

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K**

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

For the fiscal year ended December 31, 2019

Or

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

Commission File Number 001-5424



DELTA AIR LINES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

58-0218548

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

Post Office Box 20706

Atlanta, Georgia

(Address of principal executive offices)

30320-6001

(Zip Code)

Registrant's telephone number, including area code: (404) 715-2600

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

| Title of each class | Trading Symbol | Name of each exchange on which registered |
|--|-----------------------|--|
| Common Stock, par value \$0.0001 per share | DAL | New York Stock Exchange |

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

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

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

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

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

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

Large accelerated filer ☒

Accelerated filer ☐

Non-accelerated filer ☐

Smaller reporting company ☐

Emerging growth company ☐

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2019 was approximately \$36.9 billion.

On January 31, 2020, there were outstanding 640,093,995 shares of the registrant's common stock.

This document is also available on our website at <http://ir.delta.com/>.

Documents Incorporated By Reference

Part III of this Form 10-K incorporates by reference certain information from the registrant's definitive Proxy Statement for its Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission.

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Unless otherwise indicated, the terms "Delta," "we," "us," and "our" refer to Delta Air Lines, Inc. and its subsidiaries.

FORWARD-LOOKING STATEMENTS

Statements in this Form 10-K (or otherwise made by us or on our behalf) that are not historical facts, including statements about our estimates, expectations, beliefs, intentions, projections or strategies for the future, may be "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from historical experience or our present expectations. Known material risk factors applicable to Delta are described in "Risk Factors Relating to Delta" and "Risk Factors Relating to the Airline Industry" in "Item 1A. Risk Factors" of this Form 10-K, other than risks that could apply to any issuer or offering. All forward-looking statements speak only as of the date made, and we undertake no obligation to publicly update or revise any forward-looking statements to reflect events or circumstances that may arise after the date of this report.

Part I

ITEM 1. BUSINESS

General

We are the leading U.S. global airline serving 200 million customers every year. We connect customers across our expansive global network to more than 300 destinations in over 50 countries. We are the world's largest airline by total revenues and the most profitable with five consecutive years of \$5 billion or more in pre-tax income.

We are committed to industry-leading safety and reliability and are consistently among the industry's best performers. Our employees provide world-class travel experiences for our customers and give back to the communities where they live, work and serve. Our people and service are our strongest competitive advantage creating significant customer satisfaction improvements. Other key competitive advantages include operational reliability, our global network, customer loyalty and our investment grade balance sheet.

We have diversified revenue streams beyond the basic sale of an airline ticket in order to reduce the impact of cyclicalities on our results. Our growing partnership with American Express provides a co-brand revenue stream tied to broader consumer spending. Our focus in recent years on premium products and customer segmentation has enhanced our revenue growth and reduced reliance on the most price sensitive customer segment. We also maintain complementary portfolio businesses, such as our Maintenance, Repair and Overhaul ("MRO") division, where we are well positioned for significant organic growth through contractual agreements with jet engine manufacturers.

We are incorporated under the laws of the State of Delaware. Our principal executive offices are located at Hartsfield- Jackson Atlanta International Airport in Atlanta, Georgia. Our telephone number is (404) 715-2600 and our internet address is www.delta.com. Information contained on our website is not part of, and is not incorporated by reference in, this Form 10-K.

The Delta Brand

We have the world's most valuable airline brand, one that is mentioned not just among the best global airlines, but also alongside top consumer brands. Over the last decade, we significantly improved the quality and reliability of our operations. As a result, customer satisfaction scores have more than tripled. With operational excellence and best-in-class service, we are earning our customers' trust and preference. Our continued investment in operations, product, service, airports and technology are reshaping customer perception of our brand and driving increased customer loyalty.

