expense. See pages 42 - 43.

Deferred compensation expense decreased by $17 million in 2016 and increased by $19 million in 2015, primarily driven by changes in broad stock market conditions and our stock price.

Eliminations and other unallocated expense increased by $20 million in 2016 and decreased by $64 million in 2015 primarily due to the timing of the elimination of profit on intercompany aircraft deliveries and expense allocations.

Net periodic benefit cost related to pension totaled $523 million, $2,786 million and $2,208 million in 2016, 2015 and 2014, respectively. The components of net periodic benefit cost are shown in the following table:

	Pension		
Years ended December 31,	2016	2015	2014
Service cost	$604	$1,764	$1,661
Interest cost	3,050	2,990	3,058
Expected return on plan assets	(3,999)	(4,031)	(4,169)
Amortization of prior service costs	38	196	177
Recognized net actuarial loss	790	1,577	1,020
Settlement/curtailment/other losses	40	290	461
Net periodic benefit cost	$523	$2,786	$2,208

The decrease in net periodic pension benefit cost of $2,263 million in 2016 is primarily due to lower service costs and lower amortization of actuarial losses. The lower service costs reflect the changes to our retirement plans whereby certain employees transitioned in 2016 to a company-funded defined contribution retirement savings plan. The lower amortization of actuarial losses reflects actuarial gains in 2015 resulting from the year-end discount rate increase from 3.9% to 4.2%.

The increase in 2015 net periodic benefit cost related to pension is primarily due to $557 million of higher amortization of actuarial losses in 2015 resulting from the 2014 year-end discount rate decrease from 4.8% to 3.9%.

A portion of net periodic benefit cost is recognized in Earnings from operations in the period incurred and the remainder is included in inventory at the end of the reporting period and recorded in Earnings from operations in subsequent periods. Costs are allocated to the business segments as described in Note 21.

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

(Dollars in millions)	Pension		
Years ended December 31,	2016	2015	2014
Allocated to business segments	($2,196)	($1,945)	($1,746)
Unallocated items, eliminations and other	217	(421)	(1,469)
Total	($1,979)	($2,366)	($3,215)

The unallocated pension costs recognized in earnings in 2016 was a benefit of $217 million compared with expense of $421 million in 2015. The 2016 benefit reflects the difference between the higher segment allocation compared to the U.S. GAAP net periodic pension costs recognized in earnings in the current period. Unallocated pension expense recognized in earnings decreased by $1,048 million in 2015 primarily due to lower amortization of pension costs capitalized as inventory in prior years and lower curtailment charges in 2015.

Other Earnings Items

(Dollars in millions)			
Years ended December 31,	2016	2015	2014
Earnings from operations	$5,834	$7,443	$7,473
Other income/(loss), net	40	(13)	(3)
Interest and debt expense	(306)	(275)	(333)
Earnings before income taxes	5,568	7,155	7,137
Income tax expense	(673)	(1,979)	(1,691)
Net earnings from continuing operations	$4,895	$5,176	$5,446

Interest and debt expense increased by $31 million in 2016 as a result of higher average debt balances.

Our effective income tax rates were 12.1%, 27.7% and 23.7% for the years ended December 31, 2016, 2015 and 2014, respectively. Our 2016 effective tax rate was lower than 2015 primarily due to tax benefits of $617 million recorded in the third quarter of 2016 related to tax basis adjustments and settlement of the 2011 - 2012 federal tax audits. Our 2015 effective tax rate was higher than 2014 primarily due to tax benefits of $524 million recorded in the second quarter of 2014 related to tax basis adjustments and settlement of the 2007-2010 federal tax audits. 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 Commercial Airplanes segment predominantly uses program accounting to account for cost of sales and BDS predominantly uses contract accounting. 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. Under contract accounting, the amount reported as cost of sales is determined by applying the estimated cost of sales percentage to the amount of revenue recognized.

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The following table summarizes cost of sales:

(Dollars in millions)

Years ended December 31,	2016	2015	Change	2015	2014	Change
Cost of sales	$80,790	$82,088	($1,298)	$82,088	$76,752	$5,336
Cost of sales as a % of revenues	85.4 %	85.4 %	0.0 %	85.4 %	84.6 %	0.8 %

Cost of sales in 2016 decreased by $1,298 million, or 2%, compared with 2015, primarily due to lower volume across all segments, partially offset by the 747 reach-forward losses at Commercial Airplanes.

Cost of sales in 2015 increased by $5,336 million, or 7%, compared with 2014, primarily driven by the $5,352 million, or 6%, increase in revenues. Cost of sales at Commercial Airplanes increased by $6,846 million, or 14%, primarily driven by the 10% increase in revenues. Cost of sales at BDS decreased by $252 million, or 1%, primarily due to the 2% reduction in revenues. Cost of sales as a percentage of revenue was approximately 85.4% in 2015 compared with 84.6% in 2014 primarily driven by the 2015 747 charge and higher KC-46A Tanker charges.

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

(Dollars in millions)

Years ended December 31,	2016	2015	2014
Commercial Airplanes	$3,755	$2,340	$1,881
Defense, Space & Security	919	986	1,158
Other	(47)	5	8
Total	$4,627	$3,331	$3,047

Research and development expense in 2016 increased by $1,296 million compared with 2015 primarily due to the reclassification of $1,235 million of costs from inventory in the second quarter of 2016 related to the fourth and fifth 787 flight test aircraft and higher spending on 777X at Commercial Airplanes. Research and development expense in 2015 increased by $284 million compared with 2014 primarily due to higher 777X spending at Commercial Airplanes which more than offset lower spending at BDS.

Backlog

Our backlog at December 31 was as follows:

(Dollars in millions)	2016	2015	2014
Contractual Backlog:			
Commercial Airplanes	$416,198	$431,408	$440,118
Defense, Space & Security:			
Boeing Military Aircraft	21,415	19,947	21,078
Network & Space Systems	5,054	7,368	8,935
Global Services & Support	15,610	17,872	16,961
Total Defense, Space & Security	42,079	45,187	46,974
Total contractual backlog	$458,277	$476,595	$487,092
Unobligated backlog	$15,215	$12,704	$15,299

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Contractual backlog of unfilled orders excludes purchase options, announced orders for which definitive contracts have not been executed, and unobligated U.S. and non-U.S. government contract funding. The decrease in contractual backlog during 2016 and 2015 was primarily due to deliveries in excess of net orders.

Unobligated backlog includes U.S. and non-U.S. government definitive contracts for which funding has not been authorized. The increase in unobligated backlog in 2016 was primarily due to contract awards, partially offset by reclassifications to contractual backlog related to BDS contracts. The decrease in unobligated backlog in 2015 was primarily due to reclassifications to contractual backlog related to incremental funding for BDS contracts, partially offset by contract awards.

Additional Considerations

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. The KC-46A Tanker is a derivative of our 767 commercial aircraft. This Engineering, Manufacturing and Development (EMD) contract is a fixed-price incentive fee contract valued at $4.9 billion and involves highly complex designs and systems integration. The EMD contract is currently in the certification and flight testing phases. In 2015, we began work on low rate initial production (LRIP) aircraft for the USAF. During the third quarter of 2016, following our achievement of key flight testing milestones, the USAF authorized two LRIP lots for 7 and 12 aircraft valued at $2.8 billion. On January 27, 2017, the USAF authorized an additional LRIP lot for 15 aircraft valued at $2.1 billion.

Through 2015, we recorded reach-forward losses of $1,260 million related to the EMD contract and LRIP aircraft. During 2016 we recorded reach-forward losses of $1,128 million. In the first quarter of 2016, we recorded charges of $243 million which were primarily driven by higher than anticipated certification and test rework and the change incorporation impact to EMD and LRIP aircraft. In the second quarter of 2016, technical complexities and schedule delays resulted in charges of $573 million. The charges were driven by costs associated with certification delays and higher costs associated with the overall revised schedule, as well as a boom axial load issue that required a hardware solution, and production concurrency between late-stage development testing and the initial production aircraft. Charges of $312 million in the fourth quarter were primarily driven by greater than anticipated effort required to incorporate previously identified changes into LRIP aircraft currently in production, along with associated manufacturing and schedule disruptions. The need for this additional work was identified as aircraft were being prepared for certification and testing. As with any development program, this program remains subject to additional reach-forward losses if we experience further technical or quality issues, schedule delays or increased costs.

The first tanker delivery is expected to occur in late 2017 with 18 fully operational aircraft to be delivered in early 2018. The contract contains production options for both LRIP aircraft and full rate production aircraft. If all options under the contract are exercised, we expect to deliver 179 aircraft for a total expected contract value of approximately $30 billion.

Russia/Ukraine We continue to monitor political unrest involving Russia and Ukraine, where we and some of our suppliers source titanium products and/or have operations. A number of our commercial customers also have operations in Russia and Ukraine. To date, we have not experienced any significant disruptions to production or deliveries. Should suppliers or customers experience disruption, our production and/or deliveries could be materially impacted.

Export-Import Bank of the United States Many of our non-U.S. customers finance purchases through the Export-Import Bank of the United States. Following the expiration of the bank’s charter on June 30, 2015, the bank’s charter was reauthorized in December 2015. The bank is now authorized through September 30, 2019. However, until the U.S. Senate confirms members sufficient to reconstitute a quorum of the bank’s board of directors, the bank will not be able to approve any transaction totaling more than

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$10 million. As a result, we may fund additional commitments and/or enter into new financing arrangements with customers. Certain of our non-U.S. customers also may seek to delay purchases if they cannot obtain financing at reasonable costs, and there may be further impacts with respect to future sales campaigns involving non-U.S. customers. We continue to work with our customers to mitigate risks associated with the lack of a quorum of the bank's board of directors and assist with alternative third party financing sources.

Segment Results of Operations and Financial Condition

Commercial Airplanes

Business Environment and Trends

Airline Industry Environment Passenger traffic growth is estimated at approximately 6% in 2016. While growth was strong across all major world regions, there continues to be significant variation between regions and airline business models. Airlines operating in the Middle East and Asia Pacific regions as well as low-cost-carriers globally are currently leading passenger growth. Air cargo traffic growth is estimated at approximately 3% in 2016. The sluggish air cargo market recovery has resulted in reduced orders and demand for new freighter aircraft and freighter conversions.

Airline financial performance also plays a role in the demand for new capacity. Airlines continue to focus on increasing revenue through alliances, partnerships, new marketing initiatives, and effective leveraging of ancillary services and related revenues. Airlines are also relentlessly focusing on reducing costs by renewing fleets to leverage more efficient airplanes and in 2016 benefited significantly from lower fuel costs. Net profits for the global airline industry are estimated to be approximately $36 billion in 2016. 2017 airline profits are expected to be slightly lower than 2016, at approximately $30 billion.

The long-term outlook for the industry continues to remain positive due to the fundamental drivers of air travel growth: economic growth and the increasing propensity to travel due to increased trade, globalization, and improved airline services driven by liberalization of air traffic rights between countries. Our 20-year forecast projects a long-term average growth rate of 4.8% per year for passenger traffic and 4.2% for cargo traffic. Based on long-term projections of 2.9% average annual GDP growth, we project a $5.9 trillion market for approximately 39,600 new airplanes over the next 20 years. However, we continue to monitor near-term market conditions in the wide-body segment.

The industry remains vulnerable to near-term exogenous developments including fuel price spikes, credit market shocks, terrorism, natural disasters, conflicts, epidemics and increased global environmental regulations.

Industry Competitiveness The commercial jet airplane market and the airline industry remain extremely competitive. Market liberalization in Europe, the Middle East and Asia is enabling low-cost airlines to continue gaining market share. These airlines are increasing the pressure on airfares. This results in continued cost pressures for all airlines and price pressure on our products. Major productivity gains are essential to ensure a favorable market position at acceptable profit margins.

Continued access to global markets remains vital to our ability to fully realize our sales potential and long-term investment returns. Approximately 11% of Commercial Airplanes' contractual backlog, in dollar terms, is with U.S. airlines, including cargo carriers.

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. With government support, Airbus has historically invested heavily to create a family of products to compete with ours. Regional jet makers Embraer and Bombardier, coming from the less than 100-seat commercial jet market, continue to develop larger and increasingly capable airplanes. Additionally, other competitors from Russia, China and Japan are developing commercial jet aircraft in the market above 90 seats. Some of these competitors

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have historically enjoyed access to government-provided financial support, including “launch aid,” which greatly reduces the commercial risks associated with airplane development activities and enables airplanes to be brought to market more quickly than otherwise possible. 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.

Worldwide, airplane sales are generally conducted in U.S. dollars. Fluctuating exchange rates affect the profit potential of our major competitors, all of whom have significant costs in other currencies. Changes in value of the U.S. dollar relative to their local currencies impact competitors’ revenues and profits. Many competitors are expected to benefit from the strong U.S. dollar experienced in 2016 and ongoing improvements in efficiency, which may result in funding product development, gaining market share through pricing and/or improving earnings.

We are focused on improving our processes and continuing cost-reduction efforts. We continue to leverage our extensive customer support services network which includes aviation support, spare parts, training, maintenance documents and technical advice for airlines throughout the world. This enables us to provide a high level of customer satisfaction and productivity. These efforts enhance our ability to pursue pricing strategies that enable us to price competitively.

Results of Operations

(Dollars in millions)

Years ended December 31,	2016		2015		2014	
Revenues	$65,069		$66,048		$59,990	
% of total company revenues	69	%	69	%	66	%
Earnings from operations	$3,130		$5,157		$6,411	
Operating margins	4.8	%	7.8	%	10.7	%
Research and development	$3,755		$2,340		$1,881	
Contractual backlog	$416,198		$431,408		$440,118	
Unobligated backlog	$160		$216		$360	

Revenues

Commercial Airplanes revenues decreased by $979 million or 1% in 2016 compared with 2015 primarily due to lower deliveries. Revenues increased by $6,058 million or 10% in 2015 compared with 2014 primarily due to higher new airplane deliveries and mix.

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Commercial Airplanes deliveries as of December 31 were as follows:

	737	*	747	†	767	777	787	Total
2016								
Cumulative deliveries	6,203		1,528		1,096	1,460	500	
Deliveries	490	(19)	9	(3)	13	99	137	748
2015								
Cumulative deliveries	5,713		1,519		1,083	1,361	363	
Deliveries	495	(15)	18	(3)	16	98	135	762
2014								
Cumulative deliveries	5,218		1,501		1,067	1,263	228	
Deliveries	485	(15)	19	(3)	6	99	114	723

* Intercompany deliveries identified by parentheses

Earnings From Operations

Earnings from operations in 2016 decreased by $2,027 million compared with the same period in 2015. The decrease in earnings and operating margins is primarily due to higher research and development costs of $1,415 million, delivery mix and higher reach-forward losses on the 747 program of $1,258 million compared with $885 million in 2015. Research and development expense in 2016 reflect the reclassification from inventory to research and development expense of $1,235 million related to the fourth and fifth 787 flight test aircraft and higher planned spending related to the 777X program. Earnings include reach-forward losses related to the KC-46A Tanker of $772 million recorded in 2016 compared with $513 million in 2015.

Earnings from operations in 2015 decreased by $1,254 million or 20% compared with 2014 primarily due to higher reach-forward losses of $1,160 million and higher research and development spending of $459 million, largely on the 777X, which more than offset higher new airplane deliveries and mix. During the fourth quarter of 2015 we recorded a charge of $885 million to recognize a reach-forward loss on the 747 program. In addition, we recorded reach-forward losses on the KC-46A Tanker contract of $513 million in the second quarter of 2015 and $238 million in the second quarter of 2014. Operating margins in 2015 decreased primarily due to additional reach-forward losses, higher research and development expense and the dilutive impact of 787 volume and mix.

Backlog

Firm backlog represents orders for products and services 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 customers receiving approval from their board of directors, shareholders or government and 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. Firm orders exclude options. A number of our customers may have contractual remedies that may be implicated by program delays. We address customer claims and requests for other contractual relief as they arise. However, once orders are included in firm backlog, orders remain in backlog until canceled or fulfilled, although the value of orders is adjusted as changes to price and schedule are agreed to with customers.

The decrease in backlog during 2016 and 2015 was due to deliveries in excess of net orders.

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

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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.

	Program					
	737	747*	767	777	777X	787
2016						
Program accounting quantities	9,000	1,555	1,159	1,625	**	1,300
Undelivered units under firm orders	4,452	28	93	136	306	700
Cumulative firm orders	10,655	1,556	1,189	1,596	306	1,200
2015						
Program accounting quantities	8,400	1,574	1,147	1,650	**	1,300
Undelivered units under firm orders	4,392	20	80	218	306	779
Cumulative firm orders	10,105	1,539	1,163	1,579	306	1,142
2014						
Program accounting quantities	7,800	1,574	1,113	1,600	**	1,300
Undelivered units under firm orders	4,299	36	47	278	286	843
Cumulative firm orders	9,517	1,537	1,114	1,541	286	1,071

* At December 31, 2016, the 747 accounting quantity has 26 undelivered aircraft, including 9 that have not been sold or may be remarketed.

** The accounting quantity for the 777X will be determined in the year of first airplane delivery, targeted for 2020.

Program Highlights

737 Program The accounting quantity for the 737 program increased by 600 units during 2016 due to the program's normal progress of obtaining additional orders and delivering airplanes. We are currently producing at a rate of 42 per month and plan to increase to 47 per month in 2017. We plan to further increase the rate to 52 per month in 2018 and to 57 per month in 2019. First delivery of the 737 MAX is expected in 2017.

747 Program During the fourth quarter of 2016 we received an order for 14 new aircraft. We are currently producing at rate of 0.5 aircraft per month having reduced the rate from 1.0 per month in September 2016. Lower-than-expected demand for large commercial passenger and freighter aircraft and slower-than-expected growth of global freight traffic have continued to drive market uncertainties, pricing pressures and fewer orders than anticipated. As a result, during 2016, we canceled previous plans to return to a production rate of 1.0 aircraft per month beginning in 2019, resulting in a reduction in the program accounting quantity from 1,574 to 1,555 aircraft. This reduction in the program accounting quantity, together with lower anticipated revenues from future sales and higher costs associated with producing fewer airplanes, resulted

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in a reach-forward loss of $1,188 million in the second quarter of 2016. We previously recognized reach-forward losses of $885 million in 2015 and $70 million during the first quarter of 2016 related to our prior decision to reduce the production rate to 0.5 per month and anticipating lower estimated revenue from future sales due to ongoing pricing and market pressures. We continue to have a number of completed aircraft in inventory as well as unsold production positions and we remain focused on obtaining additional orders and implementing cost-reduction efforts. If we are unable to obtain sufficient orders and/or market, production and other risks cannot be mitigated, we could record additional losses that may be material, and it is reasonably possible that we could decide to end production of the 747.
767 Program The accounting quantity for the 767 program increased by 12 units during 2016 due to the program's normal progress of obtaining additional orders and delivering airplanes. The 767 assembly line includes a 767 derivative to support the tanker program. We increased the combined tanker and commercial production rate from 1.5 per month to 2 per month in April 2016. We plan to further increase the rate to 2.5 per month in the fourth quarter of 2017.
777 Program We produced at a rate of 8.3 per month during 2016. We implemented a planned production rate decrease to 7 per month at the beginning of 2017. In addition, we announced in December 2016 that, due to lower than anticipated 777 orders, we plan to further reduce the rate to 5 per month in the second half of 2017. We reduced the program accounting quantity from 1,650 to 1,625 aircraft, reflecting recent order activity and planned production rates.
In the fourth quarter of 2013, we launched the 777X, which features a new composite wing, new engines and folding wing-tips. The 777X will have a separate program accounting quantity, which will be determined in the year of first airplane delivery, targeted for 2020.
787 Program During 2016, the program received 58 net new orders and increased the production rate from 10 per month to a rate of 12 per month. We are planning a further rate increase to 14 per month by the end of the decade. First delivery of the 787-10 derivative aircraft is targeted for 2018. The accounting quantity of 1,300 units remains unchanged.
We remain focused on improving productivity and obtaining additional orders to support planned production. We continue to monitor and address challenges associated with aircraft production and assembly, including management of our manufacturing operations and extended global supply chain, completion and integration of traveled work, as well as completing and delivering early build aircraft.
During 2009, we concluded that the first three flight-test 787 aircraft could not be sold as previously anticipated due to the inordinate amount of rework and unique and extensive modifications made to those aircraft. As a result, costs associated with those airplanes were included in research and development expense. We produced the fourth and fifth flight test aircraft in 2009 but have been unable to sell them at acceptable prices. The aircraft have been used extensively for flight and ground testing and we intended to begin to refurbish the aircraft in early 2017 for commercial sale based on sales activity and market interest. However, during the second quarter of 2016 we determined that firm orders for these aircraft prior to refurbishment were now unlikely, and that the Company would not invest company funds for their refurbishment. The Company also determined the costs to refurbish the aircraft at a future date would be prohibitively expensive. We therefore determined that the aircraft were not commercially saleable, and accordingly, costs of $1,235 million associated with these aircraft were reclassified from 787 program inventory to research and development expense during the second quarter of 2016. We have firm orders for the five remaining undelivered early build aircraft and plan to complete retrofitting them by the end of 2017.
The combination of production challenges, change incorporation on early build aircraft, schedule delays, customer and supplier impacts and changes to price escalation factors has created significant pressure on program profitability and we continue to have near breakeven gross margins. We are continuing to monitor wide-body demand and if sufficient orders do not materialize during the next several quarters we

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may consider appropriate adjustments to the planned production rate increase. If risks related to these challenges, together with risks associated with the planned production rate and productivity improvements, supply chain management or introducing or manufacturing the 787-10 derivative as scheduled cannot be mitigated, the program could face further pressures on program profitability and/or a reach-forward loss. We continue to implement mitigation plans and cost-reduction efforts to improve program profitability and address program risks.