Our Global Network and Fleet

We offer more than 5,000 daily departures and as many as 15,000 affiliated departures including the premier SkyTeam alliance, of which Delta is a founding member. We generate over 70% of our passenger revenue from our domestic network, centered around high-margin core hubs in Atlanta, Minneapolis-St. Paul, Detroit and Salt Lake City. These core hub positions complement strong coastal hub positions in Boston, Los Angeles, New York-LaGuardia, New York-JFK and Seattle. We have agreements with domestic regional carriers that operate as Delta Connection® to feed traffic to our domestic hubs.

We serve the Transatlantic, Transpacific and Latin America markets directly on Delta and through joint ventures with global airline partners. Internationally, we have significant hubs and market presence in Amsterdam, London-Heathrow, Mexico City, Paris-Charles de Gaulle and Seoul-Incheon. We will become the largest U.S. carrier to Tokyo-Haneda in 2020 as we consolidate operations in Tokyo, the preferred airport for the local and corporate markets.

Through innovative alliances with Aeroméxico, Air France-KLM, China Eastern, Korean Air, Virgin Atlantic and Virgin Australia and alliances pending regulatory approval with LATAM Airlines and WestJet, we are bringing more choice to customers worldwide. Our strategic relationships with these international airlines are an important part of our business as they improve our access to markets around the world and enable us to provide customers a more seamless global travel experience across our alliance network. We and our alliance partners collectively serve over 140 countries and more than 900 destinations around the world, extending our network reach to cover approximately 98% of global gross domestic product. The most significant of these arrangements are commercial joint ventures that include joint sales and marketing coordination, co-location of airport facilities and other commercial cooperation arrangements. In some cases, we have reinforced strategic alliances through equity investments where we have opportunity to create deep relationships and maximize commercial cooperation.

Our network is supported by a fleet of over 1,000 aircraft that is varied in size and capabilities, giving us flexibility to adjust aircraft to the network. We are currently refreshing our fleet, acquiring new, more fuel efficient aircraft with increased premium seating, to replace older aircraft. We are also reducing our fleet complexity with fewer aircraft types. The evolution from a legacy fleet to a more optimal fleet suited to the scale of our network will provide substantial efficiency benefits and further efforts to reduce our carbon footprint.

Expanded Products and Services

Over the last decade we have fundamentally transformed our business. We have invested in our people, our product and our reliability to alter the commodity-like nature of air travel. We have a retail oriented, merchandised approach to distribution with well-defined and differentiated products for our customers. Through improved product segmentation, we offer distinct travel experiences with clear value propositions that enable customer choice. In 2019, approximately one-third of our passenger revenues were from premium products, which include Delta One®, Delta Premium Select, First Class and Delta Comfort+®. Main Cabin products, including Basic Economy, represented approximately half of our revenue in 2019 and provide varying levels of pre-travel flexibility as well as our exceptional service onboard the aircraft.

Our tickets are sold through various distribution channels, with 52% of tickets sold through direct channels. These include digital channels, such as delta.com and the Fly Delta app, and our reservations specialists where we deliver more direct, personalized interactions with our customers at reduced distribution costs. Indirect distribution channels include online travel agencies and traditional "brick and mortar" agencies. We make fare and product information widely available across those channels, ensuring customers always receive the best information and service options.

We are implementing merchandising initiatives across our distribution channels to allow customers to better understand our product offerings, make it easier to buy the products they desire and increase customer satisfaction. This merchandising effort is most effective in Delta's digital channels where customers can compare all product options in a single, easy to understand display.

Innovative Technology to Improve Service and Efficiency

Our objective is to make technology a strategic differentiator. We continue to invest in technological improvements that support our operations and provide tools for our employees. These investments include improvements to infrastructure and technology architecture to unify and improve access to data sources and continue innovations in customer facing applications. This digital transformation is enhancing interactions with our customers and allows our people to deliver more personalized service, further enhancing the customer experience and strengthening our brand.

Through the development of innovative new technologies, we can better serve customers and give our employees the best tools. For our customers, we are making investments in the Fly Delta app, in the airport and onboard our aircraft. We are evolving the Fly Delta app into a digital travel concierge for our customers to offer convenient services on the day of travel and deliver thoughtful notifications to make their travel journeys more seamless. In the airport, we are investing to create a smoother, less stressful travel experience. On board the aircraft, we continue to invest in in-flight entertainment with the most seat-back screens in the sky and free messaging. For our employees, we are investing in applications that allow our people to have more meaningful interactions with our customers, as well as tools to make our employees safer and better able to do their jobs.

Customer Loyalty Program

Our SkyMiles® loyalty program is designed to grow customer loyalty by offering incentives to customers to increase travel on Delta. As Delta's brand has strengthened, the SkyMiles® program has seen an acceleration in membership growth. We see opportunity to continue this momentum as we increase customer engagement and expand mileage redemption options and revamp our co-brand card offerings.

The loyalty program allows program members to earn mileage credit ("miles") for award redemptions such as flights and upgrades, by flying on Delta, our regional carriers and other participating airlines. Miles may also be earned by using certain services offered by program participants, such as credit card companies, hotels, car rental agencies and ridesharing companies. In addition, individuals may purchase miles. Miles do not expire, but are subject to the program rules. We reserve the right to terminate the program with six months advance notice, and to change the program's terms and conditions at any time without notice.

Our most significant contract to sell miles relates to our co-brand credit card relationship with American Express. In early 2019, we amended our primary co-brand agreement and other related agreements with American Express. The new agreements increase the amount of total benefit that we receive and extend the duration of the relationship to 2029. In 2019, cash sales from American Express totaled \$4 billion, which is expected to grow to nearly \$7 billion by 2023.

Loyalty program miles can be redeemed for air travel (including upgrades) on Delta and participating airlines, for membership in our Delta Sky Clubs® and for other awards. We are expanding redemption opportunities and recently began enabling customers to redeem miles for bag fees. We offer last-seat availability for travel awards on our own flights (including most Delta Connection flights). Miles are subject to certain transfer restrictions and travel awards on partner airlines are subject to capacity-controlled seating. In 2019, 8.9% of revenue miles flown on Delta were from award travel, as program members redeemed miles in the loyalty program for 20 million award redemptions.

Joint Ventures, Equity Investments and Alliances

Joint Venture Agreements. We have implemented four separate joint venture arrangements with foreign carriers, each of which has been granted antitrust immunity from the U.S. Department of Transportation ("DOT"). We have reinforced a number of the agreements through equity investments in those carriers.

Each of our joint venture arrangements provides for joint commercial cooperation with the relevant partner within the geographic scope of the arrangement, including the sharing of revenues and/or profits and losses generated by the parties on the joint venture routes, as well as joint marketing and sales, coordinated pricing and revenue management, network and schedule planning and other coordinated activities with respect to the parties' operations on joint venture routes. Our implemented commercial joint ventures consist of the following:

- A combined joint venture with Air France, KLM and Virgin Atlantic with respect to transatlantic traffic flows. In addition to the joint venture, we own a non-controlling 49% equity stake in Virgin Atlantic Limited, the parent company of Virgin Atlantic Airways and a non-controlling 9% ownership stake in the parent company of Air France and KLM.
- A joint venture with Aeroméxico with respect to trans-border traffic flows between the U.S. and Mexico. In addition to the joint venture, we own a non-controlling 51% equity stake in Grupo Aeroméxico, S.A.B. de C.V., the parent company of Aeroméxico. In addition, we and Aeroméxico have established a joint venture relating to an airframe MRO operation located in Queretaro, Mexico.
- A joint venture with Korean Air with respect to traffic flows between the United States and certain countries in Asia. In addition to the joint venture, we own a 10% equity stake in Hanjin-KAL, the largest shareholder of Korean Air.
- A joint venture with Virgin Australia and its affiliated carriers with respect to traffic flows between North America and Australia/New Zealand.