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 1.5% 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.

	Go-ahead	Initial Delivery
737 MAX	2011	2017
787-10	2013	2018
777X	2013	2020

Reflects models in development during 2016

We launched the 787-10 in June 2013 and the 777X in November 2013.

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 thousands of 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. In addition, the introduction of new aircraft and derivatives, such as the 787-10, 737 MAX and 777X, involves increased risks associated with meeting development, production and certification schedules. 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, flight test and certification schedules, costs, schedule and demand for new airplanes and derivatives and status of customer claims, supplier 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.

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Defense, Space & Security

Business Environment and Trends

United States Government Defense Environment Overview The new U.S. administration and key members of the 115th Congress have expressed a general desire to reverse the effects of the budgetary reductions of the past several years. However, the Budget Control Act of 2011 (The Act), which mandated limits on U.S. government discretionary spending, remains in effect through the 2021 government fiscal year causing budget uncertainty and continued risk of future sequestration cuts.

In addition, there continues to be uncertainty with respect to program-level appropriations for the U.S. Department of Defense (U.S. DoD) and other government agencies, including the National Aeronautics and Space Administration (NASA), within the overall budgetary framework described above. Future budget cuts or investment priority changes could result in reductions, cancellations and/or delays of existing contracts or programs. Any of these impacts could have a material effect on the results of the Company’s operations, financial position and/or cash flows.

Funding timeliness also remains a risk as the federal government is currently operating under a continuing resolution that expires on April 28, 2017. If Congress is unable to pass appropriations bills before the continuing resolution expires, a government shutdown could result which may have impacts above and beyond those resulting from budget cuts, sequestration impacts or program-level appropriations. For example, requirements to furlough employees in the U.S. DoD or other government agencies could result in payment delays, impair our ability to perform work on existing contracts, and/or negatively impact future orders.

International Environment Overview The international 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 international opportunities across Asia, Europe and the Middle East given the diverse regional threats.

Results of Operations

(Dollars in millions)

Years ended December 31,	2016	2015	2014
Revenues	$29,498	$30,388	$30,881
% of total company revenues	31 %	32 %	34 %
Earnings from operations	$3,008	$3,274	$3,133
Operating margins	10.2 %	10.8 %	10.1 %
Contractual backlog	$42,079	$45,187	$46,974
Unobligated backlog	$15,055	$12,488	$14,939

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 year, or year-to-year comparisons of revenues, earnings and backlog 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.

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

Years ended December 31,	2016	2015	2014
F/A-18 Models	25	35	44
F-15 Models	15	12	14
C-17 Globemaster III	4	5	7
CH-47 Chinook (New)	25	41	54
CH-47 Chinook (Renewed)	25	16	
AH-64 Apache (New)	31	23	45
AH-64 Apache (Remanufactured)	34	38	37
P-8 Models	18	14	11
AEW&C		1	3
C-40A	1	1	1
Total	178	186	216

Revenues

BDS revenues in 2016 decreased by $890 million compared with the same period in 2015 due to lower revenues of $909 million and $705 million in the BMA and N&SS segments, partially offset by higher revenues of $724 million in the GS&S segment.

BDS revenues in 2015 decreased by $493 million compared with 2014 primarily due to lower revenues in the GS&S and N&SS segments.

Earnings From Operations

BDS earnings from operations in 2016 decreased by $266 million compared with the same period in 2015 due to lower earnings of $233 million and $80 million in the N&SS and BMA segments, partially offset by higher earnings of $47 million in the GS&S segment. Included above are net unfavorable cumulative contract catch-up adjustments, which were $429 million higher in 2016 compared with 2015, primarily reflecting the absence of favorable F-15 program adjustments recorded in 2015 and the charge of $162 million on the Commercial Crew program recorded at N&SS during 2016.

BDS earnings from operations in 2015 increased by $141 million compared with 2014 due to higher earnings in all three segments. Included above are net favorable cumulative contract catch-up adjustments, which were $49 million lower in 2015 compared with 2014, primarily reflecting higher charges of $135 million on the USAF KC-46A Tanker contract recorded at BMA which more than offset higher favorable adjustments in the GS&S segment.

During 2016, 2015 and 2014, BDS earnings from operations include reach-forward losses of $356 million, $322 million and $187 million on the KC-46A Tanker program.

Backlog

Total backlog is comprised of contractual backlog, which represents work we are on contract to perform for which we have received funding, and unobligated backlog, which represents work we are on contract to perform for which funding has not yet been authorized and appropriated. BDS total backlog was $57,134 million at December 31, 2016, reflecting a decrease of 1% from December 31, 2015. BDS total backlog was $57,675 million at December 31, 2015, reflecting a decrease of 7% from December 31, 2014. For further details on the changes between periods, refer to the discussions of the individual segments below.

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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 (GMD), Proprietary and Space Launch System (SLS) programs.

Some of our development programs are contracted on a fixed-price basis. Many of these 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. These programs have risk for reach-forward losses if our estimated costs exceed our estimated contract revenues. Examples of significant fixed-price development programs include Saudi F-15, USAF KC-46A Tanker, Commercial Crew and commercial and military satellites.

Boeing Military Aircraft

Results of Operations

(Dollars in millions)

Years ended December 31,	2016	2015	2014
Revenues	$12,515	$13,424	$13,410
% of total company revenues	13 %	14 %	15 %
Earnings from operations	$1,231	$1,311	$1,294
Operating margins	9.8 %	9.8 %	9.6 %
Contractual backlog	$21,415	$19,947	$21,078
Unobligated backlog	$4,026	$7,141	$7,962

Revenues

BMA revenues in 2016 decreased by $909 million compared with 2015 primarily due to lower revenues of $973 million related to fewer C-17 deliveries and timing and mix of deliveries on the CH-47 Chinook and F/A-18 programs.

BMA revenues in 2015 increased by $14 million compared with 2014 primarily due to higher revenues of $1,131 million from a cumulative catch-up adjustment recorded in the third quarter of 2015 on the F-15 program due to completion of contract negotiations, higher milestone revenue on the USAF KC-46A Tanker program, and higher deliveries and mix on the CH-47 Chinook program. The increase was partially offset by fewer deliveries and mix on the F/A-18, Apache and V-22 programs.

Earnings From Operations

BMA earnings from operations in 2016 decreased by $80 million compared with 2015 primarily due to lower volume and mix on the CH-47 Chinook, and C-17, partially offset by higher volume and mix on the Apache and P-8 programs. BMA recorded charges of $356 million in 2016 compared with $322 million in 2015 related to the USAF KC-46A Tanker contract. Net unfavorable cumulative contract catch-up adjustments were $253 million higher in 2016 than in 2015 primarily driven by the absence of favorable

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F-15 program adjustments recorded in 2015 and higher USAF KC-46A Tanker charges recorded in 2016.

BMA earnings from operations in 2015 increased by $17 million compared with 2014 primarily due to C-17 charges in 2014, higher CH-47 Chinook deliveries in 2015 and higher earnings on the F-15 program, primarily due to a cumulative catch-up adjustment recorded in the third quarter of 2015. These increases were partially offset by higher charges of $135 million on the USAF KC-46A Tanker contract and lower earnings on proprietary programs. BMA recorded charges of $322 million in the second quarter of 2015 and $187 million in the second quarter of 2014 related to the USAF KC-46A Tanker contract. In addition, BMA recorded a charge of $48 million in the first quarter of 2014 to write-off inventory and accrue termination liabilities as a result of our decision to produce three fewer C-17 aircraft in 2015 than previously planned. Net favorable cumulative contract catch-up adjustments were $96 million lower in 2015 than in 2014 primarily driven by the USAF KC-46A Tanker charges and lower favorable F/A-18 adjustments, partially offset by higher favorable F-15 program adjustments.

During 2016, 2015 and 2014, BMA earnings from operations include reach-forward losses of $356 million, $322 million and $187 million on the KC-46A Tanker program.

Backlog

BMA total backlog of $25,441 million at December 31, 2016 decreased by 6% from December 31, 2015, reflecting revenue recognized on contracts awarded in prior years, partially offset by current year contract awards for the P-8, Apache, CH-47 Chinook, and weapons programs.

BMA total backlog at December 31, 2015 was $27,088 million, a decrease of 7% reflecting revenue recognized on contracts awarded in prior years, partially offset by contract awards for the F-15, Apache, C-17 and F/A-18 programs.

Additional Considerations

F/A-18 See the discussion of the F/A-18 program in Note 11 to our Consolidated Financial Statements.

KC-46A Tanker See the discussion of the USAF KC-46A Tanker program on page 24.

Network & Space Systems

Results of Operations

(Dollars in millions)

Years ended December 31,	2016	2015	2014
Revenues	$7,046	$7,751	$8,003
% of total company revenues	7 %	8 %	9 %
Earnings from operations	$493	$726	$698
Operating margins	7.0 %	9.4 %	8.7 %
Contractual backlog	$5,054	$7,368	$8,935
Unobligated backlog	$8,293	$4,979	$5,987

Revenues

N&SS revenues in 2016 decreased by $705 million compared with 2015 primarily due to lower revenue of $838 million related to the Commercial Crew program, lower milestone revenue on government satellite programs, and lower volume on proprietary programs. These decreases were partially offset by higher volume on the SLS program.

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N&SS revenues in 2015 decreased by $252 million compared with 2014 primarily due to lower revenue of $1,061 million, primarily on satellite and proprietary programs and volume and mix of sales to our United Launch Alliance (ULA) joint venture, partially offset by higher volume on the Commercial Crew program.

New-build satellite deliveries were as follows:

Years ended December 31,	2016	2015	2014
Commercial and civil satellites	5	3	5
Military satellites	2	1	

Earnings From Operations

N&SS earnings from operations in 2016 decreased by $233 million compared with 2015 primarily due to a charge of $162 million during the third quarter of 2016 and lower volume on the Commercial Crew program. Net unfavorable cumulative contract catch-up adjustments were $186 million higher in 2016 than 2015 primarily reflecting the charge on the Commercial Crew program during 2016. These decreases were partially offset by higher equity earnings.

N&SS earnings from operations in 2015 increased by $28 million compared with 2014 primarily due to higher earnings of $83 million from improved performance on several Electronic and Information Solutions (E&IS) programs partially offset by lower performance on a development program. Net favorable cumulative contract catch-up adjustments were $10 million lower in 2015 than in 2014 primarily due to higher unfavorable adjustments on commercial satellite programs.

N&SS earnings from operations include equity earnings of $255 million, $183 million and $211 million primarily from our ULA joint venture in 2016, 2015 and 2014, respectively.

Backlog

N&SS total backlog of $13,347 million at December 31, 2016 increased by 8% compared to December 31, 2015. The increase was due to adjustments recorded in 2016 related to backlog in prior years. Current year contract awards for missile defense, SLS, and government satellite programs were more than offset by revenue recognized on contracts awarded in prior years.

N&SS total backlog was $12,347 million at December 31, 2015, reflecting a decrease of 17% from December 31, 2014 primarily due to revenue recognized on contracts awarded in prior years, partially offset by current year contract awards including orders from NASA for International Space Station engineering support and Post Certification Mission 1 on the Commercial Crew program.

Additional Considerations

United Launch Alliance See the discussion of Indemnifications to ULA and Financing Commitments in Notes 6, 11, and 12 to our Consolidated Financial Statements.

Sea Launch See the discussion of the Sea Launch receivables in Note 10 to our Consolidated Financial Statements.

Commercial Crew See the discussion of Fixed-Price Development Contracts in Note 8 to our Consolidated Financial Statements.

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Global Services & Support
Results of Operations
(Dollars in millions)

Years ended December 31,	2016		2015		2014	
Revenues	$9,937		$9,213		$9,468	
% of total company revenues	11	%	10	%	10	%
Earnings from operations	$1,284		$1,237		$1,141	
Operating margins	12.9	%	13.4	%	12.1	%
Contractual backlog	$15,610		$17,872		$16,961	
Unobligated backlog	$2,736		$368		$990	

Revenues

GS&S revenues in 2016 increased by $724 million compared with the same period in 2015 primarily due to higher volume in several Aircraft Modernization & Sustainment (AM&S), Training Systems & Government Services (TSGS), and Integrated Logistics (IL) programs.

GS&S revenues in 2015 decreased by $255 million compared with 2014 primarily due to final Airborne Early Warning and Control (AEW&C) deliveries and lower volume in several TSGS programs, partially offset by higher volume on several IL programs.

Earnings From Operations

GS&S earnings from operations in 2016 increased by $47 million compared with the same period in 2015 primarily due to higher volume and mix across the segment partially offset by lower performance. The impact of cumulative contract catch-up adjustments was not significant in 2016.

GS&S earnings from operations in 2015 increased by $96 million compared with 2014 primarily due to improved performance across the segment. Net favorable cumulative contract catch-up adjustments were $57 million higher in 2015 than in 2014 primarily due to favorable F-15 program adjustments.

Backlog

GS&S total backlog has remained consistent at $18,346 million, $18,240 million and $17,951 million at December 31, 2016, 2015 and 2014, respectively.

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Boeing Capital

Business Environment and Trends

BCC's gross customer financing and investment portfolio at December 31, 2016 totaled $4,115 million. A substantial portion of BCC's portfolio is related to customers that we believe 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 $1,376 million and $586 million during 2016 and 2015. While we may be required to fund a number of new aircraft deliveries in 2017 and/or provide refinancing for existing bridge debt, we expect alternative financing will be available at reasonable prices from broad and globally diverse sources. However, a number of factors could cause BCC's new business volume to increase further, including if the Export-Import Bank of the United States continues to be unable to, or does not, approve new financing transactions.

Aircraft values and lease rates are impacted by the number and type of aircraft that are currently out of service. Approximately 2,200 western-built commercial jet aircraft (8.8% of current world fleet) were parked at the end of 2016, including both in-production and out-of-production aircraft types. Of these parked aircraft, approximately 7% are not expected to return to service. At the end of 2015 and 2014, 9.5% and 9.8% 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.

Results of Operations

(Dollars in millions)

Years ended December 31,	2016	2015	2014
Revenues	$298	$413	$416
Earnings from operations	$59	$50	$92
Operating margins	20 %	12 %	22 %

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 2016 decreased by $115 million compared with 2015 primarily due to lower lease income, and lower end of lease settlement payments. BCC's revenues in 2015 were consistent with 2014.

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 2016 increased by $9 million primarily due to lower asset impairment expense which more than offset lower revenues. Earnings from operations in 2015 decreased by $42 million compared with 2014 primarily due to higher asset impairment expense.

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Financial Position

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

(Dollars in millions)	2016	2015
Customer financing and investment portfolio, net	$4,109	$3,449
Other assets, primarily cash and short-term investments	346	480
Total assets	$4,455	$3,929
Other liabilities, primarily deferred income taxes	$1,007	$1,099
Debt, including intercompany loans	2,864	2,355
Equity	584	475
Total liabilities and equity	$4,455	$3,929
Debt-to-equity ratio	4.9-to-1	5.0-to-1

BCC's customer financing and investment portfolio at December 31, 2016 increased from December 31, 2015, primarily due to new volume of $1,376 million partially offset by note payoffs, asset sales and portfolio run-off.

At December 31, 2016 and 2015, BCC had $6 million and $49 million of assets that were held for sale or re-lease. Additionally, aircraft subject to leases with a carrying value of approximately $46 million are scheduled to be returned off lease during 2017. We are seeking to remarket these aircraft or have the leases extended.

BCC enters into certain transactions with Boeing, 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,	2016	2015	2014
Net earnings	$4,895	$5,176	$5,446
Non-cash items	2,559	2,392	2,515
Changes in working capital	3,045	1,795	897
Net cash provided by operating activities	10,499	9,363	8,858
Net cash (used)/provided by investing activities	(3,380)	(1,846)	2,467
Net cash used by financing activities	(9,587)	(7,920)	(8,593)
Effect of exchange rate changes on cash and cash equivalents	(33)	(28)	(87)
Net (decrease)/increase in cash and cash equivalents	(2,501)	(431)	2,645
Cash and cash equivalents at beginning of year	11,302	11,733	9,088
Cash and cash equivalents at end of period	$8,801	$11,302	$11,733

Operating Activities Net cash provided by operating activities was $10.5 billion during 2016, compared with $9.4 billion during 2015 and $8.9 billion in 2014. The increase of $1.1 billion in 2016 was primarily

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due to lower expenditures on commercial airplane program inventory, primarily 787. The increase of $0.5 billion in 2015 was primarily due to lower inventory growth, partially offset by lower receipts of advances and progress billings. Advances and progress billings decreased by $1.9 billion in 2016 and increased by $0.4 billion in 2015 and $6.9 billion in 2014. Discretionary contributions to our pension plans were $0.1 billion in 2016 and insignificant in 2015 compared with $0.8 billion in 2014.

Investing Activities Cash used by investing activities during 2016 and 2015 was $3.4 billion and $1.8 billion, largely due to capital expenditures. Cash provided by investing activities during 2014 was $2.5 billion, largely due to changes in investments in time deposits. Net contributions to investments were $0.5 billion in 2016 compared with net proceeds from investments of $0.6 billion in 2015 and $4.8 billion in 2014. Acquisitions, net of cash acquired, during 2016 was $0.3 billion compared with an insignificant amount in 2015 and $0.2 billion in 2014. In 2016, capital expenditures totaled $2.6 billion, up from $2.5 billion in 2015 and $2.2 billion in 2014. We expect capital expenditures in 2017 to be lower than 2016.

Financing Activities Cash used by financing activities was $9.6 billion during 2016, an increase of $1.7 billion compared with 2015 primarily due to net borrowings in 2015 as well as higher share repurchases and dividend payments in 2016. Cash used by financing activities was $7.9 billion during 2015, a decrease of $0.7 billion compared with 2014 primarily due to higher new borrowings in 2015 of $0.8 billion and lower repayments of debt and distribution rights of $0.9 billion in 2015, which more than offset higher share repurchases of $0.8 billion and higher dividend payments of $0.4 billion.

During 2016, we issued $1.3 billion and repaid $1.4 billion of debt. At December 31, 2016 and 2015 the recorded balance of debt was $10.0 billion and $10.0 billion of which $0.4 billion and $1.2 billion was classified as short-term. At December 31, 2016 and 2015 this included $2.9 billion and $2.4 billion of debt attributable to BCC, of which $0.1 billion and $0.5 billion were classified as short-term.

During 2016 and 2015 we repurchased 55.1 million and 46.7 million shares totaling $7.0 billion and $6.8 billion through our open market share repurchase program. In 2016 and 2015, we had 0.7 million shares transferred to us from employees for tax withholdings. At December 31, 2016, the amount available under the share repurchase plan, announced on December 12, 2016, totaled $14 billion.

Capital Resources We have substantial borrowing capacity. Any future borrowings may affect our credit ratings and are subject to various debt covenants as described below. We have a commercial paper program that continues to serve as a significant potential source of short-term liquidity. Throughout 2016 and at December 31, 2016, we had no commercial paper borrowings outstanding. Currently, we have $5.0 billion of unused borrowing capacity on revolving credit line agreements. We anticipate that these credit lines will primarily serve as backup liquidity to support our general corporate borrowing needs.

Financing commitments totaled $14.8 billion and $16.3 billion at December 31, 2016 and 2015. 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. In addition, many of our non-U.S. customers finance aircraft purchases through the Export-Import Bank of the United States. Following the expiration of the bank’s charter on June 30, 2015, the bank’s charter was reauthorized in December 2015. The bank is now authorized through September 30, 2019. However, until the U.S. Senate confirms members sufficient to reconstitute a quorum of the bank’s board of directors, the bank will not be able to approve any transaction totaling more than $10 million. As a result, we may fund additional commitments and/or enter into new financing arrangements with customers.

In the event we require additional funding to support strategic business opportunities, our commercial aircraft financing commitments, unfavorable resolution of litigation or other loss contingencies, or other business requirements, we expect to meet increased funding requirements by issuing commercial paper or term debt. We believe our ability to access external capital resources should be sufficient to satisfy

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existing short-term and long-term commitments and plans, and also to provide adequate financial flexibility to take advantage of potential strategic business opportunities should they arise within the next year. However, there can be no assurance of the cost or availability of future borrowings, if any, under our commercial paper program, in the debt markets or our credit facilities.

At December 31, 2016 and 2015, our pension plans were $20.1 billion and $17.9 billion underfunded as measured under GAAP. On an Employee Retirement Income Security Act (ERISA) basis our plans are more than 100% funded at December 31, 2016 with minimal required contributions in 2017. We expect to make contributions to our plans of approximately $0.5 billion in 2017. We may be required to make higher contributions to our pension plans in future years.

At December 31, 2016, 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). When considering debt covenants, we continue to have substantial borrowing capacity.

Contractual Obligations

The following table summarizes our known obligations to make future payments pursuant to certain contracts as of December 31, 2016, and the estimated timing thereof.

(Dollars in millions)	Total	Less than 1 year	1-3 years	3-5 years	After 5 years
Long-term debt (including current portion)	$9,945	$327	$1,911	$1,840	$5,867
Interest on debt[1]	5,656	459	872	691	3,634
Pension and other postretirement cash requirements	15,476	779	3,412	3,969	7,316
Capital lease obligations	144	60	64	13	7
Operating lease obligations	1,494	239	400	235	620
Purchase obligations not recorded on the Consolidated Statements of Financial Position	107,564	38,458	31,381	20,478	17,247
Purchase obligations recorded on the Consolidated Statements of Financial Position	17,415	16,652	746	3	14
Total contractual obligations [2]	$157,694	$56,974	$38,786	$27,229	$34,705

(1) Includes interest on variable rate debt calculated based on interest rates at December 31, 2016. Variable rate debt was 3% of our total debt at December 31, 2016.

(2) Excludes income tax matters. As of December 31, 2016, our net liability for income taxes payable, including uncertain tax positions of $1,557 million, was $1,169 million. For further discussion of income taxes, see Note 4 to our Consolidated Financial Statements. We are not able to reasonably estimate the timing of future cash flows related to uncertain tax positions.

Pension and Other Postretirement Benefits Pension cash requirements are based on an estimate of our minimum funding requirements, pursuant to 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.

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.

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Purchase Obligations Not Recorded on the Consolidated Statements of Financial Position Production related 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, 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 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 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.

Industrial Participation Agreements We have entered into various industrial participation agreements with certain customers outside of the U.S. to facilitate economic flow back and/or technology 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 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. We do not commit to industrial participation agreements unless a contract for sale of our products or services is signed. In certain cases, penalties could be imposed if we do not meet our industrial participation commitments. During 2016, we incurred no such penalties. As of December 31, 2016, we have outstanding industrial participation agreements totaling $18.1 billion that extend through 2029. 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 foreign supplier must have sufficient capability to meet our requirements and must be competitive in cost, quality and schedule.

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Commercial Commitments

The following table summarizes our commercial commitments outstanding as of December 31, 2016.

(Dollars in millions)	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	$4,701	$3,051	$805	$3	$842
Commercial aircraft financing commitments	14,847	2,432	6,874	3,493	2,048
Total commercial commitments	$19,548	$5,483	$7,679	$3,496	$2,890

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. Based on historical experience, we anticipate that we will not be required to fund a significant portion of our financing commitments. However, there can be no assurances that we will not be required to fund greater amounts than historically required, particularly if the Export-Import Bank of the United States continues to be unable to, or does not, provide new financing support. See Note 11 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 20 to our Consolidated Financial Statements.

Environmental Remediation We are involved with various environmental remediation activities and have recorded a liability of $562 million at December 31, 2016. For additional information, see Note 11 to our Consolidated Financial Statements.

Off-Balance Sheet Arrangements

We are a party to certain off-balance sheet arrangements including certain guarantees. For discussion of these arrangements, see Note 12 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 Generally Accepted Accounting Principles in the United States of America (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 impact of certain pension and other postretirement benefit expenses that are not allocated to business segments. Pension costs, comprising service and prior service costs computed in accordance with GAAP are allocated to Commercial Airplanes. Pension costs allocated to BDS segments 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

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based on benefits paid. The unallocated pension costs recognized in earnings during 2016 was a benefit of $217 million compared with an expense of $421 million and $1,469 million in 2015 and 2014. The 2016 benefit reflects the difference between the higher segment allocation compared to the U.S. GAAP net periodic pension costs recognized in earnings in the current period, as well as lower settlements and curtailments. The 2015 unallocated expense is lower than 2014, primarily due to the lower amortization of pension costs capitalized as inventory in prior years as well as lower settlements and curtailments. For further discussion of pension and other postretirement costs see the Management's Discussion and Analysis on pages 21 and 22 of this Form 10-K and see Note 21 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,	2016	2015	2014
Revenues	$94,571	$96,114	$90,762
Earnings from operations, as reported	$5,834	$7,443	$7,473
Operating margins	6.2 %	7.7 %	8.2 %
Unallocated pension (income)/expense	($217)	$421	$1,469
Unallocated other postretirement benefit income	($153)	($123)	($82)
Unallocated pension and other postretirement benefit (income)/expense	($370)	$298	$1,387
Core operating earnings (non-GAAP)	$5,464	$7,741	$8,860
Core operating margins (non-GAAP)	5.8 %	8.1 %	9.8 %
Diluted earnings per share, as reported	$7.61	$7.44	$7.38
Unallocated pension (income)/expense	($0.33)	$0.61	$1.99
Unallocated other postretirement benefit income	($0.24)	($0.18)	($0.11)
Provision for deferred income taxes on adjustments [1]	$0.20	($0.15)	($0.66)
Core earnings per share (non-GAAP)	$7.24	$7.72	$8.60
Weighted average diluted shares (in millions)	643.8	696.1	738.0

[1] The income tax impact is calculated using the tax rate in effect for the non-GAAP adjustments.

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Critical Accounting Policies

Contract Accounting

Contract accounting is used to determine revenue, cost of sales, and profit predominantly by our BDS business. Contract accounting involves a judgmental process of estimating the total sales and costs for each contract, which results in the development of estimated cost of sales percentages. For each contract, the amount reported as cost of sales is determined by applying the estimated cost of sales percentage to the amount of revenue recognized.

Due to the size, duration and nature of many of our contracts, the estimation of total sales and costs through completion is complicated and subject to many variables. Total contract 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 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 contract 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, asset utilization, and anticipated labor agreements. Revenue and cost estimates for all significant contracts are reviewed and reassessed quarterly. Changes in these estimates could result in recognition of cumulative catch-up adjustments to the contract'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, 2016 and 2015, net unfavorable cumulative catch-up adjustments, including reach-forward losses, across all contracts decreased Earnings from operations by $912 million and $224 million. For the year ended December 31, 2014 net favorable cumulative catch-up adjustments, including reach-forward losses, across all contracts increased Earnings from operations by $100 million.

Due to the significance of judgment in the estimation process described above, it is likely that materially different cost of sales amounts 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 margin for all contracts in BDS for all of 2016 had been estimated to be higher or lower by 1%, it would have increased or decreased pre-tax income for the year by approximately $295 million. In addition, a number of our fixed price development contracts are in a reach-forward loss position. Changes to estimated losses are recorded immediately in earnings.

Program Accounting

Program accounting requires the demonstrated ability to reliably estimate the relationship of sales to costs 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 of the revenue and cost of existing and anticipated contracts. For each program, the amount reported as cost of sales is determined by applying the estimated cost of sales percentage for the total remaining program to the amount of sales recognized for airplanes delivered and accepted by the customer.

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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, 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. Changes in estimates are normally recognized on a prospective basis; when estimated costs to complete a program exceed estimated revenues from undelivered units in the accounting quantity, a loss provision is recorded in the current period for the estimated loss on all undelivered units in the accounting quantity.

The program method of accounting allocates tooling and other non-recurring and production costs over the accounting quantity for each program. Because of the higher unit production costs experienced at the beginning of a new program and substantial investment required for initial tooling and other non-recurring costs, new commercial aircraft programs, such as the 787 and 777X programs, typically have lower initial margins than established programs. In addition, actual costs incurred for earlier units in excess of the estimated average cost of all units in the program accounting quantity are included within program inventory as deferred production costs. Deferred production, unamortized tooling and other non-recurring costs are expected to be fully recovered when all units in the accounting quantity are delivered as the expected unit cost for later deliveries is below the estimated average cost as learning curve and other improvements are realized.

Due to the significance of judgment in the estimation process described above, it is reasonably possible that changes in underlying circumstances or assumptions could have a material effect on program gross margins. If the combined gross margin percentages for our commercial airplane programs had been estimated to be 1% higher or lower it would have a similar effect on the Commercial Airplane segment’s operating margins. For the year ended December 31, 2016, a 1% increase or decrease in operating margins for our Commercial Airplane segment would have a $650 million impact on operating earnings.

The 747 program was in a reach-forward loss position at December 31, 2016 and 2015. Deliveries of 747s in 2016 were recorded at a zero margin and absent changes in estimated revenues or costs, future 747 deliveries will be recorded at zero margin. Reductions to the estimated loss in subsequent periods are spread over all undelivered units in the accounting quantity, whereas increases to the estimated loss are recorded immediately as an additional reach-forward loss. It is reasonably possible that we could make a decision to terminate the 747 program, which may result in additional reach-forward losses which may be material. The 787 program had near breakeven margins during 2016. If we are unable to mitigate risks associated with the 747 and 787 programs, or if our assumptions with respect to items such as pricing, cost or future production rates were to change, we could be required to record reach-forward losses which could have a material effect on our reported results.

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Goodwill and Indefinite-Lived Intangible Impairments

We test goodwill for impairment by performing a qualitative assessment or using a two-step impairment process. 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 operations. 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 related operations, the two-step impairment process is then performed; otherwise, no further testing is required. For operations where the two-step impairment process is used, we first compare the book value of net assets to the fair value of the related operations. If the fair value is determined to be less than book value, a second step is performed to compute the amount of the impairment. In this process, a fair value for goodwill is estimated, based in part on the fair value of the operations, and is compared to its carrying value. The shortfall of the fair value below carrying value represents the amount of goodwill impairment.

We estimate the fair values of the related operations using discounted cash flows. Forecasts of future cash flows are based on our best estimate of future sales and operating costs, based primarily on existing firm orders, expected future orders, 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 assessment of goodwill as of April 1, 2016 and determined that there is no impairment of goodwill. As of December 31, 2016, we estimated that the fair value of each reporting unit significantly exceeded its corresponding carrying value. Changes in our forecasts, or decreases in the value of our common stock could cause book values of certain operations to exceed their fair values which may result in goodwill impairment charges in future periods.

As of December 31, 2016 and 2015, we had $490 million of indefinite-lived intangible assets related to the Jeppesen and Aviall brand and trade names acquired in business combinations. We test these intangibles for impairment by comparing their carrying value to current projections of discounted cash flows attributable to the brand and trade names. Any excess carrying value over the amount of discounted cash flows represents the amount of the impairment. A 10% decrease in the discounted cash flows would not impact the carrying value of these indefinite-lived intangible assets.

Pension Plans

The majority 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. 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.

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The following table shows the sensitivity of our pension plan liability and net periodic cost to a 25 basis point change in the discount rate as of December 31, 2016.

(Dollars in millions)	Change in discount rate Increase 25 bps	Change in discount rate Decrease 25 bps
Pension plans		
Projected benefit obligation	($2,218)	$2,793
Net periodic pension cost	(89)	107

Pension expense is also 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 2016 net periodic pension expense by $147 million. We expect 2017 net periodic pension cost to decrease by approximately $214 million and the portion recognized in earnings to decrease by approximately $1,315 million primarily due to lower service cost and amortization of actuarial losses.

Other

Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 and Section 13(r) of the Securities Exchange Act of 1934, as amended (the “Act”), require disclosure of certain activities, transactions or dealings relating to Iran that occurred during the period covered by this report. Disclosure is required even if the activities, transactions or dealings were conducted in compliance with applicable law. We have disclosed such activities in our Quarterly Report on Form 10-Q for the first quarter of 2016 and such disclosure is incorporated herein by reference.

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-rate debt obligations, and customer financing assets and liabilities. Additionally, BCC uses interest rate swaps with certain debt obligations to manage exposure to interest rate changes. Historically, we have not experienced material gains or losses on our customer financing assets and liabilities due to interest rate changes. As of December 31, 2016, the impact over the next 12 months of a 100 basis point rise in interest rates to our pre-tax earnings would not be significant. 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.

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, 2016, 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 $226 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.

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The Boeing Company and Subsidiaries
Consolidated Statements of Operations
(Dollars in millions, except per share data)

Years ended December 31,	2016	2015	2014
Sales of products	$84,399	$85,255	$80,688
Sales of services	10,172	10,859	10,074
Total revenues	94,571	96,114	90,762
Cost of products	(72,713)	(73,446)	(68,551)
Cost of services	(8,018)	(8,578)	(8,132)
Boeing Capital interest expense	(59)	(64)	(69)
Total costs and expenses	(80,790)	(82,088)	(76,752)
	13,781	14,026	14,010
Income from operating investments, net	303	274	287
General and administrative expense	(3,616)	(3,525)	(3,767)
Research and development expense, net	(4,627)	(3,331)	(3,047)
Loss on dispositions, net	(7)	(1)	(10)
Earnings from operations	5,834	7,443	7,473
Other income/(loss), net	40	(13)	(3)
Interest and debt expense	(306)	(275)	(333)
Earnings before income taxes	5,568	7,155	7,137
Income tax expense	(673)	(1,979)	(1,691)
Net earnings	$4,895	$5,176	$5,446
Basic earnings per share	$7.70	$7.52	$7.47
Diluted earnings per share	$7.61	$7.44	$7.38

See Notes to the Consolidated Financial Statements on pages 55 – 106.

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The Boeing Company and Subsidiaries
Consolidated Statements of Comprehensive Income
(Dollars in millions)

Years ended December 31,	2016	2015	2014
Net earnings	$4,895	$5,176	$5,446
Other comprehensive (loss)/income, net of tax:			
Currency translation adjustments	(104)	(92)	(97)
Unrealized (loss)/gain on certain investments, net of tax of $1, ($5) and $0	(2)	8	
Unrealized gain/(loss) on derivative instruments:			
Unrealized (loss) arising during period, net of tax of $4, $77, and $77	(8)	(140)	(137)
Reclassification adjustment for loss included in net earnings, net of tax of ($43), ($43) and ($4)	78	79	7
Total unrealized gain/(loss) on derivative instruments, net of tax	70	(61)	(130)
Defined benefit pension plans & other postretirement benefits:			
Net actuarial (loss) arising during the period, net of tax of $752, $402 and $2,588	(1,365)	(732)	(4,612)
Amortization of actuarial losses included in net periodic pension cost, net of tax of ($288), ($570) and ($367)	524	1,038	661
Settlements and curtailments included in net income, net of tax of ($7), ($27) and ($101)	14	51	180
Pension and postretirement benefit/(cost) related to our equity method investments, net of tax ($7), ($2) and $15	12	3	(27)
Amortization of prior service (credits)/cost included in net periodic pension cost, net of tax of $31, ($22) and ($12)	(57)	38	21
Prior service cost/(credits) arising during the period, net of tax of ($18), ($496) and $3	33	902	(5)
Total defined benefit pension plans & other postretirement benefits, net of tax	(839)	1,300	(3,782)
Other comprehensive (loss)/income, net of tax	(875)	1,155	(4,009)
Comprehensive (loss)/income related to noncontrolling interests	(1)	(3)	10
Comprehensive income, net of tax	$4,019	$6,328	$1,447

See Notes to the Consolidated Financial Statements on pages 55 – 106.

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The Boeing Company and Subsidiaries
Consolidated Statements of Financial Position
(Dollars in millions, except per share data)

December 31,	2016	2015
Assets		
Cash and cash equivalents	$8,801	$11,302
Short-term and other investments	1,228	750
Accounts receivable, net	8,832	8,713
Current portion of customer financing, net	428	212
Inventories, net of advances and progress billings	43,199	47,257
Total current assets	62,488	68,234
Customer financing, net	3,773	3,358
Property, plant and equipment, net	12,807	12,076
Goodwill	5,324	5,126
Acquired intangible assets, net	2,540	2,657
Deferred income taxes	332	265
Investments	1,317	1,284
Other assets, net of accumulated amortization of $497 and $451	1,416	1,408
Total assets	$89,997	$94,408
Liabilities and equity		
Accounts payable	$11,190	$10,800
Accrued liabilities	14,691	14,014
Advances and billings in excess of related costs	23,869	24,364
Short-term debt and current portion of long-term debt	384	1,234
Total current liabilities	50,134	50,412
Deferred income taxes	1,338	2,392
Accrued retiree health care	5,916	6,616
Accrued pension plan liability, net	19,943	17,783
Other long-term liabilities	2,221	2,078
Long-term debt	9,568	8,730
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	4,762	4,834
Treasury stock, at cost	(36,097)	(29,568)
Retained earnings	40,714	38,756
Accumulated other comprehensive loss	(13,623)	(12,748)
Total shareholders' equity	817	6,335
Noncontrolling interests	60	62
Total equity	877	6,397
Total liabilities and equity	$89,997	$94,408

See Notes to the Consolidated Financial Statements on pages 55 – 106.

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The Boeing Company and Subsidiaries
Consolidated Statements of Cash Flows
(Dollars in millions)

Years ended December 31,	2016	2015	2014
Cash flows – operating activities:			
Net earnings	$4,895	$5,176	$5,446
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Non-cash items –			
Share-based plans expense	190	189	195
Depreciation and amortization	1,910	1,833	1,906
Investment/asset impairment charges, net	90	167	229
Customer financing valuation benefit	(7)	(5)	(28)
Loss on dispositions, net	7	1	10
Other charges and credits, net	369	364	317
Excess tax benefits from share-based payment arrangements		(157)	(114)
Changes in assets and liabilities –			
Accounts receivable	112	(1,069)	(1,328)
Inventories, net of advances and progress billings	3,755	(1,110)	(4,330)
Accounts payable	622	(238)	1,339
Accrued liabilities	726	2	(1,088)
Advances and billings in excess of related costs	(493)	1,192	3,145
Income taxes receivable, payable and deferred	(810)	477	1,325
Other long-term liabilities	(68)	46	36
Pension and other postretirement plans	153	2,470	1,186
Customer financing, net	(696)	167	578
Other	(256)	(142)	34
Net cash provided by operating activities	10,499	9,363	8,858
Cash flows – investing activities:			
Property, plant and equipment additions	(2,613)	(2,450)	(2,236)
Property, plant and equipment reductions	38	42	34
Acquisitions, net of cash acquired	(297)	(31)	(163)
Contributions to investments	(1,719)	(2,036)	(8,617)
Proceeds from investments	1,209	2,590	13,416
Other	2	39	33
Net cash (used)/provided by investing activities	(3,380)	(1,846)	2,467
Cash flows – financing activities:			
New borrowings	1,325	1,746	962
Debt repayments	(1,359)	(885)	(1,601)
Repayments of distribution rights and other asset financing	(24)		(185)
Stock options exercised	321	399	343
Excess tax benefits from share-based payment arrangements		157	114
Employee taxes on certain share-based payment arrangements	(93)	(96)	(98)
Common shares repurchased	(7,001)	(6,751)	(6,001)
Dividends paid	(2,756)	(2,490)	(2,115)
Other			(12)
Net cash used by financing activities	(9,587)	(7,920)	(8,593)
Effect of exchange rate changes on cash and cash equivalents	(33)	(28)	(87)
Net (decrease)/increase in cash and cash equivalents	(2,501)	(431)	2,645
Cash and cash equivalents at beginning of year	11,302	11,733	9,088

Cash and cash equivalents at end of year	$8,801	$11,302	$11,733

See Notes to the Consolidated Financial Statements on pages 55 – 106.