We have entered into a joint venture agreement with WestJet with respect to trans-border traffic flows between the U.S. and Canada. Canadian authorities have approved the joint venture, but it remains subject to required approvals of the U.S. DOT.

In 2019, we entered into a framework agreement with LATAM Airlines Group S.A. ("LATAM") to form a strategic alliance. Pursuant to that agreement, we acquired a non-controlling 20% equity stake in LATAM in January 2020. The parties are in the process of finalizing definitive agreements to implement the strategic alliance and once finalized, the agreements will be submitted for approval by regulatory authorities. Pursuant to the framework agreement, we agreed to make transition payments to LATAM totaling \$350 million, \$200 million of which was disbursed in 2019, and also agreed to acquire four A350 aircraft from LATAM and plan to assume ten of LATAM's A350 purchase commitments from Airbus, with deliveries through 2025. In order to facilitate the formation of our strategic alliance with LATAM, we have sold our ownership stake in GOL and are winding down our commercial agreements.

Enhanced Commercial Agreements with China Eastern. We own a 3% equity interest in China Eastern, with whom we have a strategic joint marketing and commercial cooperation arrangement covering traffic flows between China and the U.S., which includes reciprocal codesharing, loyalty program participation, airport lounge access and joint sales cooperation.

SkyTeam. In addition to our marketing alliance agreements with individual foreign airlines, we are a member of the SkyTeam global airline alliance. The other members of SkyTeam are Aeroflot, Aerolíneas Argentinas, Aeroméxico, Air Europa, Air France, Alitalia, China Airlines, China Eastern, CSA Czech Airlines, Garuda Indonesia, Kenya Airways, KLM, Korean Air, Middle East Airlines, Saudi Arabian Airlines, Tarom, Vietnam Airlines and Xiamen Airlines. Through alliance arrangements with other SkyTeam carriers, Delta is able to link its network with the route networks of the other member airlines, providing opportunities to increase connecting traffic while offering enhanced customer service through reciprocal codesharing and loyalty program participation, airport lounge access and cargo operations.

Regional Carriers

We have air service agreements with domestic regional air carriers that feed traffic to our route system by serving passengers primarily in small and medium-sized cities in the domestic market. These arrangements enable us to better match capacity with demand in these markets. Approximately 15% of our passenger revenue in 2019 was related to flying by regional air carriers.

Through our regional carrier program, Delta Connection®, we have contractual arrangements with regional carriers to operate aircraft using our "DL" designator code. We currently have contractual arrangements with:

- Compass Airlines, LLC ("Compass") and GoJet Airlines, LLC ("GoJet"), both subsidiaries of Trans States Holdings, Inc. ("Trans States");
- Endeavor Air, Inc., a wholly owned subsidiary of ours;
- Republic Airline, Inc. ("Republic"), a subsidiary of Republic Airways Holdings, Inc.; and
- SkyWest Airlines, Inc., a subsidiary of SkyWest, Inc.

We have agreed with each of Compass and GoJet not to renew our existing arrangements and end our relationship with each by the end of 2020.

Our contractual agreements with regional carriers primarily are capacity purchase arrangements, under which we control the scheduling, pricing, reservations, ticketing and seat inventories for the regional carriers' flights operating under our "DL" designator code. We are entitled to all ticket, cargo, mail, in-flight and ancillary revenues associated with these flights. We pay those airlines an amount, as defined in the applicable agreement, which is based on a determination of their cost of operating those flights and other factors intended to approximate market rates for those services. These capacity purchase agreements are long-term agreements, usually with initial terms of at least ten years, which grant us the option to extend the initial term. Certain of these agreements provide us the right to terminate the entire agreement, or in some cases remove some of the aircraft from the scope of the agreement, for convenience at certain future dates.

SkyWest Airlines operates some flights for us under a revenue proration agreement. This proration agreement establishes a fixed dollar or percentage division of revenues for tickets sold to passengers traveling on connecting flight itineraries.