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The Boeing Company and Subsidiaries
Consolidated Statements of Equity

	Boeing shareholders						
(Dollars in millions, except per share data)	Common Stock	Additional Paid-In Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Non-controlling Interest	Total
Balance at January 1, 2014	$5,061	$4,415	($17,671)	$32,964	($9,894)	$122	$14,997
Net earnings				5,446		10	5,456
Other comprehensive loss, net of tax of ($2,199)					(4,009)		(4,009)
Share-based compensation and related dividend equivalents		208		(20)			188
Excess tax pools		114					114
Treasury shares issued for stock options exercised, net		17	326				343
Treasury shares issued for other share-based plans, net		(129)	48				(81)
Common shares repurchased			(6,001)				(6,001)
Cash dividends declared ($3.10 per share)				(2,210)			(2,210)
Changes in noncontrolling interests						(7)	(7)
Balance at December 31, 2014	$5,061	$4,625	($23,298)	$36,180	($13,903)	$125	$8,790
Net earnings				5,176		(3)	5,173
Other comprehensive income, net of tax of ($686)					1,155		1,155
Share-based compensation and related dividend equivalents		214		(25)			189
Excess tax pools		158					158
Treasury shares issued for stock options exercised, net		(29)	428				399
Treasury shares issued for other share-based plans, net		(134)	53				(81)
Common shares repurchased			(6,751)				(6,751)
Cash dividends declared ($3.82 per share)				(2,575)			(2,575)
Changes in noncontrolling interests						(60)	(60)
Balance at December 31, 2015	$5,061	$4,834	($29,568)	$38,756	($12,748)	$62	$6,397
Net earnings				4,895		(1)	4,894
Other comprehensive loss, net of tax of $425					(875)		(875)
Share-based compensation and related dividend equivalents		244		(35)			209
Excess tax pools		(84)					(84)
Treasury shares issued for stock options exercised, net		(63)	383				320
Treasury shares issued for other share-based plans, net		(169)	89				(80)
Common shares repurchased			(7,001)				(7,001)
Cash dividends declared ($4.69 per share)				(2,902)			(2,902)
Changes in noncontrolling interests						(1)	(1)

Balance at December 31, 2016	$5,061	$4,762	($36,097)	$40,714	($13,623)	$60	$877

See Notes to the Consolidated Financial Statements on pages 55 – 106.

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The Boeing Company and Subsidiaries
Notes to the Consolidated Financial Statements
Summary of Business Segment Data
(Dollars in millions)

Years ended December 31,	2016	2015	2014
Revenues:			
Commercial Airplanes	$65,069	$66,048	$59,990
Defense, Space & Security:			
Boeing Military Aircraft	12,515	13,424	13,410
Network & Space Systems	7,046	7,751	8,003
Global Services & Support	9,937	9,213	9,468
Total Defense, Space & Security	29,498	30,388	30,881
Boeing Capital	298	413	416
Unallocated items, eliminations and other	(294)	(735)	(525)
Total revenues	$94,571	$96,114	$90,762
Earnings from operations:			
Commercial Airplanes	$3,130	$5,157	$6,411
Defense, Space & Security:			
Boeing Military Aircraft	1,231	1,311	1,294
Network & Space Systems	493	726	698
Global Services & Support	1,284	1,237	1,141
Total Defense, Space & Security	3,008	3,274	3,133
Boeing Capital	59	50	92
Segment operating profit	6,197	8,481	9,636
Unallocated items, eliminations and other	(363)	(1,038)	(2,163)
Earnings from operations	5,834	7,443	7,473
Other income/(loss), net	40	(13)	(3)
Interest and debt expense	(306)	(275)	(333)
Earnings before income taxes	5,568	7,155	7,137
Income tax expense	(673)	(1,979)	(1,691)
Net earnings	$4,895	$5,176	$5,446

This information is an integral part of the Notes to the Consolidated Financial Statements. See Note 21 for further segment results.

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The Boeing Company and Subsidiaries
Notes to the Consolidated Financial Statements
Years ended December 31, 2016, 2015 and 2014
(Dollars in millions, except per share data)

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. Certain amounts have been reclassified to conform to the current year presentation.

In March 2016, the FASB issued ASU No. 2016-09, Improvements to Employee Share-Based Payment Accounting. The new standard is effective for reporting periods beginning after December 15, 2016 and early adoption is permitted. The standard requires excess tax benefits or deficiencies for share-based payments to be recorded in the period shares vest or settle as income tax expense or benefit, rather than within Additional paid-in capital. Cash flows related to excess tax benefits will be included in Net cash provided by operating activities and will no longer be separately classified as a financing activity. The standard also allows us to repurchase more of an employee's shares for tax withholding purposes and provides an accounting policy election to account for forfeitures as they occur. We have elected to continue to estimate forfeitures and are not planning to change tax withholdings.

The Company prospectively adopted the standard during the second quarter of 2016 effective January 1, 2016. For the year ended December 31, 2016, this resulted in an increase of $105 to Net earnings and $0.16 to diluted earnings per share. Adoption also resulted in a $105 increase in Net cash provided by operating activities and a corresponding $105 reduction in Net cash used by financing activities for the year ended December 31, 2016.

Standards Issued and Not Yet Implemented

In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016 - 02, Leases (Topic 842). The new standard is effective for reporting periods beginning after December 15, 2018 and early adoption is permitted. The standard will require lessees to report most leases as assets and liabilities on the balance sheet, while lessor accounting will remain substantially unchanged. The standard requires a modified retrospective transition approach for existing leases, whereby the new rules will be applied to the earliest year presented. We do not expect the new lease standard to have a material effect on our financial position, results of operations or cash flows.

We plan to implement ASU No. 2014-09, Revenue from Contracts with Customers in the first quarter of 2018. This comprehensive new standard will supersede existing revenue recognition guidance and require revenue to be recognized when promised goods or services are transferred to customers in amounts that reflect the consideration to which the company expects to be entitled in exchange for those goods or services. The standard also requires expanded disclosures regarding revenue and contracts with customers. The guidance permits two implementation approaches, one requiring retrospective application of the new standard with restatement of prior years and one requiring prospective application of the new standard with disclosure of results under old standards. The Company plans to adopt the new standard effective January 1, 2018 and apply it retrospectively to all periods presented.

We are analyzing the impact of the new standard on the Company's revenue contracts, comparing our current accounting policies and practices to the requirements of the new standard, and identifying potential differences that would result from applying the new standard to our contracts. We are also identifying and

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implementing changes to the Company's business processes, systems and controls to support adoption of the new standard in 2018 and recasting prior periods' financial information.

We expect adoption of the new standard will have a material impact on our income statement and balance sheet but are unable to quantify those impacts at this time. We currently expect that most of our BDS contracts that currently recognize revenue as deliveries are made or based on the attainment of performance milestones will recognize revenue under the new standard as costs are incurred. Certain military derivative aircraft contracts in our Commercial Airplane business will also recognize revenue as costs are incurred. The new standard will not change the total amount of revenue recognized on these contracts, only accelerate the timing of when the revenue is recognized. We expect a corresponding acceleration in timing of cost of sales recognition for these contracts resulting in a decrease in Inventories from long-term contracts in progress upon adoption of the new standard.

We do not expect the new standard to affect revenue recognition or the use of program accounting for commercial airplane contracts in our Commercial Airplane business. We will continue to recognize revenue for these contracts at the point in time when the customer accepts delivery of the airplane.

From a balance sheet perspective we expect adoption of the new standard will increase Total Assets and Total Liabilities because netting of advances from customers against inventory will no longer be permitted. This will result in an increase in the Advances liability and Inventories from commercial aircraft programs upon adoption of the new standard.

Use of Estimates

Management makes assumptions and estimates to prepare financial statements in conformity with accounting principles generally accepted in the United States of America. Those assumptions and estimates directly affect the amounts reported in the Consolidated Financial Statements. Significant estimates for which changes in the near term are considered reasonably possible and that may have a material impact on the financial statements are disclosed in these Notes to the Consolidated Financial Statements.

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

Contract Accounting Contract accounting is used for development and production activities predominantly by Defense, Space & Security (BDS). The majority of business conducted by BDS is performed under contracts with the U.S. government and other customers that extend over several years. Contract accounting involves a judgmental process of estimating total sales and costs for each contract resulting in the development of estimated cost of sales percentages. For each contract, the amount reported as cost of sales is determined by applying the estimated cost of sales percentage to the amount of revenue recognized. When the current estimates of total sales and costs for a contract indicate a loss, a provision for the entire loss on the contract is recognized.

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 contract's percent complete. In 2016 and 2015, net unfavorable cumulative catch-up adjustments, including reach-forward losses, across all contracts decreased Earnings from operations by $912 and $224 and diluted EPS by $1.25 and $0.23. In 2014 net favorable cumulative catch-up adjustments, including reach-forward losses, across all contracts increased Earnings from operations by $100 and diluted EPS by $0.10. Significant adjustments during the three

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years ended December 31, 2016 included reach-forward losses of $1,128, $835 and $425 on the USAF KC-46A Tanker contract recorded during 2016, 2015 and 2014.

We combine contracts for accounting purposes when they are negotiated as a package with an overall profit margin objective. These essentially represent an agreement to do a single project for a single customer, involve interrelated construction activities with substantial common costs, and are performed concurrently or sequentially. When a group of contracts is combined, revenue and profit are earned uniformly over the performance of the combined contracts. Similarly, we may segment a single contract or group of contracts when a clear economic decision has been made during contract negotiations that would produce different rates of profitability for each element or phase of the contract.

Sales related to fixed-price contracts are recognized as deliveries are made, except for certain fixed-price contracts that require substantial performance over an extended period before deliveries begin, for which sales are recorded based on the attainment of performance milestones. Sales related to contracts in which we are reimbursed for costs incurred plus an agreed upon profit are recorded as costs are incurred. The Federal Acquisition Regulations provide guidance on the types of cost that will be reimbursed in establishing contract price. Contracts may contain provisions to earn incentive and award fees if specified targets are achieved. Incentive and award fees that can be reasonably estimated and are probable are recorded over the performance period of the contract. Incentive and award fees that cannot be reasonably estimated are recorded when awarded.

Program Accounting Our Commercial Airplanes segment predominantly uses program accounting to account for cost of sales related to its programs. Program accounting is applicable to products manufactured for delivery under production-type contracts where profitability is realized over multiple contracts and years. Under program accounting, inventoriable production costs, program tooling and other non-recurring costs, and warranty costs are accumulated and charged to 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. 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. 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.

We recognize sales for commercial airplane deliveries as each unit is completed and accepted by the customer. Sales recognized represent the price negotiated with the customer, adjusted by an escalation formula as specified in the customer agreement. The amount reported as cost of sales is determined by applying the estimated cost of sales percentage for the total remaining program to the amount of sales recognized for airplanes delivered and accepted by the customer. Changes in estimated revenues, cost of sales and the related effects on program margins are recognized prospectively except in cases where the program is determined to have a reach-forward loss in which case the loss is recognized in the current period. See Note 11.

Concession Sharing Arrangements We account for sales concessions to our customers in consideration of their purchase of products and services as a reduction to revenue when the related products and services are delivered. 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.

Spare Parts Revenue We recognize sales of spare parts upon delivery and the amount reported as cost of sales is recorded at average cost.

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Service Revenue Service revenue is recognized when the service is performed with the exception of U.S. government service agreements, which are accounted for using contract accounting. Service activities primarily include: support agreements associated with military aircraft and helicopter contracts, space travel on Commercial Crew, ongoing maintenance of International Space Station, and technical and flight operation services for commercial aircraft. Service revenue and associated cost of sales from pay-in-advance subscription fees are deferred and recognized as services are rendered.

Financial Services Revenue We record financial services revenue associated with sales-type/finance leases, operating leases, and notes receivable.

Lease and financing revenue arrangements are included in Sales of services on the Consolidated Statements of Operations. For sales-type/finance leases, we record an asset at lease inception. This asset is recorded at the aggregate future minimum lease payments, estimated residual value of the leased equipment, and 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. 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, are recorded at cost and depreciated over the period that we project we will hold the asset to an estimated residual value, using the straight-line method. We periodically review our estimates of residual value and recognize forecasted changes by prospectively adjusting depreciation expense.

For notes receivable, notes are recorded 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.

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 $147, $136 and $135 during 2016, 2015 and 2014, respectively. Reinsurance costs related to premiums and claims paid to the reinsurance pool were $139, $132 and $144 during 2016, 2015 and 2014, respectively. Revenues and costs are presented net in Cost of sales in the Consolidated Statements of Operations.

Fleet Support

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

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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 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 $311, $286 and $289 in 2016, 2015 and 2014, respectively.

We have established cost sharing arrangements with some suppliers for the 787 program. Our cost sharing arrangements state that the supplier contributions are for reimbursements of costs we incur for experimentation, basic design, and testing activities during the 787 development. In each arrangement, we retain substantial rights to the 787 part or component covered by the arrangement. The amounts received from these cost sharing arrangements are recorded as a reduction to research and development expenses since we have no obligation to refund any amounts received per the arrangements regardless of the outcome of the development efforts. Specifically, under the terms of each agreement, payments received from suppliers for their share of the costs are typically based on milestones and are recognized as earned when we achieve the milestone events and no ongoing obligation on our part exists. In the event we receive a milestone payment prior to the completion of the milestone, the amount is classified in Accrued liabilities until earned.

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 federal, state, and non-U.S. income taxes are calculated on reported Earnings 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 expense.

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Postretirement Plans

The majority 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. 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 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 future service period of employees. 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 $77 and $163 at December 31, 2016 and 2015.

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

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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.

We net advances and progress billings on long-term contracts against inventory in the Consolidated Statements of Financial Position. Advances and progress billings in excess of related inventory are reported in Advances and billings in excess of related costs.

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, net of advances and progress billings, in the accompanying Consolidated

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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. 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.

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 two-step impairment process. 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 two-step impairment process is then performed; otherwise, no further testing is required. For operations where the two-step impairment process is used, we first compare the carrying value of net assets to the fair value of the related operations. If the fair value is determined to be less than carrying value, a second step is performed to compute the amount of the impairment. In this process, a fair value for goodwill is estimated, based in part on the fair value of the operations, and is compared to its carrying value. The shortfall of the fair value below carrying value represents the amount of goodwill impairment.

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Indefinite-lived intangibles consist of brand and trade names acquired in business combinations. We test these intangibles for impairment by comparing their carrying value to current projections of discounted cash flows attributable to the brand and trade names. 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 3 to 30 years; customer base, from 3 to 17 years; distribution rights, from 3 to 27 years; and other, from 2 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 securities include commercial paper, U.S. treasury and U.S. government agency securities, and corporate debt securities. Available-for-sale 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 securities are recognized based on the specific identification method. Available-for-sale 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%.

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 certain cost method 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/(expense), 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 derivatives designated as hedges of the exposure to changes in fair value of the recognized asset or liability or a firm commitment (referred to as fair value hedges), the gain or loss is recognized in earnings in the period of change together with the offsetting loss or gain on the hedged item attributable to the risk being hedged. The effect of that accounting is to include in earnings the extent to which the hedge is not effective in achieving offsetting changes in fair value. For our cash flow hedges, the effective portion of the derivative’s gain or loss is initially reported in comprehensive income and is subsequently reclassified into earnings in the same period or periods during which the hedged forecasted transaction affects earnings. The ineffective portion of the gain or loss of a cash flow hedge is reported in earnings immediately. We have agreements to purchase and sell aluminum to address long-term strategic sourcing objectives and international 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

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aluminum agreements and for other derivative instruments not designated for hedge accounting treatment, the changes in their fair value are recorded in earnings immediately.

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. We assess the fair value of the assets we own, including 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 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.

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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 potential impairment of customer financing receivables in a valuation account, the balance of which is an accounting estimate of probable but unconfirmed losses. The allowance for losses on receivables relates to two components of receivables: (a) receivables that are evaluated individually for impairment and (b) all other receivables.

We determine a receivable is impaired 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 of the receivable agreement, without regard to any subsequent restructurings. Factors considered in assessing collectability include, but are not limited to, a customer's extended delinquency, requests for restructuring and filings for bankruptcy. We determine a specific impairment allowance based on the difference between the carrying value of the receivable and the estimated fair value of the related collateral we would expect to realize.

We review the adequacy of the allowance attributable to the remaining receivables (after excluding receivables subject to a specific impairment allowance) by assessing both the collateral exposure and the applicable cumulative default 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 cumulative default rate is determined using two components: customer credit ratings and weighted average remaining contract term. Internally assigned credit ratings, our credit quality indicator, are determined for each customer in the portfolio. Those ratings are updated based upon public information and information obtained directly from our customers.

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 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 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 receivables.

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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 Commercial Airplanes segment. Generally, aircraft sales are accompanied by a three to four-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 segments principally relate to sales of military aircraft and weapons hardware and are included in the contract cost estimates. 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 sales occur. 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 that are issued or modified after December 31, 2002. For a residual value guarantee where we received a cash premium, the liability is equal to the cash premium received at the guarantee's inception. 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, for each future period the credit guarantee will be outstanding. If at inception of a guarantee, we determine there is a probable related contingent loss, we will recognize a liability for the greater of (a) the fair value of the guarantee as described above or (b) the probable contingent loss amount.

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Note 2 – Goodwill and Acquired Intangibles

Changes in the carrying amount of goodwill by reportable segment for the years ended December 31, 2016 and 2015 were as follows:

	Commercial Airplanes	Boeing Military Aircraft	Network & Space Systems	Global Services & Support	Total
Balance at January 1, 2015	$2,131	$961	$1,566	$461	$5,119
Acquisitions	6	15			21
Goodwill adjustments	(14)				(14)
Balance at December 31, 2015	$2,123	$976	$1,566	$461	$5,126
Acquisitions[1]		206			206
Goodwill adjustments	(8)				(8)
Balance at December 31, 2016[1]	$2,115	$1,182	$1,566	$461	$5,324

(1) The increase in goodwill is primarily the result of an acquisition in the fourth quarter of 2016. The purchase price allocation for this acquisition is preliminary.

As of December 31, 2016 and 2015, we had indefinite-lived intangible assets with carrying amounts of $490 relating to trade names.

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

	2016		2015	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Distribution rights	$2,281	$797	$2,245	$673
Product know-how	503	271	503	244
Customer base	595	436	600	403
Developed technology	523	376	455	357
Other	194	166	198	157
Total	$4,096	$2,046	$4,001	$1,834

Amortization expense for acquired finite-lived intangible assets for the years ended December 31, 2016 and 2015 was $220 and $224. Estimated amortization expense for the five succeeding years is as follows:

	2017	2018	2019	2020	2021
Estimated amortization expense	$221	$210	$185	$157	$147

During 2016 and 2015 we acquired $113 and $15 of finite-lived intangible assets, of which $31 and $0 related to non-cash investing and financing transactions.

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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,	2016	2015	2014
Net earnings	$4,895	$5,176	$5,446
Less: earnings available to participating securities	3	4	6
Net earnings available to common shareholders	$4,892	$5,172	$5,440
Basic			
Basic weighted average shares outstanding	636.5	688.0	728.9
Less: participating securities	1.0	1.1	1.3
Basic weighted average common shares outstanding	635.5	686.9	727.6
Diluted			
Basic weighted average shares outstanding	636.5	688.0	728.9
Dilutive potential common shares[(1)]	7.3	8.1	9.1
Diluted weighted average shares outstanding	643.8	696.1	738.0
Less: participating securities	1.0	1.1	1.3
Diluted weighted average common shares outstanding	642.8	695.0	736.7
Net earnings per share:			
Basic	$7.70	$7.52	$7.47
Diluted	7.61	7.44	7.38

(1) Diluted earnings per share includes any dilutive impact of stock options, restricted stock units, performance-based restricted stock units and performance awards.

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 earnings per share because the effect was either antidilutive or the performance condition was not met.

(Shares in millions)

Years ended December 31,	2016	2015	2014
Performance awards	6.5	5.6	5.1
Performance-based restricted stock units	2.5	2.3	1.3

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Note 4 – Income Taxes

The components of earnings before income taxes were:

Years ended December 31,	2016	2015	2014
U.S.	$5,175	$6,828	$6,829
Non-U.S.	393	327	308
Total	$5,568	$7,155	$7,137

Income tax expense/(benefit) consisted of the following:

Years ended December 31,	2016	2015	2014
Current tax expense			
U.S. federal	$1,193	$2,102	$676
Non-U.S.	133	122	91
U.S. state	15	21	69
Total current	1,341	2,245	836
Deferred tax expense			
U.S. federal	(618)	(297)	828
Non-U.S.	(4)	4	34
U.S. state	(46)	27	(7)
Total deferred	(668)	(266)	855
Total income tax expense	$673	$1,979	$1,691

Net income tax payments were $1,460, $1,490 and $355 in 2016, 2015 and 2014, respectively.

The following is a reconciliation of the U.S. federal statutory tax rate of 35% to our effective income tax rates:

Years ended December 31,	2016	2015	2014
U.S. federal statutory tax	35.0 %	35.0 %	35.0 %
Research and development credits	(5.2)	(3.4)	(2.9)
Tax basis adjustment [1]	(7.9)		(3.6)
U.S. manufacturing activity tax benefit	(3.8)	(2.9)	(1.2)
Tax on international activities	(0.5)	(0.6)	(0.2)
Excess tax benefits [2]	(1.9)		
Federal audit settlements [3]	(3.2)		(3.6)
Other provision adjustments	(0.4)	(0.4)	0.2
Effective income tax rate	12.1 %	27.7 %	23.7 %

(1) In the third quarter of 2016 and the second quarter of 2014, we recorded incremental tax benefits of $440 and $265 related to the application of a 2012 Federal Court of Claims decision which held that the tax basis in certain assets could be increased (tax basis adjustment).

(2) Throughout 2016, we recorded tax benefits of $105 as a result of the adoption of ASU 2016-09 “Improvements to Employee Share-Based Payment Accounting” which required excess tax benefits related to employee share-based payments to be recorded through tax expense.

(3) In the third quarter of 2016, a tax benefit of $177 was recorded as a result of the settlement of the 2011-2012 federal tax audit. In the second quarter of 2014, tax benefits of $116 and $143 were recorded as a result of the 2007-2008 and 2009-2010 federal tax audit settlements.

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Federal income tax audits have been settled for all years prior to 2013. The Internal Revenue Service (IRS) began the 2013-2014 federal tax audit in the fourth quarter of 2016. We are also subject to examination in major state and international jurisdictions for the 2001-2016 tax years. We believe appropriate provisions for all outstanding tax issues have been made for all jurisdictions and all open years.

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

	2016	2015
Inventory and long-term contract methods of income recognition	(9,954)	(10,401)
Pension benefits	7,385	6,303
Retiree health care benefits	2,268	2,513
Fixed assets, intangibles and goodwill (net of valuation allowance $16 and $16)	(2,007)	(1,837)
Other employee benefits	1,225	1,339
Customer and commercial financing	(730)	(777)
Accrued expenses and reserves	587	609
Net operating loss, credit and capital loss carryovers (net of valuation allowance of $79 and $89)[1]	277	216
Other	(57)	(92)
Net deferred tax (liabilities)/assets[2]	($1,006)	($2,127)

(1) Of the deferred tax asset for net operating loss and credit carryovers, $262 expires on or before December 31, 2036 and $15 may be carried over indefinitely.

(2) Included in the net deferred tax (liabilities)/assets as of December 31, 2016 and 2015 are deferred tax assets in the amounts of $7,701 and $7,277 related to Accumulated other comprehensive loss.

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

	2016	2015
Deferred tax assets	$13,591	$13,128
Deferred tax liabilities	(14,502)	(15,150)
Valuation allowance	(95)	(105)
Net deferred tax (liabilities)/assets	($1,006)	($2,127)

The measurement of deferred tax assets is reduced by a valuation allowance if, based upon available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

We have provided for U.S. deferred income taxes and foreign withholding tax in the amount of $32 on undistributed earnings not considered indefinitely reinvested in our non-U.S. subsidiaries. We have not provided for U.S. deferred income taxes or foreign withholding tax on the remainder of undistributed earnings from our non-U.S. subsidiaries of approximately $850 because such earnings are considered to be indefinitely reinvested and it is not practicable to estimate the amount of tax that may be payable upon distribution.

As of December 31, 2016 and 2015, 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 benefit included in the Consolidated Statements of Operations were not significant for the years ended December 31, 2016, 2015 and 2014.

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

	2016	2015	2014
Unrecognized tax benefits – January 1	$1,617	$1,312	$1,141
Gross increases – tax positions in prior periods	17	38	403
Gross decreases – tax positions in prior periods	(348)	(25)	(251)
Gross increases – current-period tax positions	344	292	217
Settlements	(73)		(197)
Lapse of statute of limitations			(1)
Unrecognized tax benefits – December 31	$1,557	$1,617	$1,312

As of December 31, 2016, 2015 and 2014, the total amount of unrecognized tax benefits was $1,557, $1,617 and $1,312, respectively, of which $1,402, $1,479 and $1,180 would affect the effective tax rate, if recognized. As of December 31, 2016, these amounts are primarily associated with U.S. federal tax issues such as the amount of research tax credits claimed, the U.S. manufacturing activity tax benefit, tax basis adjustments and U.S. taxation of foreign earnings. Also included in these amounts are accruals for domestic state tax issues such as the allocation of income among various state tax jurisdictions and the amount of state tax credits claimed.

Note 5 – Accounts Receivable, net

Accounts receivable at December 31 consisted of the following:

	2016	2015
U.S. government contracts	$4,639	$4,864
Commercial Airplanes	2,432	2,250
Defense, Space & Security customers [1]	733	889
Reinsurance receivables	526	550
Other	567	254
Less valuation allowance	(65)	(94)
Total	$8,832	$8,713

[1] Excludes U.S. government contracts

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

	Unbillable		Claims	
	2016	2015	2016	2015
Current	$1,919	$2,024	$38	
Expected to be collected after one year	2,011	2,001	$91	70
Total	$3,930	$4,025	$129	$70

Under contract accounting unbillable receivables on long-term contracts arise when the sales or revenues based on performance attainment, though appropriately recognized, cannot be billed yet under terms of the contract as of the balance sheet date. Any adjustment for the credit quality of unbillable receivables, if required, would be recorded as a direct reduction of revenue. Factors considered in assessing the collectability of unbillable receivables include, but are not limited to, a customer's extended delinquency, requests for restructuring and filings for bankruptcy. Unbillable receivables related to commercial customers expected to be collected after one year were $172 and $178 at December 31, 2016 and 2015. Accounts

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receivable related to claims are items that we believe are earned, but are subject to uncertainty concerning their determination or ultimate realization.

Accounts receivable, other than those described above, expected to be collected after one year are not material.

Note 6 – Inventories

Inventories at December 31 consisted of the following:

	2016	2015
Long-term contracts in progress	$12,801	$13,858
Commercial aircraft programs	52,048	55,230
Commercial spare parts, used aircraft, general stock materials and other	5,446	6,673
Inventory before advances and progress billings	70,295	75,761
Less advances and progress billings	(27,096)	(28,504)
Total	$43,199	$47,257

Long-Term Contracts in Progress

Long-term contracts in progress includes Delta launch program inventory that is being sold at cost to United Launch Alliance (ULA) under an inventory supply agreement that terminates on March 31, 2021. At December 31, 2016 and 2015, the inventory balance was $120 (net of advances of $220) and $120 (net of advances of $310). See indemnifications to ULA in Note 12.

Included in inventories are capitalized precontract costs of $729 and $732 at December 31, 2016 and 2015, primarily related to KC-46A Tanker and C-17. See Note 11.

Commercial Aircraft Programs

At December 31, 2016 and 2015, commercial aircraft programs inventory included the following amounts related to the 787 program: $32,501 and $34,656 of work in process (including deferred production costs of $27,308 and $28,510), $2,398 and $2,551 of supplier advances, and $3,625 and $3,890 of unamortized tooling and other non-recurring costs. At December 31, 2016, $23,818 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 $7,115 is expected to be recovered from units included in the program accounting quantity that represent expected future orders.

During the second quarter of 2016, we determined that it was unlikely we would receive firm orders for two flight test aircraft that were produced in 2009 and accordingly reclassified associated costs of $1,235 from 787 program inventory to research and development expense. The reclassification also impacted 787 deferred production costs, reducing the balance by $1,011 at June 30, 2016.

At December 31, 2016 and 2015, commercial aircraft programs inventory included the following amounts related to the 747 program: $35 and $942 of deferred production costs, net of reach-forward losses, and $284 and $377 of unamortized tooling costs. At December 31, 2016, $233 of 747 deferred production and unamortized tooling costs are expected to be recovered from units included in the program accounting quantity that have firm orders and $86 is expected to be recovered from units included in the program accounting quantity that represent expected future orders.

At December 31, 2016 and 2015, work in process inventory included a number of completed 747 aircraft that we expect to recover from future orders.

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Commercial aircraft programs inventory included amounts credited in cash or other consideration (early issue sales consideration) to airline customers totaling $3,117 and $3,166 at December 31, 2016 and 2015.

Used aircraft in inventories at Commercial Airplanes totaled $150 and $267 at December 31, 2016 and 2015.

Note 7 – Customer Financing

Customer financing primarily relates to the Boeing Capital (BCC) segment and consisted of the following at December 31:

	2016	2015
Financing receivables:		
Investment in sales-type/finance leases	$1,482	$1,620
Notes	807	256
Total financing receivables	2,289	1,876
Operating lease equipment, at cost, less accumulated depreciation of $359 and $338	1,922	1,710
Gross customer financing	4,211	3,586
Less allowance for losses on receivables	(10)	(16)
Total	$4,201	$3,570

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

	2016	2015
Minimum lease payments receivable	$1,321	$1,537
Estimated residual value of leased assets	505	530
Unearned income	(344)	(447)
Total	$1,482	$1,620

Operating lease equipment primarily includes large commercial jet aircraft and regional jet aircraft. At December 31, 2016 and 2015, operating lease equipment included $6 and $49 available for sale or re-lease. At December 31, 2016 and 2015, we had firm lease commitments for $0 and $15 of this equipment.

Financing receivable balances evaluated for impairment at December 31 were as follows:

	2016	2015
Individually evaluated for impairment	$55	$86
Collectively evaluated for impairment	2,234	1,790
Total financing receivables	$2,289	$1,876

We determine a receivable is impaired 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. At December 31, 2016 and December 31, 2015, we individually evaluated for impairment customer financing receivables of $55 and $86, of which $44 and $0 were determined to be impaired. We recorded no allowance for losses on these impaired receivables as the collateral values exceeded the carrying values of the receivables.

Income recognition is generally suspended for financing receivables at the date full recovery of income and principal becomes not probable. Income is recognized when financing receivables become contractually current and performance is demonstrated by the customer. The average recorded investment

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in impaired financing receivables for the year ended December 31, 2016 was $41 and the related interest income was insignificant.

The change in the allowance for losses on financing receivables for the years ended December 31, 2016, 2015 and 2014, consisted of the following:

	2016	2015	2014
Beginning balance - January 1	($16)	($21)	($49)
Customer financing valuation benefit	6	5	28
Ending balance - December 31	($10)	($16)	($21)
Collectively evaluated for impairment	($10)	($16)	($21)

The adequacy of the allowance for losses is assessed quarterly. Three primary factors influencing the level of our allowance for losses on customer financing receivables are customer credit ratings, default rates and collateral values. 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.

Our financing receivable balances at December 31 by internal credit rating category are shown below:

Rating categories	2016	2015
BBB	$1,324	$973
BB	538	536
B	383	258
CCC	44	23
Other		86
Total carrying value of financing receivables	$2,289	$1,876

At December 31, 2016, our allowance related to receivables with ratings of B, BB and BBB. We applied default rates that averaged 12.7%, 8.8% and 1.1% to the exposure associated with those receivables.

Customer Financing Exposure

Customer financing is collateralized by security in the related asset. The value of the collateral is closely tied to commercial airline performance and overall market conditions and may be subject to reduced valuation with market decline. Declines in collateral values could result in asset impairments, reduced finance lease income, and an increase in the allowance for losses. Our customer financing collateral is concentrated in 747-8 and out-of-production aircraft. Generally, out-of-production aircraft have experienced greater collateral value declines than in-production aircraft.

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The majority of customer financing carrying values are concentrated in the following aircraft models at December 31:

	2016	2015
717 Aircraft ($301 and $372 accounted for as operating leases)	$1,282	$1,415
747-8 Aircraft ($1,086 and $916 accounted for as operating leases)	1,111	916
MD-80 Aircraft (Accounted for as sales-type finance leases)	259	314
757 Aircraft ($43 and $48 accounted for as operating leases)	246	270
767 Aircraft ($85 and $84 accounted for as operating leases)	170	185
777 Aircraft (Accounted for as notes)	165	23
747-400 Aircraft (Accounted for as operating leases)	149	122
737 Aircraft (Accounted for as operating leases)	103	115

Charges related to customer financing asset impairment for the years ended December 31 were as follows:

	2016	2015	2014
Boeing Capital	$45	$162	$139
Other Boeing	21		45
Total	$66	$162	$184

Scheduled receipts on customer financing are as follows:

Year	2017	2018	2019	2020	2021	Beyond 2021
Principal payments on notes receivable	$242	$105	$159	$125	$176	
Sales-type/finance lease payments receivable	272	220	207	174	114	$334
Operating lease equipment payments receivable	463	162	147	129	110	587

Note 8 – Property, Plant and Equipment

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

	2016	2015
Land	$535	$536
Buildings and land improvements	13,796	12,397
Machinery and equipment	13,569	13,187
Construction in progress	1,790	2,242
Gross property, plant and equipment	29,690	28,362
Less accumulated depreciation	(16,883)	(16,286)
Total	$12,807	$12,076

Depreciation expense was $1,418, $1,357 and $1,414 for the years ended December 31, 2016, 2015 and 2014, respectively. Interest capitalized during the years ended December 31, 2016, 2015 and 2014 totaled $170, $158 and $102, respectively.

Rental expense for leased properties was $287, $267 and $277, for the years ended December 31, 2016, 2015 and 2014, respectively. At December 31, 2016, minimum rental payments under capital leases

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aggregated $144. Minimum rental payments under operating leases with initial or remaining terms of one year or more aggregated $1,475, net of sublease payments of $19 at December 31, 2016. Payments due under operating and capital leases net of sublease amounts and non-cancellable future rentals during the next five years are as follows:

	2017	2018	2019	2020	2021
Minimum operating lease payments, net of sublease amounts	$233	$210	$182	$135	$95
Minimum capital lease payments	60	40	24	10	3

Accounts payable related to purchases of property, plant and equipment were $292 and $502 for the years ended December 31, 2016 and 2015.

Note 9 – Investments

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

	2016	2015
Equity method investments [1]	$1,242	$1,230
Time deposits	665	456
Available-for-sale investments	537	244
Other investments	33	35
Restricted cash & cash equivalents [2]	68	69
Total	$2,545	$2,034

[1] Dividends received were $314 and $239 during 2016 and 2015. Retained earnings at December 31, 2016 include undistributed earnings from our equity method investments of $292.

[2] Reflects amounts restricted in support of our workers' compensation programs and insurance premiums.

Equity Method Investments

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

	Segment	Ownership Percentages	Investment Balance	
			2016	2015
United Launch Alliance	Network & Space Systems (N&SS)	50%	$914	$908
Other	Commercial Airplanes, N&SS and Global Services & Support (GS&S)		328	322
Total equity method investments			$1,242	$1,230

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Note 10 – Other Assets

Sea Launch

At December 31, 2016 and 2015, Other assets included $356 of receivables related to our former investment in the Sea Launch venture which became payable by certain Sea Launch partners following Sea Launch's bankruptcy filing in June 2009. The $356 includes $147 related to a payment made by us under a bank guarantee on behalf of Sea Launch and $209 related to loans (partner loans) we made to Sea Launch. The net amounts owed to Boeing by each of the partners are as follows: S.P. Koroley Rocket and Space Corporation Energia of Russia (RSC Energia) – $223, PO Yuzhnoye Mashinostroitelny Zavod of Ukraine – $89 and KB Yuzhnoye of Ukraine – $44.

On February 1, 2013, we filed an action in the United States District Court for the Central District of California seeking reimbursement from the other Sea Launch partners of the $147 bank guarantee payment and the $209 partner loan obligations. On May 12, 2016, the court issued a judgment in favor of Boeing relating to the bank guarantee payment and the partner loan obligations.

In December 2016, we reached an agreement which we believe will enable us to recover the outstanding receivable balance from RSC Energia over the next several years. The agreement is subject to certain contingencies which we expect will be resolved during the first quarter of 2017. We will continue to pursue collection efforts against the former Ukrainian partners in connection with the court judgment and continue to believe the partners have the financial wherewithal to pay and intend to pursue vigorously all of our rights and remedies. In the event we are unable to secure reimbursement from the Sea Launch partners, we could incur additional charges. Our current assessment as to the collectability of these receivables takes into account the current economic conditions in Russia and Ukraine, although we will continue to monitor the situation.

Spirit AeroSystems

As of December 31, 2016 and 2015, Other assets included $143 and $140 of receivables related to indemnifications from Spirit AeroSystems, Inc. (Spirit), for costs incurred related to pension and retiree medical obligations of former Boeing employees that were subsequently employed by Spirit. During the fourth quarter of 2014, Boeing filed a complaint against Spirit in Delaware Superior Court seeking to enforce our rights to indemnification and to recover from Spirit amounts incurred by Boeing for pension and retiree medical obligations. We expect to fully recover from Spirit.

Note 11 – Liabilities, Commitments and Contingencies

Accrued Liabilities

Accrued liabilities at December 31 consisted of the following:

	2016	2015
Accrued compensation and employee benefit costs	$5,720	$5,624
Environmental	562	566
Product warranties	1,414	1,485
Forward loss recognition	1,385	757
Dividends payable	866	721
Income Taxes Payable	89	262
Other	4,655	4,599
Total	$14,691	$14,014

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Environmental

The following table summarizes environmental remediation activity during the years ended December 31, 2016 and 2015.

	2016	2015
Beginning balance – January 1	$566	$601
Reductions for payments made	(47)	(78)
Changes in estimates	43	43
Ending balance – December 31	$562	$566

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, 2016 and 2015, the high end of the estimated range of reasonably possible remediation costs exceeded our recorded liabilities by $857 and $853.

Product Warranties

The following table summarizes product warranty activity recorded during the years ended December 31, 2016 and 2015.

	2016	2015
Beginning balance – January 1	$1,485	$1,504
Additions for current year deliveries	356	421
Reductions for payments made	(309)	(323)
Changes in estimates	(118)	(117)
Ending balance – December 31	$1,414	$1,485

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, 2016 have expiration dates from 2017 through 2026. At December 31, 2016 and 2015, total contractual trade-in commitments were $1,485 and $1,585. As of December 31, 2016 and 2015, we estimated that it was probable we would be obligated to perform on certain of these commitments with net amounts payable to customers totaling $126 and $240 and the fair value of the related trade-in aircraft was $126 and $240.

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Financing Commitments

Financing commitments related to aircraft on order, including options and those proposed in sales campaigns, and refinancing of delivered aircraft, totaled $14,847 and $16,283 as of December 31, 2016 and 2015. The estimated earliest potential funding dates for these commitments as of December 31, 2016 are as follows:

	Total
2017	$2,432
2018	3,500
2019	3,374
2020	2,022
2021	1,471
Thereafter	2,048
	$14,847

As of December 31, 2016, all of these financing commitments related 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.

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 $4,701 and $4,968 as of December 31, 2016 and 2015.

Commitments to ULA

We and Lockheed Martin Corporation have each committed to provide ULA with additional capital contributions in the event ULA does not have sufficient funds to make a required payment to us under an inventory supply agreement. As of December 31, 2016, ULA’s total remaining obligation to Boeing under the inventory supply agreement was $120. See Note 6.

F/A-18

At December 31, 2016, our backlog included 23 F/A-18 aircraft under contract with the U.S. Navy and funding has been authorized and appropriated for an additional 12 aircraft. In addition, Kuwait has requested up to 40 aircraft. We have begun work or authorized suppliers to begin working on aircraft beyond those already in backlog in anticipation of these future orders. At December 31, 2016, we had $57 of capitalized precontract costs and $790 of potential termination liabilities to suppliers associated with F/A-18 aircraft.

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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, 2016 and 2015, the cash surrender value was $483 and $487 and the total loans were $456 and $456. 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, 2016 and 2015.

United States Government Defense Environment Overview

The new U.S. administration and key members of the 115th Congress have expressed a general desire to reverse the effects of the budgetary reductions of the past several years. However, the Budget Control Act of 2011 (The Act), which mandated limits on U.S. government discretionary spending, remains in effect through the 2021 government fiscal year causing budget uncertainty and continued risk of future sequestration cuts.

In addition, there continues to be uncertainty with respect to program-level appropriations for the U.S. Department of Defense (U.S. DoD) and other government agencies, including the National Aeronautics and Space Administration (NASA), within the overall budgetary framework described above. Future budget cuts or investment priority changes could result in reductions, cancellations and/or delays of existing contracts or programs. Any of these impacts could have a material effect on the results of the Company’s operations, financial position and/or cash flows.

Funding timeliness also remains a risk as the federal government is currently operating under a continuing resolution that expires on April 28, 2017. If Congress is unable to pass appropriations bills before the continuing resolution expires, a government shutdown could result which may have impacts above and beyond those resulting from budget cuts, sequestration impacts or program-level appropriations. For example, requirements to furlough employees in the U.S. DoD or other government agencies could result in payment delays, impair our ability to perform work on existing contracts, and/or negatively impact future orders.

BDS 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. BDS fixed-price contracts with significant development work include Commercial Crew, Saudi F-15, USAF KC-46A Tanker and commercial and military satellites. The operational and technical complexities of these contracts create financial risk, which could trigger termination provisions, order cancellations or other financially significant exposure. Changes to cost and revenue estimates could result in lower margins or material charges for reach-forward losses. For example, during 2016, we have recorded additional reach-forward losses of $1,128 on the KC-46A Tanker program and a charge of $162 resulting from a reach-forward loss of $38 on the Commercial Crew Program. Moreover, both of these programs remain subject to additional reach-forward losses if we experience further technical or quality issues, schedule delays, or increased costs.

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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 valued at $4.9 billion and involves highly complex designs and systems integration. In August 2016, the USAF authorized LRIP lots for 7 and 12 aircraft valued at $2.8 billion. At December 31, 2016, we had approximately $311 of capitalized precontract costs and $1,016 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.

Russia/Ukraine

We continue to monitor political unrest involving Russia and Ukraine, where we and some of our suppliers source titanium products and/or have operations. A number of our commercial customers also have operations in Russia and Ukraine. To date, we have not experienced any significant disruptions to production or deliveries. Should suppliers or customers experience disruption, our production and/or deliveries could be materially impacted.

747 Program

Lower-than-expected demand for large commercial passenger and freighter aircraft and slower-than-expected growth of global freight traffic have continued to drive market uncertainties, pricing pressures and fewer orders than anticipated. As a result, during 2016, we canceled previous plans to return to a production rate of 1.0 aircraft per month beginning in 2019, resulting in a reduction in the program accounting quantity from 1,574 to 1,555 aircraft. This reduction in the program accounting quantity, together with lower anticipated revenues from future sales and higher costs associated with producing fewer airplanes, resulted in a reach-forward loss of $1,188 in the second quarter. We previously recognized reach-forward losses of $885 and $70 during the second half of 2015 and the first quarter of 2016, respectively, related to the prior decision to reduce the production rate to 0.5 per month and lower estimated revenue from future sales due to ongoing pricing and market pressures. We reduced the rate from 1.0 to 0.5 per month in September 2016. The adjusted program accounting quantity includes 26 undelivered aircraft, currently scheduled to be produced through 2019. We continue to have a number of completed aircraft in inventory as well as unsold production positions and we remain focused on obtaining additional orders and implementing cost-reduction efforts. If we are unable to obtain sufficient orders and/or market, production and other risks cannot be mitigated, we could record additional losses that may be material, and it is reasonably possible that we could decide to end production of the 747.

787 Program

The 787 program continued to have near breakeven gross margins. The combination of production challenges, change incorporation on early build aircraft, schedule delays, customer and supplier impacts and changes to price escalation factors has created significant pressure on program profitability. We are continuing to monitor wide-body demand and if sufficient orders do not materialize during the next several quarters we may consider appropriate adjustments to planned production rates. If risks related to these challenges, together with risks associated with planned production rates and productivity improvements,

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supply chain management or introducing or manufacturing the 787-10 derivative as scheduled cannot be mitigated, the program could record a reach-forward loss that may be material.

Note 12 – 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,	2016	2015	2016	2015	2016	2015
Contingent repurchase commitments	$1,306	$1,529	$1,306	$1,510	$9	$7
Indemnifications to ULA:						
Contributed Delta program launch inventory	77	107				
Contract pricing	261	261			7	7
Other Delta contracts	216	231			5	5
Credit guarantees	29	30	27	27	2	2

Contingent Repurchase Commitments The 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.

Indemnifications to ULA In 2006, we agreed to indemnify ULA through December 31, 2020 against potential non-recoverability and non-allowability of $1,360 of Boeing Delta launch program inventory included in contributed assets plus $1,860 of inventory subject to an inventory supply agreement which ends on March 31, 2021. Since inception, ULA has consumed $1,283 of the $1,360 of inventory that was contributed by us and has yet to consume $77. Under the inventory supply agreement, we have recorded revenues and cost of sales of $1,472 through December 31, 2016. ULA has made payments of $1,740 to us under the inventory supply agreement and we have made $63 of net indemnification payments to ULA.

We agreed to indemnify ULA against potential losses that ULA may incur in the event ULA is unable to obtain certain additional contract pricing from the USAF for four satellite missions. In 2009, ULA filed a complaint before the Armed Services Board of Contract Appeals (ASBCA) for a contract adjustment for the price of two of these missions, followed in 2011 by a subsequent notice of appeal with respect to a third mission. The USAF did not exercise an option for a fourth mission prior to the expiration of the contract. During the second quarter of 2016, the ASBCA ruled that ULA is entitled to additional contract pricing for each of the three missions and remanded to the parties to negotiate appropriate pricing. During the fourth quarter of 2016, the USAF appealed the ASBCA’s ruling. If the USAF’s appeal of the ASBCA's ruling is successful, and ULA is ultimately unsuccessful in obtaining additional pricing, we may be responsible for an indemnification payment up to $261 and may record up to $277 in pre-tax losses associated with the three missions.

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Potential payments for Other Delta contracts include $85 related to deferred support costs and $91 related to deferred production costs. In June 2011, the Defense Contract Management Agency (DCMA) notified ULA that it had determined that $271 of deferred support costs are not recoverable under government contracts. In December 2011, the DCMA notified ULA of the potential non-recoverability of an additional $114 of deferred production costs. ULA and Boeing believe that all costs are recoverable and in November 2011, ULA filed a certified claim with the USAF for collection of deferred support and production costs. The USAF issued a final decision denying ULA's certified claim in May 2012. On June 14, 2012, Boeing and ULA filed a suit in the Court of Federal Claims seeking recovery of the deferred support and production costs from the U.S. government. On November 9, 2012, the U.S. government filed an answer to our claim and asserted a counterclaim for credits that it alleges were offset by deferred support cost invoices. We believe that the U.S. government's counterclaim is without merit, and have filed an answer challenging it on multiple grounds. The litigation is in the discovery phase and the Court has not yet set a trial date. If, contrary to our belief, it is determined that some or all of the deferred support or production costs are not recoverable, we could be required to record pre-tax losses and make indemnification payments to ULA for up to $317 of the costs questioned by the DCMA.

Other Indemnifications In conjunction with our sales of Electron Dynamic Devices, Inc. and Rocketdyne Propulsion and Power businesses and our Commercial Airplanes 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 11.

Credit Guarantees We have issued credit guarantees, principally to facilitate the sale and/or financing of commercial aircraft. Under these arrangements, we are obligated to make payments to a guaranteed party in the event that lease or loan payments are not made by the original lessee or debtor or certain specified services are not performed. A substantial portion of these guarantees has been extended on behalf of original lessees or debtors with less than investment-grade credit. Our commercial aircraft credit guarantees are collateralized by the underlying commercial aircraft and certain other assets. Current outstanding credit guarantees expire within the next four years.

Industrial Revenue Bonds

Industrial Revenue Bonds (IRB) issued by the City of Wichita and St. Louis County were used to finance the purchase and/or construction of real and personal property at our Wichita and St. Louis sites. Tax benefits associated with IRBs include a ten-year property tax abatement and a sales tax exemption from the Kansas Department of Revenue, and 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.

During 2016, the City of Wichita IRBs were settled. As of December 31, 2016 and 2015, the assets and liabilities associated with the IRBs were $64 and $584.

Note 13 – Debt

On May 18, 2016, we issued $1,200 of fixed rate senior notes consisting of $400 due June 15, 2023 that bear an annual interest rate of 1.875%, $400 due June 15, 2026 that bear an annual interest rate of 2.25%, and $400 due June 15, 2046 that bear an annual interest rate of 3.375%. The notes are unsecured senior obligations and rank equally in right of payment with our existing and future unsecured and unsubordinated

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indebtedness. The net proceeds of the issuance totaled $1,170, after deducting underwriting discounts, commissions and offering expenses.

Interest incurred, including amounts capitalized, was $535, $497 and $504 for the years ended December 31, 2016, 2015 and 2014, respectively. Interest expense recorded by BCC is reflected as Boeing Capital interest expense on our Consolidated Statements of Operations. Total Company interest payments were $523, $488 and $511 for the years ended December 31, 2016, 2015 and 2014, respectively.

We have $5,000 currently available under credit line agreements, of which $2,480 is a 364-day revolving credit facility expiring in November 2017, $2,370 expires in November 2021, $90 expires in November 2019 and $60 expires in November 2017. 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:

	2016	2015
Unsecured debt securities	$255	$1,004
Non-recourse debt and notes	33	36
Capital lease obligations	57	53
Other notes	39	141
Total	$384	$1,234

Debt at December 31 consisted of the following:

	2016	2015
Unsecured debt securities		
Variable rate: 3-month USD LIBOR plus 12.5 basis points due 2017	$250	$250
0.95% - 4.88% due through 2046	5,250	5,075
5.88% - 6.88% due through 2043	2,383	2,381
7.25% - 8.75% due through 2043	1,641	1,645
Non-recourse debt and notes		
6.98% - 7.38% notes due through 2021	127	163
Capital lease obligations due through 2024	138	150
Other notes	163	300
Total debt	$9,952	$9,964

Total debt is attributable to:

	2016	2015
BCC	$2,864	$2,355
Other Boeing	7,088	7,609
Total debt	$9,952	$9,964

At December 31, 2016, $127 of debt (non-recourse debt, notes and capital lease obligations) was collateralized by customer financing assets totaling $259.

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

	2017	2018	2019	2020	2021
Scheduled principal payments	$387	$714	$1,261	$1,134	$719

Note 14 – Postretirement Plans

The majority 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.

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 half those retirees 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 cost were as follows:

	Pension			Other Postretirement Benefits		
Years ended December 31,	2016	2015	2014	2016	2015	2014
Service cost	$604	$1,764	$1,661	$128	$140	$129
Interest cost	3,050	2,990	3,058	262	248	289
Expected return on plan assets	(3,999)	(4,031)	(4,169)	(8)	(8)	(8)
Amortization of prior service costs/(credits)	38	196	177	(126)	(136)	(144)
Recognized net actuarial loss	790	1,577	1,020	22	31	8
Settlement/curtailment/other losses	40	290	461		10	1
Net periodic benefit cost	$523	$2,786	$2,208	$278	$285	$275
Net periodic benefit cost included in Earnings from operations	$1,979	$2,366	$3,215	$274	$288	$287

In 2016, we recorded charges of $40 related to curtailments and other benefit changes associated with certain of our defined benefit plans.

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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, 2016 and 2015. 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	
	2016	2015	2016	2015
Change in benefit obligation				
Beginning balance	$74,388	$78,391	$7,138	$7,306
Service cost	604	1,764	128	140
Interest cost	3,050	2,990	262	248
Plan participants' contributions	1	5		
Amendments	6	(1,379)	(57)	(19)
Actuarial (gain)/loss	2,669	(3,505)	(612)	(89)
Settlement/curtailment/other	(63)	(457)		10
Gross benefits paid	(3,903)	(3,382)	(469)	(486)
Subsidies			37	43
Exchange rate adjustment	(7)	(39)	4	(15)
Ending balance	$76,745	$74,388	$6,431	$7,138
Change in plan assets				
Beginning balance at fair value	$56,514	$61,119	$132	$141
Actual return/(loss) on plan assets	3,885	(701)	7	1
Company contribution	113	59	6	5
Plan participants' contributions	1	5	7	5
Settlement payments	(24)	(649)		
Benefits paid	(3,791)	(3,284)	(18)	(20)
Exchange rate adjustment	(6)	(35)		
Ending balance at fair value	$56,692	$56,514	$134	$132
Amounts recognized in statement of financial position at December 31 consist of:				
Other assets	$3	$10		
Other accrued liabilities	(113)	(101)	($381)	($390)
Accrued retiree health care			(5,916)	(6,616)
Accrued pension plan liability, net	(19,943)	(17,783)		
Net amount recognized	($20,053)	($17,874)	($6,297)	($7,006)

Amounts recognized in Accumulated other comprehensive loss at December 31 were as follows:

	Pension		Other Postretirement Benefits	
	2016	2015	2016	2015
Net actuarial loss	$22,802	$20,871	$152	$781
Prior service (credits)	(1,243)	(1,195)	(328)	(397)
Total recognized in Accumulated other comprehensive loss	$21,559	$19,676	($176)	$384

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The estimated amount that will be amortized from Accumulated other comprehensive loss into net periodic benefit cost during the year ending December 31, 2017 is as follows:

	Pension	Other Postretirement Benefits
Recognized net actuarial loss	$801	$10
Amortization of prior service (credits)	(41)	(137)
Total	$760	($127)

The accumulated benefit obligation (ABO) for all pension plans was $74,240 and $72,330 at December 31, 2016 and 2015. Key information for our plans with ABO in excess of plan assets as of December 31 was as follows:

	2016	2015
Projected benefit obligation	$76,586	$74,188
Accumulated benefit obligation	74,081	72,121
Fair value of plan assets	56,530	56,306

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,	2016	2015	2014
Discount rate:			
Pension	4.00 %	4.20 %	3.90 %
Other postretirement benefits	3.70 %	3.80 %	3.50 %
Expected return on plan assets	6.80 %	7.00 %	7.00 %
Rate of compensation increase	4.40 %	4.00 %	3.80 %

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. A portfolio of about 400 bonds is used to construct the yield curve. Since corporate bond yields are generally not available at maturities beyond 30 years, it is assumed that spot rates will remain level beyond that 30-year point. The present value of each plan's benefits is calculated by applying the discount rates to projected benefit cash flows. All bonds are U.S. issues, with a minimum outstanding of $50.

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 recent trust performance and 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, 2016, the MRVA was approximately $2,352 greater than the fair market value of assets.

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Assumed health care cost trend rates were as follows:

December 31,	2016	2015	2014
Health care cost trend rate assumed next year	6.50 %	6.50 %	7.00 %
Ultimate trend rate	5.00 %	5.00 %	5.00 %
Year that trend reached ultimate rate	2021	2021	2018

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. To determine the health care cost trend rates we look at a combination of information including ongoing claims cost monitoring, annual statistical analyses of claims data, reconciliation of forecast claims against actual claims, review of trend assumptions of other plan sponsors and national health trends, and adjustments for plan design changes, workforce changes, and changes in plan participant behavior. A one-percentage-point change in assumed health care cost trend rates would have the following effect:

	Increase	Decrease
Effect on total of service and interest cost	$48	($40)
Effect on postretirement benefit obligation	586	(496)

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. We identify investment benchmarks 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 on a monthly basis.

The actual and target allocations by asset class for the pension assets at December 31 were as follows:

	Actual Allocations		Target Allocations	
Asset Class	2016	2015	2016	2015
Fixed income	48 %	48 %	47 %	47 %
Global equity	28	28	29	29
Private equity	5	5	5	5
Real estate and real assets	9	9	9	9
Hedge funds	10	10	10	10
Total	100 %	100 %	100 %	100 %

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Fixed income securities are invested primarily in a diversified portfolio of long duration instruments. Global equity securities are invested in a diversified portfolio of U.S. and non-U.S. companies, across various industries and market capitalizations.

Real estate and real assets include global private investments that may be held through an investment 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. Private equity investment vehicles are primarily limited partnerships (LPs) and fund-of-funds that mainly invest in U.S. and non-U.S. leveraged buyout, venture capital and special situation strategies.

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, long-short and multi-strategy.

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 plan assets, derivative net notional amounts were 6.0% and 13.1% for fixed income, including to-be-announced mortgage-backed securities and treasury forwards, and 1.2% and 4.0% for global equity and commodities at December 31, 2016 and 2015.

Risk Management In managing the plan 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, 2016 and 2015. 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.

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	December 31, 2016				December 31, 2015			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Fixed income securities:								
Corporate	$16,730		$16,723	$7	$16,339		$16,336	$3
U.S. government and agencies	4,876		4,875	1	4,801		4,800	1
Mortgage backed and asset backed	706		370	336	830		382	448
Municipal	1,398		1,398		1,475		1,475	
Sovereign	782		782		907		907	
Other	74	$9	65		83	$9	74	
Derivatives:								
Assets	40		40		25		25	
Liabilities	(38)		(38)		(67)		(67)	
Cash equivalents and other short-term investments	1,037		1,037		1,015		1,015	
Equity securities:								
U.S. common and preferred stock	5,374	5,373		1	5,165	5,164		1
Non-U.S. common and preferred stock	5,746	5,746			5,712	5,710		2
Derivatives:								
Assets	6		6		11		11	
Liabilities	(8)		(8)		(3)		(3)	
Private equity	—				3			3
Real estate and real assets:								
Real estate	468	468			447	447		
Real assets	672	372	295	5	632	351	275	6
Derivatives:								
Assets	4		4		3		3	
Liabilities	(1)		(1)		(2)		(2)	
Total	$37,866	$11,968	$25,548	$350	$37,376	$11,681	$25,231	$464
Fixed income common/collective/pooled funds	$1,625				$1,753			
Fixed income other	227				247			
Equity common/collective pooled funds	4,962				4,948			
Private equity	2,639				2,611			
Real estate and real assets	3,625				3,637			
Hedge funds	5,441				5,478			
Total investments measured at NAV as a practical expedient	$18,519				$18,674			
Cash	$160				$162			
Receivables	374				435			
Payables	(227)				(133)			
Total	$56,692				$56,514			

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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 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 NAV valuations are based on 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 funds consist of direct hedge funds and fund-of-fund limited liability company (LLC) structures. For direct hedge funds the NAVs are generally based on 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. The NAVs of the fund-of-funds are based on the NAVs of the underlying hedge funds as well as any cash and accruals held at the fund-of-fund level. Redemptions in hedge funds are based on specific terms and conditions of the individual funds.

Investments in private equity, private debt, real estate, real assets, and hedge funds are primarily calculated and reported by the General Partner (GP), 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.

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The following tables present a reconciliation of Level 3 assets (excluding investments which are valued using NAVs as a practical expedient) held during the years ended December 31, 2016 and 2015. Transfers into and out of Level 3 are reported at the beginning-of-year values.

	January 1 2016 Balance	Net Realized and Unrealized Gains/(Losses)	Net Purchases, Issuances and Settlements	Net Transfers (Out of) Level 3	December 31 2016 Balance
Fixed income securities:					
Corporate [1]	$11		($1)	($3)	$7
U.S. government and agencies	1				1
Mortgage backed and asset backed [1]	440	$7	(93)	(18)	336
Equity securities:					
U.S. common and preferred stock	1				1
Non-U.S. common and preferred stock	2		(2)		—
Private equity	3	(3)			—
Real assets	6		(1)		5
Total	$464	$4	($97)	($21)	$350

	January 1 2015 Balance	Net Realized and Unrealized (Losses)	Net Purchases, Issuances and Settlements	Net Transfers Into Level 3	December 31 2015 Balance
Fixed income securities:					
Corporate [2]	$1		$1	$1	$3
U.S. government and agencies [2]	1				$1
Mortgage backed and asset backed [2]	611	($9)	(157)	3	448
Other		(3)	3		—
Equity securities:					
U.S. common and preferred stock				1	1
Non-U.S. common and preferred stock	1		(2)	3	2
Private equity	3				3
Real assets	4		2		6
Total	$621	($12)	($153)	$8	$464

(1) Certain fixed income securities were reclassified from mortgage backed and asset backed to corporate on January 1, 2016.

(2) Certain fixed income securities were reclassified from corporate and mortgage backed and asset backed to U.S. government and agencies on January 1, 2015.

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The changes in unrealized gains/(losses) for Level 3 mortgage backed and asset backed fixed income securities still held at December 31, 2016 and 2015 were $4 and ($10).

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-U.S. pension plans, are expected to be $200 in 2017. In 2017 we expect to make contributions to our pension plans of approximately $500.

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)	2017	2018	2019	2020	2021	2022-2026
Pensions	$4,558	$4,622	$4,611	$4,662	$4,637	$23,108
Other postretirement benefits:						
Gross benefits paid	498	515	530	548	553	2,654
Subsidies	(32)	(31)	(31)	(31)	(30)	(143)
Net other postretirement benefits	$466	$484	$499	$517	$523	$2,511

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 $1,413, $768 and $764 in 2016, 2015 and 2014, respectively.

Note 15 – 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.

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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 2017.

Share-based plans expense is primarily included in General and administrative expense since it is incentive compensation issued primarily to our executives. The share-based plans expense and related income tax benefit were as follows:

Years ended December 31,	2016	2015	2014
Stock options	$4	$30	$62
Restricted stock units and other awards	189	160	133
Share-based plans expense	$193	$190	$195
Income tax benefit	$69	$68	$70

Stock Options

We discontinued granting options in 2014, replacing them with performance-based restricted stock units. 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 ten years after the date of grant. The stock options vest over a period of three years and were fully vested at December 31, 2016, except for 6,221 shares which vested in January 2017.

Stock option activity for the year ended December 31, 2016 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	12,925,944	$73.44		
Exercised	(4,270,336)	75.04		
Forfeited	(6,270)	84.20		
Expired	(2,726)	74.43		
Outstanding at end of year	8,646,612	$72.64	4.67	$718
Exercisable at end of year	8,640,391	$72.60	4.67	$718

The total intrinsic value of options exercised during the years ended December 31, 2016, 2015 and 2014 was $265, $385 and $250, respectively. Cash received from options exercised during the years ended December 31, 2016, 2015 and 2014 was $321, $399 and $343 with a related tax benefit of $94, $135 and $87, respectively, derived from the compensation deductions resulting from these option exercises. The grant date fair value of stock options vested during the years ended December 31, 2016, 2015 and 2014 was $27, $56 and $87, respectively.

Restricted Stock Units

In February 2016, 2015 and 2014, we granted to our executives 777,837, 590,778 and 695,651 restricted stock units (RSUs) as part of our long-term incentive program with grant date fair values of $117.50, $154.64 and $129.58 per unit, respectively. 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 executive terminates employment because of retirement, involuntary layoff, disability, or death, the employee (or beneficiary)

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will 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. In addition to RSUs awarded under our long-term incentive program, 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, 2016 was as follows:

	Long-Term Incentive Program	Other
Number of units:		
Outstanding at beginning of year	2,346,640	1,121,001
Granted	811,317	391,961
Dividends	66,609	35,848
Forfeited	(165,111)	(46,115)
Distributed	(1,244,811)	(424,775)
Outstanding at end of year	1,814,644	1,077,920
Unrecognized compensation cost	$92	$58
Weighted average remaining contractual life (years)	1.8	3.8

The number of vested but undistributed RSUs at December 31, 2016 was not significant.

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 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, but will not exceed 400% of the initial value (excluding dividend equivalent credits). 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, involuntary 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 2016, 2015 and 2014, we granted to our executives 721,176, 556,203 and 662,215 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
2016	2/22/2016	3 years	22.44%	0.92%	126.74
2015	2/23/2015	3 years	20.35%	1.03%	164.26
2014	2/24/2014	3 years	24.2%	0.72%	136.12

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PBRSU activity for the year ended December 31, 2016 was as follows:

	Long-Term Incentive Program
Number of units:	
Outstanding at beginning of year	1,123,035
Granted	721,176
Dividends	52,540
Forfeited	(150,240)
Outstanding at end of year	1,746,511
Unrecognized compensation cost	$86
Weighted average remaining contractual life (years)	1.8

Other Compensation Arrangements

Performance Awards

Performance Awards 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, 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.

During 2016, 2015 and 2014, we granted Performance Awards to our executives as part of our long-term incentive program with the payout based on the achievement of financial goals for each three-year period following the grant date. The minimum payout amount is $0 and the maximum amount we could be required to pay out for the 2016, 2015 and 2014 Performance Awards is $338, $322 and $315, respectively. The 2014 grant is expected to be paid out in cash in March 2017.

Deferred Compensation

The Company has a deferred compensation plan which permits executives to defer receipt of a portion of their salary, bonus, and certain other incentive awards. Participants can diversify deferred compensation among 23 investment funds including a Boeing stock unit account.

Total expense related to deferred compensation was $46, $63 and $44 in 2016, 2015 and 2014, respectively. As of December 31, 2016 and 2015, the deferred compensation liability which is being marked to market was $1,126 and $1,191.

Note 16 – Shareholders' Equity

On December 12, 2016, the Board approved a new repurchase plan for up to $14,000 of common stock, replacing the previously authorized program. The program will expire when we have used all authorized funds or is otherwise terminated.

As of December 31, 2016 and 2015, 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.

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Changes in Share Balances

The following table shows changes in each class of shares:

	Common Stock	Treasury Stock
Balance at January 1, 2014	1,012,261,159	264,882,461
Issued		(6,719,270)
Acquired		47,370,415
Balance at December 31, 2014	1,012,261,159	305,533,606
Issued		(7,288,113)
Acquired		47,391,861
Balance at December 31, 2015	1,012,261,159	345,637,354
Issued		(6,376,868)
Acquired		55,849,082
Balance at December 31, 2016	1,012,261,159	395,109,568

Accumulated Other Comprehensive Loss

Changes in Accumulated other comprehensive income/(loss) (AOCI) by component for the years ended December 31, 2016, 2015 and 2014 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 [1]
Balance at January 1, 2014	$150	($8)	($6)	($10,030)	($9,894)
Other comprehensive income/(loss) before reclassifications	(97)		(137)	(4,644)	(4,878)
Amounts reclassified from AOCI			7	862 [2]	869
Net current period Other comprehensive income/(loss)	(97)		(130)	(3,782)	(4,009)
Balance at December 31, 2014	$53	($8)	($136)	($13,812)	($13,903)
Other comprehensive income/(loss) before reclassifications	(92)	8	(140)	173	(51)
Amounts reclassified from AOCI			79	1,127 [2]	1,206
Net current period Other comprehensive income/(loss)	(92)	8	(61)	1,300	1,155
Balance at December 31, 2015	($39)	$—	($197)	($12,512)	($12,748)
Other comprehensive income/(loss) before reclassifications	(104)	($2)	(8)	(1,320)	(1,434)
Amounts reclassified from AOCI			78	481 [2]	559
Net current period Other comprehensive income/(loss)	(104)	(2)	70	(839)	(875)
Balance at December 31, 2016	($143)	($2)	($127)	($13,351)	($13,623)

(1) Net of tax.

(2) Primarily relates to amortization of actuarial losses for the years ended December 31, 2016, 2015, and 2014 totaling $524, $1,038, and $661 (net of tax of ($288), ($570), and ($367)), respectively. These are included in the net periodic pension cost of which a portion is allocated to production as inventoried costs. See Note 14.

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Note 17 – 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 2022. We use commodity derivatives, such as swaps and fixed-price purchase commitments to hedge against potentially unfavorable price changes for items used in production. Our commodity contracts hedge forecasted transactions through 2020.

Fair Value Hedges

Interest rate swaps under which we agree to pay variable rates of interest are designated as fair value hedges of fixed-rate debt. The net change in fair value of the derivatives and the hedged items is reported in Boeing Capital interest expense.

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 international 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 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[1]		Other assets		Accrued liabilities	
	2016	2015	2016	2015	2016	2015
Derivatives designated as hedging instruments:						
Foreign exchange contracts	$2,584	$2,727	$34	$23	($225)	($304)
Interest rate contracts	125	125	6	9		
Commodity contracts	53	40	7	2	(5)	(13)
Derivatives not receiving hedge accounting treatment:						
Foreign exchange contracts	465	436	21	4	(17)	(11)
Commodity contracts	648	725				
Total derivatives	$3,875	$4,053	68	38	(247)	(328)
Netting arrangements			(45)	(23)	45	23
Net recorded balance			$23	$15	($202)	($305)

[1] Notional amounts represent the gross contract/notional amount of the derivatives outstanding.

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Gains/(losses) associated with our cash flow and undesignated hedging transactions and their effect on Other comprehensive income/(loss) and Net earnings were as follows:

Years ended December 31,	2016	2015
Effective portion recognized in Other comprehensive income/(loss), net of taxes:		
Foreign exchange contracts	($9)	($136)
Commodity contracts	1	(4)
Effective portion reclassified out of Accumulated other comprehensive loss into earnings, net of taxes:		
Foreign exchange contracts	(70)	(67)
Commodity contracts	(8)	(12)
Forward points recognized in Other income, net:		
Foreign exchange contracts	13	12
Undesignated derivatives recognized in Other income, net:		
Foreign exchange contracts	(2)	(1)

Based on our portfolio of cash flow hedges, we expect to reclassify losses of $101 (pre-tax) out of Accumulated other comprehensive loss into earnings during the next 12 months. Ineffectiveness related to our hedges recognized in Other income was insignificant for the years ended December 31, 2016 and 2015.

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, 2016 was $46. At December 31, 2016, there was no collateral posted related to our derivatives.

Note 18 – Significant Group Concentrations of Risk

Credit Risk

Financial instruments involving potential credit risk are predominantly with commercial aircraft customers and the U.S. government. Of the $13,108 in gross accounts receivable and gross customer financing included in the Consolidated Statements of Financial Position as of December 31, 2016, $6,380 related predominantly to commercial aircraft customers ($2,175 of accounts receivable and $4,205 of customer financing) and $4,639 related to the U.S. government.

Of the $4,211 in gross customer financing, $2,760 related to customers we believe have less than investment-grade credit including Volga Dnepr Affiliates, Silk Way Airlines and American Airlines who were associated with 18%, 9% and 6%, respectively, of our financing portfolio. Financing for aircraft is collateralized by security in the related asset and in some instances security in other assets as well.

Other Risk

As of December 31, 2016, approximately 38% of our total workforce was represented by collective bargaining agreements.

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Note 19 – 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, 2016			December 31, 2015		
	Total	Level 1	Level 2	Total	Level 1	Level 2
Assets						
Money market funds	$2,858	$2,858		$4,504	$4,504	
Available-for-sale investments:						
Commercial paper	162		162	87		87
Corporate notes	271		271	79		79
U.S. government agencies	63		63	83		83
Other	46	46		20	20	
Derivatives	23		23	15		$15
Total assets	$3,423	$2,904	$519	$4,788	$4,524	$264
Liabilities						
Derivatives	($202)		($202)	($305)		($305)
Total liabilities	($202)		($202)	($305)		($305)

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, commodity and interest rate 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. The fair value of our interest rate swaps is derived from a discounted cash flow analysis based on the terms of the contract and the interest rate curve.

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:

	2016		2015	
	Fair Value	Total Losses	Fair Value	Total Losses
Operating lease equipment	$84	($52)	$270	($159)
Property, plant and equipment	10	(9)	8	(6)
Other assets and Acquired intangible assets	12	(10)		
Total	$106	($71)	$278	($165)

The fair value of the impaired operating lease equipment 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

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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. Property, plant and equipment and Acquired intangible assets were primarily valued using an income approach based on the discounted cash flows associated with the underlying assets.

For Level 3 assets that were measured at fair value on a nonrecurring basis during the year ended December 31, 2016, 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
Operating lease equipment	$84	Market approach	Aircraft value publications	$158 - $264[1] Median $212
			Aircraft condition adjustments	($128) - $0[2] Net ($128)

(1) 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.

(2) 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, 2016				
	Carrying Amount	Total Fair Value	Level 1	Level 2	Level 3
Assets					
Accounts receivable, net	$8,832	$8,830		$8,830	
Notes receivable, net	807	803		803	
Liabilities					
Debt, excluding capital lease obligations	(9,815)	(11,209)		(11,078)	($131)

	December 31, 2015				
	Carrying Amount	Total Fair Value	Level 1	Level 2	Level 3
Assets					
Accounts receivable, net	$8,713	$8,705		$8,705	
Notes receivable, net	255	273		273	
Liabilities					
Debt, excluding capital lease obligations	(9,814)	(11,292)		(11,123)	($169)

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The fair value of Accounts receivable is based on current market rates for loans of the same risk and maturities. 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 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, 2016 and 2015. 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 20 – 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. 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.

Note 21 – Segment Information

We operate in five principal segments: Commercial Airplanes; Boeing Military Aircraft (BMA), Network & Space Systems (N&SS), and Global Services & Support (GS&S), collectively Defense, Space & Security; and Boeing Capital (BCC). All other activities fall within Unallocated items, eliminations and other. See page 54 for the Summary of Business Segment Data, which is an integral part of this note.

The Commercial Airplanes segment develops, produces and markets commercial jet aircraft and provides related support services, principally to the commercial airline industry worldwide.

Our BMA segment is engaged in the research, development, production and modification of manned and unmanned military aircraft and weapons systems for global strike, including fighter aircraft and missile systems; vertical lift including rotorcraft and tilt-rotor aircraft; mobility, surveillance and engagement, including battle management, airborne, anti-submarine, transport and tanker aircraft.

Our N&SS segment is engaged 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.

Our GS&S segment provides customers with mission readiness through total support solutions. Our global services business sustains aircraft and systems with a full spectrum of products and services through integrated logistics, including supply chain management and engineering support; maintenance,

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modification and upgrades for aircraft; and training systems and government services, including pilot and maintenance training.

Our BCC segment facilitates, arranges, structures and provides selective financing solutions for our Boeing customers.

Unallocated items, eliminations and other include common internal services that support Boeing's global business operations, as well as technical and functional capabilities, including information technology, research and development, test and evaluation, technology strategy development, environmental remediation management and intellectual property management. It also includes intercompany guarantees provided to BCC and eliminations of certain sales between BCA, BCC and BDS.

In November 2016, we announced plans for the formation of Boeing Global Services (BGS), which will bring together certain Commercial Aviation Services businesses, currently included in the Commercial Airplanes segment, and certain BDS businesses (primarily those currently included in the GS&S segment). We expect Boeing Global Services to be operational during the second half of 2017. We will continue to report using the existing segment structure until BGS is operational and has discrete financial information that is being provided to the Chief Operating Decision Maker.

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,	2016	2015	2014
Asia, other than China	$10,553	$13,433	$11,900
Europe	13,790	12,248	11,898
China	10,312	12,556	11,029
Middle East	13,297	10,846	9,243
Oceania	1,843	2,601	1,757
Canada	2,076	1,870	1,901
Africa	1,999	1,398	2,596
Latin America, Caribbean and other	1,936	1,875	2,596
Total non-U.S. revenues	55,806	56,827	52,920
United States	38,765	39,287	37,842
Total revenues	$94,571	$96,114	$90,762

Revenues from the U.S. government (including foreign military sales through the U.S. government), primarily recorded at BDS, represented 23%, 27% and 30% of consolidated revenues for 2016, 2015 and 2014, respectively.

Approximately 4% of operating assets were located outside the United States as of December 31, 2016 and 2015. The information in the following tables is derived directly from the segments' internal financial reporting used for corporate management purposes.

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Depreciation and Amortization

Years ended December 31,	2016	2015	2014
Commercial Airplanes	$682	$625	$674
Defense, Space & Security:			
Boeing Military Aircraft	113	142	164
Network & Space Systems	106	106	114
Global Services & Support	73	80	75
Total Defense, Space & Security	292	328	353
Boeing Capital Corporation	83	87	97
Unallocated items, eliminations and other	853	793	782
Total	$1,910	$1,833	$1,906

Capital Expenditures

Years ended December 31,	2016	2015	2014
Commercial Airplanes	$993	$889	$698
Defense, Space & Security:			
Boeing Military Aircraft	161	128	175
Network & Space Systems	63	98	93
Global Services & Support	112	62	68
Total Defense, Space & Security	336	288	336
Unallocated items, eliminations and other	1,284	1,273	1,202
Total	$2,613	$2,450	$2,236

Unallocated capital expenditures relate primarily to assets managed centrally on behalf of the five principal segments.

We recorded Earnings from operations associated with our cost and equity method investments of $46, $64 and $58 in our Commercial Airplanes segment and $257, $210 and $229 in BDS, primarily in our N&SS segment, for the years ended December 31, 2016, 2015 and 2014, respectively.

For segment reporting purposes, we record Commercial Airplanes segment revenues and cost of sales for airplanes transferred to other segments. Such transfers may include airplanes accounted for as operating leases and considered transferred to the BCC segment and airplanes transferred to the BDS segment for further modification prior to delivery to the customer. The revenues and cost of sales for these transfers are eliminated in the Unallocated items and eliminations caption. For segment reporting purposes, we record BDS revenues and cost of sales for the modification performed on airplanes received from Commercial Airplanes when the airplane is delivered to the customer or at the attainment of performance milestones.

Intersegment revenues, eliminated in Unallocated items, eliminations and other, are shown in the following table.

Years ended December 31,	2016	2015	2014
Commercial Airplanes	$2,142	$1,831	$1,822
Boeing Capital	16	15	19
Total	$2,158	$1,846	$1,841

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Unallocated Items, Eliminations and other

Unallocated items, eliminations and other includes costs not attributable to business segments as well as intercompany profit eliminations. 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,	2016	2015	2014
Share-based plans	($66)	($76)	($67)
Deferred compensation	(46)	(63)	(44)
Amortization of previously capitalized interest	(94)	(90)	(72)
Eliminations and other unallocated items	(527)	(511)	(593)
Sub-total	(733)	(740)	(776)
Pension	217	(421)	(1,469)
Postretirement	153	123	82
Pension and Postretirement	370	(298)	(1,387)
Total	($363)	($1,038)	($2,163)

Unallocated Pension and Other Postretirement Benefit Expense

Unallocated pension and other postretirement benefit expense represents the portion of pension and other postretirement benefit costs that are not recognized by business segments for segment reporting purposes. Pension costs, comprising Generally Accepted Accounting Principles in the United States of America (GAAP) service and prior service costs, are allocated to Commercial Airplanes. Pension costs are allocated to BDS 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.

Assets

Segment assets are summarized in the table below.

December 31,	2016	2015
Commercial Airplanes	$55,527	$57,253
Defense, Space & Security:		
Boeing Military Aircraft	6,698	6,793
Network & Space Systems	6,113	6,307
Global Services & Support	4,020	4,567
Total Defense, Space & Security	16,831	17,667
Boeing Capital	4,139	3,492
Unallocated items, eliminations and other	13,500	15,996
Total	$89,997	$94,408

Assets included in Unallocated items, eliminations and other primarily consist of Cash and cash equivalents, Short-term and other investments, Deferred tax assets, capitalized interest and assets held centrally as well as intercompany eliminations.

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Note 22 – Quarterly Financial Data (Unaudited)

	2016				2015			
	4th	3rd	2nd	1st	4th	3rd	2nd	1st
Total revenues	$23,286	$23,898	$24,755	$22,632	$23,573	$25,849	$24,543	$22,149
Total costs and expenses	(19,464)	(19,904)	(22,325)	(19,097)	(20,642)	(21,600)	(21,350)	(18,496)
Earnings from operations	2,183	2,282	(419)	1,788	1,161	2,580	1,683	2,019
Net earnings/(loss)	1,631	2,279	(234)	1,219	1,026	1,704	1,110	1,336
Basic earnings per share	2.63	3.64	(0.37)	1.85	1.52	2.50	1.61	1.89
Diluted earnings per share	2.59	3.60	(0.37)	1.83	1.51	2.47	1.59	1.87
Cash dividends declared per share	2.51		2.18		2.00		1.82	
Common stock sales price per share:								
High	160.07	139.45	137.89	141.70	150.59	149.18	155.50	158.83
Low	130.74	123.96	122.35	102.10	128.56	115.14	138.44	126.18
Quarter end	155.68	131.74	129.87	126.94	144.59	130.95	138.72	150.08

Gross profit is calculated as Total revenues minus Total costs and expenses. Total costs and expenses includes Cost of products, Cost of services and Boeing Capital interest expense.

During the second quarter of 2016, first quarter of 2016 and fourth quarter of 2015, we recorded reach-forward losses of $1,188, $70 and $885, respectively, on the 747 program.

During the second quarter of 2016, we determined that the fourth and fifth flight test aircraft for the 787 program are not commercially saleable, and we reclassified costs of $1,235 associated with these aircraft from 787 program inventory to research and development expense.

During the fourth quarter of 2016, second quarter of 2016, first quarter of 2016, and second quarter of 2015, higher estimated costs to complete the KC-46A Tanker contract for the U.S. Air Force resulted in reach-forward losses of $312, $573, $243 and $835, respectively.

During the third quarter of 2016, delays in completion of engineering and supply chain activities for the Commercial Crew program resulted in a charge of $162.

In the fourth quarter of 2015, we recorded an income tax benefit of $235 related to the reinstatement of the research tax credit for 2015.

During the third quarter of 2016, we recorded an incremental tax benefit of $440 that related to the application of a 2012 Federal Court of Claims decision. We also recorded a tax benefit of $177 as a result of the 2011-2012 federal tax audit settlements.

We increased our quarterly dividend from $0.91 to $1.09 in December 2015 and to $1.42 in December 2016.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
The Boeing Company
Chicago, Illinois

We have audited the accompanying consolidated statements of financial position of The Boeing Company and subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income, equity, and cash flows for each of the three years in the period ended December 31, 2016. The financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of The Boeing Company and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016, 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), the Company's internal control over financial reporting as of December 31, 2016, based on the criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 8, 2017 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ Deloitte & Touche LLP
Chicago, Illinois
February 8, 2017

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
The Boeing Company
Chicago, Illinois

We have audited the internal control over financial reporting of The Boeing Company and subsidiaries (the "Company") as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. 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 conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel 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 the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2016 of the Company and our report dated February 8, 2017 expressed an unqualified opinion on those financial statements.

/s/ Deloitte & Touche LLP
Chicago, Illinois
February 8, 2017

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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, 2016 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, 2016.

Our internal control over financial reporting as of December 31, 2016, 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 2016 that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Item 9B. Other Information

None.

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Part III

Item 10. Directors, Executive Officers and Corporate Governance

Our executive officers and their ages as of February 1, 2017, are as follows:

Name	Age	Principal Occupation or Employment/Other Business Affiliations
Bertrand-Marc Allen	43	Senior Vice President, President of Boeing International since February 2015. Mr. Allen previously served as 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.
Heidi B. Capozzi	47	Senior Vice President, Human Resources since March 2016. Ms. Capozzi previously served as Vice President of Leadership Development, Talent Management and Organization Effectiveness from April 2013 to March 2016; Director of Human Resources for the Airplane Programs division of Commercial Airplanes from April 2011 to April 2013; and Director of Human Resources for the Surveillance and Engagement division of Boeing Military Aircraft from May 2009 to April 2011.
Leanne G. Caret	50	Executive Vice President, President and Chief Executive Officer of Boeing Defense, Space & Security (BDS) 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.
Theodore Colbert III	43	Chief Information Officer and Senior Vice President, Information & Analytics since April 2016. Mr. Colbert previously served as 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.
Raymond L. Conner	61	Vice Chairman since November 2016. Mr. Conner joined Boeing in 1977, and his previous positions include Vice Chairman, President and Chief Executive Officer of Commercial Airplanes from December 2013 to November 2016; Executive Vice President, President and Chief Executive Officer of Commercial Airplanes from June 2012 to December 2013; Senior Vice President of Sales and Customer Support of Commercial Airplanes from August 2011 to June 2012; Vice President and General Manager, Supply Chain Management and Operations of Commercial Airplanes from December 2008 to August 2011; Vice President of Sales, Commercial Airplanes from December 2007 to December 2008; and Vice President and General Manager of the 777 Program. Mr. Conner serves on the board of Adient plc.

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Name	Age	Principal Occupation or Employment/Other Business Affiliations
Stanley A. Deal	52	Executive Vice President, President and Chief Executive Officer, Boeing Global Services since November 2016. Mr. Deal joined Boeing in 1986, and his previous positions include 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 Asia Pacific Sales from December 2006 to January 2010; and Vice President of Supplier Management from February 2010 to August 2011.
Thomas J. Downey	52	Senior Vice President, Communications since January 2007. Mr. Downey joined Boeing in 1986, and his previous positions include Vice President, Corporate Communications; Vice President, Commercial Airplanes Communications; Corporate Vice President, Internal and Executive Communications; and General Manager of Communications and Community Relations for Military Aircraft and Missile Systems unit.
Scott A. Fancher	58	Senior Vice President, Program Management, Integration & Development Programs since April 2016. Mr. Fancher previously served as Senior Vice President and General Manager of Airplane Development from November 2012 to April 2016; Vice President and General Manager of the 777 and 777X programs from February 2012 to November 2012; and Vice President and General Manager of the 787 Dreamliner program from December 2008 to February 2012.
Gregory L. Hyslop	58	Chief Technology Officer, Senior Vice President, Boeing Engineering, Test & Technology since July 2016. Mr. Hyslop was named Senior Vice President, Boeing Engineering, Test & Technology in March 2016, and his previous positions include Vice President and General Manager of Boeing Research & 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.
Timothy J. Keating	55	Senior Vice President, Government Operations since joining Boeing in June 2008. Mr. Keating served as Senior Vice President, Global Government Relations at Honeywell International Inc. from October 2002 to May 2008. Prior thereto, Mr. Keating was Chairman of the Board and Managing Partner of Timmons and Company (a Washington, D.C. lobbying firm).
J. Michael Luttig	62	Executive Vice President, General Counsel since April 2009. Mr. Luttig joined Boeing in May 2006 as Senior Vice President, General Counsel. From October 1991 to May 2006, he served on the United States Court of Appeals for the Fourth Circuit. Mr. Luttig previously served as Assistant Attorney General of the United States, Counselor to the Attorney General at the Department of Justice and Principal Deputy Assistant Attorney General at the Department of Justice and was associated with Davis Polk & Wardwell LLP. Mr. Luttig serves as Director, Franklin Templeton Mutual Funds.
Kevin G. McAllister	53	Executive Vice President, President and Chief Executive Officer, Boeing Commercial Airplanes since November 2016. Mr. McAllister served as President and Chief Executive Officer of GE Aviation Services from January 2014 to November 2016 and Vice President, Global Sales and Marketing of GE Aviation Services from June 2008 to January 2014.

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Name	Age	Principal Occupation or Employment/Other Business Affiliations
Dennis A. Muilenburg	53	Chairman, President and Chief Executive Officer since March 2016. Mr. Muilenburg was named President and Chief Executive Officer in July 2015. He joined Boeing in 1985, and his previous positions include Vice Chairman, President and Chief Operating Officer from December 2013 to July 2015; Executive Vice President, President and Chief Executive Officer of BDS from September 2009 to December 2013; President of Global Services & Support from February 2008 to August 2009; Vice President and General Manager of Combat Systems from May 2006 to February 2008; and Vice President and Program Manager for Future Combat Systems. Mr. Muilenburg also serves on the board of Caterpillar Inc.
Diana L. Sands	51	Senior Vice President, Office of Internal Governance and Administration since March 2016. Ms. Sands previously served as Senior Vice President, Office of Internal Governance from April 2014 to March 2016; Vice President of Finance and Corporate Controller from February 2012 to April 2014 and Vice President of Investor Relations, Financial Planning & Analysis from February 2010 to February 2012. Prior to that, she held positions in Investor Relations, Financial Planning and in Corporate Treasury.
Patrick M. Shanahan	54	Senior Vice President, Supply Chain & Operations since April 2016. Mr. Shanahan's previous positions include Senior Vice President of Airplane Programs from December 2008 to April 2016; Vice President and General Manager of the 787 Dreamliner program from October 2007 to December 2008; and Vice President and General Manager of Boeing Missile Defense Systems from December 2004 to October 2007.
Gregory D. Smith	50	Chief Financial Officer, Executive Vice President, Corporate Development and Strategy since February 2015. Mr. Smith previously served as Executive Vice President, Chief Financial Officer from February 2012 to February 2015; Vice President of Finance and Corporate Controller from February 2010 to February 2012; and Vice President of Financial Planning & Analysis from June 2008 to February 2010. From August 2004 until June 2008, he served as Vice President of Global Investor Relations at Raytheon Company. Prior to that, he held a number of positions at Boeing including CFO, Shared Services Group; Controller, Shared Services Group; Senior Director, Internal Audit; and leadership roles in supply chain, factory operations and program management.

Information relating to our directors and nominees will be included under the caption "Election of Directors" in the 2017 Proxy Statement for our Annual Shareholders Meeting scheduled to be held on May 1, 2017 and is incorporated by reference herein. The 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 – Section 16(a) Beneficial Ownership Reporting Compliance" and "Board Committees" in the 2017 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, and printed copies may be obtained, without charge, by contacting the Office of Internal Governance, The Boeing Company,

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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 2017 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 2017 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 2017 Proxy Statement, and that information is incorporated by reference herein.

Equity Compensation Plan Information

We currently maintain two equity compensation plans that provide for the issuance of common stock to officers and other employees, directors and consultants. Each of these compensation plans was approved by our shareholders. The following table sets forth information regarding outstanding options and shares available for future issuance under these plans as of December 31, 2016:

Plan Category	Number of shares to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	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	8,646,612	$72.64	
Deferred compensation	2,543,172		
Other stock units[1]	6,385,586		
Equity compensation plans not approved by shareholders	None	None	None
Total[2]	17,575,370	$72.64	15,178,605

(1) Includes 3,493,022 shares issuable in respect of PBRSUs subject to the satisfaction of performance criteria and assumes payout at maximum levels.

(2) 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 2016, 2017 and 2018.

For further information, see Note 15 to our Consolidated Financial Statements.

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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 2017 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 2017 Proxy Statement, and that information is incorporated by reference herein.

Item 14. Principal Accounting Fees and Services

The information required by this Item will be included under the caption “Principal Accountant Fees and Services” in the 2017 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) Articles of Incorporation and By-Laws.

(i) 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).

(ii) By-Laws of The Boeing Company, as amended and restated October 14, 2016 (Exhibit 3.2 to the Company’s Current Report on Form 8-K dated October 14, 2016).

(10) Material Contracts.

Bank Credit Agreements

(i) 364-Day Credit Agreement, dated as of November 2, 2016, among The Boeing Company, the Lenders party thereto, Citigroup Global Markets Inc. and J.P. Morgan Bank N.A. as joint lead arrangers and joint book managers, JPMorgan Chase Bank, N.A. as syndication agent and Citibank, N.A. as administrative agent (Exhibit 10.1 to the Company’s Current Report on Form 8-K dated November 2, 2016).

(ii) Five-Year Credit Agreement, dated as of November 10, 2011, among The Boeing Company, the Lenders party thereto, Citigroup Global Markets Inc. and J.P. Morgan Securities LLC as joint lead arrangers and joint book managers, JPMorgan Chase Bank, N.A. as syndication agent and Citibank, N.A. as administrative agent (Exhibit 10.2 to the Company’s Current Report on Form 8-K dated November 10, 2011).

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(iii) Amendment No. 1 dated as of October 9, 2014 to the Five-Year Credit Agreement, dated as of November 10, 2011, among The Boeing Company, the Lenders party thereto, Citigroup Global Markets Inc. and J.P. Morgan Securities LLC as joint lead arrangers and joint book managers, JPMorgan Chase Bank, N.A. as syndication agent and Citibank, N.A. as administrative agent (Exhibit 10.2 to the Company's Current Report on Form 8-K dated October 14, 2014).

(iv) Amendment No. 2 dated as of November 4, 2015 to the Five-Year Credit Agreement, dated as of November 10, 2011, among The Boeing Company, the Lenders party thereto, Citigroup Global Markets Inc. and J.P. Morgan Securities LLC as joint lead arrangers and joint book managers, JPMorgan Chase Bank, N.A. as syndication agent and Citibank, N.A. as administrative agent (Exhibit 10.2 to the Company's Current Report on Form 8-K dated November 4, 2015).

(v) Amendment No. 3 dated as of November 2, 2016 to the Five-Year Credit Agreement, dated as of November 10, 2011, among The Boeing Company, the Lenders party thereto, Citigroup Global Markets Inc. and JPMorgan Chase Bank, N.A. as joint lead arrangers and joint book managers, JPMorgan Chase Bank, N.A. as syndication agent and Citibank, N.A. as administrative agent (Exhibit 10.2 to the Company's Current Report on Form 8-K dated November 2, 2016).

Business Acquisition Agreements

(vi) 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).

(vii) 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).

Management Contracts and Compensatory Plans

(viii) Summary of Non-Employee Director Compensation (Exhibit 10 to the Company's Form 10-Q for the quarter ended September 30, 2016).

(ix) 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).

(x) Deferred Compensation Plan for Employees of The Boeing Company, as amended and restated on January 1, 2008 (Exhibit 10.1 to the Company's Current Report on Form 8-K dated October 28, 2007).

(xi) Incentive Compensation Plan for Employees of The Boeing Company and Subsidiaries, as amended and restated effective October 31, 2016.

(xii) The Boeing Company Elected Officer Annual Incentive Plan, as amended and restated effective October 31, 2016.

(xiii) 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).

(xiv) Transition and Retirement Agreement dated June 22, 2015 (Exhibit 10.1 to the Company's Current Report on Form 8-K dated June 22, 2015).

(xv) Supplemental Pension Agreement between The Boeing Company and J. Michael Luttig dated January 25, 2007, as amended on November 14, 2007 (Exhibit (10)(xxx) to the Company's Form 10-K for the year ended December 31, 2007).

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(xvi) Supplemental Benefit Plan for Employees of The Boeing Company, as amended and restated effective January 1, 2016.

(xvii) 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).

(xviii) The Boeing Company Executive Layoff Benefits Plan, as amended and restated effective January 1, 2017.

(xix) The Boeing Company 2003 Incentive Stock Plan.

(a) Plan, as amended and restated effective October 31, 2016.

(b) 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).

(c) Form of Notice of Terms of Performance-Based Restricted Stock Units (Exhibit (10)(xviii)(c) to the Company's Form 10-K for the year ended December 31, 2016).

(d) Form of Performance Award Notice (Exhibit (10)(xviii)(d) to the Company's Form 10-K for the year ended December 31, 2016).

(e) Form of Notice of Terms of Restricted Stock Units (Exhibit (10)(xviii)(e) to the Company's Form 10-K for the year ended December 31, 2016).

(f) Form of Notice of Terms of Supplemental Restricted Stock Units (Exhibit 10.1 to the Company's Current Report on Form 8-K dated February 18, 2016).

(g) Form of Notice of Terms of Restricted Stock Units dated February 24, 2014 (Exhibit 10.1 to the Company's Current Report on Form 8-K dated February 24, 2014).

(h) Form of Notice of Terms of Restricted Stock Units dated February 23, 2015. (Exhibit (10)(xviii)(i) to the Company's Form 10-K for the year ended December 31, 2015).

(i) Notice of Terms of Restricted Stock Units (Exhibit 10.2 to the Company's Current Report on Form 8-K dated June 22, 2015).

(12) Computation of Ratio of Earnings to Fixed Charges.

(14) Codes of Ethics.

(i) The Boeing Company Code of Ethical Business Conduct for Members of the Board of Directors (www.boeing.com/resources/boeingdotcom/company/general_info/pdf/conduct_for_directors.pdf).

(ii) The Boeing Company Code of Conduct for Finance Employees (www.boeing.com/resources/boeingdotcom/company/general_info/pdf/code-of-conduct-for-finance.pdf).

(iii) The Boeing Company Code of Conduct (www.boeing.com/resources/boeingdotcom/principles/ethics_and_compliance/pdf/english.pdf).

(21) List of Company Subsidiaries.

(23) Consent of Independent Registered Public Accounting Firm.

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(31) Section 302 Certifications.
(i) Certification of Chief Executive Officer pursuant to Section 302 of Sarbanes-Oxley Act of 2002.
(ii) Certification of Chief Financial Officer pursuant to Section 302 of Sarbanes-Oxley Act of 2002.
(32) Section 906 Certifications.
(i) Certification of Chief Executive Officer pursuant to Section 906 of Sarbanes-Oxley Act of 2002.
(ii) Certification of Chief Financial Officer pursuant to Section 906 of Sarbanes-Oxley Act of 2002.
(99) Additional Exhibits.
1 Commercial Program Method of Accounting (Exhibit (99)(i) to the 1997 Form 10-K).
(101) Interactive Data Files.
(101.INS) XBRL Instance Document
(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

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.

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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 February 8, 2017.

THE BOEING COMPANY
(Registrant)

By: /s/ Robert E. Verbeck
Robert E. Verbeck – Senior Vice President, Finance and Corporate Controller

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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 February 8, 2017.

/s/ Dennis A. Muilenburg
Dennis A. Muilenburg – Chairman, President and Chief Executive Officer
(Principal Executive Officer)

/s/ Gregory D. Smith
Gregory D. Smith – Chief Financial Officer and Executive Vice President, Corporate Development and Strategy
(Principal Financial Officer)

/s/ Robert E. Verbeck
Robert E. Verbeck – Senior Vice President, Finance and Corporate Controller
(Principal Accounting Officer)

/s/ Robert A. Bradway
Robert A. Bradway – Director

/s/ David L. Calhoun
David L. Calhoun – Director

/s/ Arthur D. Collins, Jr.
Arthur D. Collins, Jr. – Director

/s/ Kenneth M. Duberstein
Kenneth M. Duberstein – Director

/s/ Edmund P. Giambastiani, Jr.
Edmund P. Giambastiani, Jr. – Director

/s/ Lynn J. Good
Lynn J. Good – Director

/s/ Lawrence W. Kellner
Lawrence W. Kellner – Director

/s/ Edward M. Liddy
Edward M. Liddy – Director

/s/ Susan C. Schwab
Susan C. Schwab – Director

/s/ Randall L. Stephenson
Randall L. Stephenson – Director

/s/ Ronald A. Williams
Ronald A. Williams – Director

/s/ Mike S. Zafirovski
Mike S. Zafirovski – Director