Global Impact

As we connect people with communities, experiences and each other, we are committed to doing our part to build a better world. Giving back to the communities where we live, work and serve is part of our culture, and we have pledged to give one percent of our annual net income back to communities across the globe. As a purpose-driven and values-led company, we are committed to reducing our environmental impact. We were among the leaders in the industry to offer comprehensive onboard recycling to our passengers and are working to reduce our use of single-use plastics. The chief focus of reducing our impact on the environment is jet fuel, which is the primary contributor to our carbon footprint. We continue to focus on increasing fuel efficiency as we replace older aircraft with more fuel-efficient jets and improve the efficiency of our existing aircraft through operational efforts.

Other Businesses

Cargo

Through our global network, our cargo operations are able to connect the world's major freight gateways. We generate cargo revenues in domestic and international markets through the use of cargo space on regularly scheduled passenger aircraft. We are a member of SkyTeam Cargo, a global airline cargo alliance, whose other members are Aeroflot, Aerolíneas Argentinas, Aeroméxico Cargo, Air France-KLM Cargo, Alitalia Cargo, China Airlines Cargo, China Cargo Airlines, Czech Airlines Cargo, Korean Air Cargo and Saudia Cargo. SkyTeam Cargo offers a global network spanning six continents.

Related Businesses

We have several other businesses arising from our airline operations. In 2019, the total revenue from these businesses was approximately \$1.2 billion.

- In addition to providing maintenance and engineering support for our fleet of over 1,000 mainline and regional aircraft, our MRO operation, known as Delta TechOps, serves aviation and airline customers from around the world.
- Our vacation wholesale subsidiary, Delta Vacations, provides vacation packages to third-party consumers.
- Delta Private Jets, until January 2020 a wholly-owned subsidiary, provides aircraft charters, aircraft management and programs allowing members to purchase flight time by the hour. In January 2020, we combined Delta Private Jets with Wheels Up, establishing one of the world's largest owned and managed fleets of private aircraft. We now own an equity stake in Wheels Up.

Fuel

Our results of operations are significantly impacted by changes in the price and availability of aircraft fuel. We purchase most of our aircraft fuel under contracts that establish the price based on various market indices and therefore do not provide material protection against price increases or assure the availability of our fuel supplies. We also purchase aircraft fuel on the spot market, from off-shore sources and under contracts that permit the refiners to set the price.

The following table shows our aircraft fuel consumption and costs.

| Year | Gallons Consumed ⁽¹⁾ (in millions) | Cost ⁽¹⁾⁽²⁾ (in millions) | Average Price Per Gallon ⁽¹⁾⁽²⁾ | Percentage of Total Operating Expense ⁽¹⁾⁽²⁾ |
|------|--|---|---|--|
| 2019 | 4,214 | \$ 8,519 | \$ 2.02 | 21.1 % |
| 2018 | 4,113 | \$ 9,020 | \$ 2.20 | 23.0 % |
| 2017 | 4,032 | \$ 6,756 | \$ 1.68 | 19.2 % |

⁽¹⁾ Includes the operations of our regional carriers operating under capacity purchase agreements.

⁽²⁾ Includes the impact of fuel hedge activity and refinery segment results.

Monroe Energy

Our wholly owned subsidiaries, Monroe Energy, LLC and MIPC, LLC (collectively, "Monroe") operate the Trainer refinery and related assets located near Philadelphia, Pennsylvania. The facilities include pipelines and terminal assets that allow the refinery to supply jet fuel to our airline operations throughout the Northeastern U.S., including our New York hubs at LaGuardia and JFK. These companies are distinct from us, operating under their own management teams and with their own boards of managers. We own Monroe as part of our strategy to mitigate the cost of the refining margin reflected in the price of jet fuel, as well as to maintain sufficiency of supply to our New York operations.

Refinery Operations. The facility is capable of refining approximately 200,000 barrels of crude oil per day. In addition to jet fuel, the refinery's production consists of gasoline, diesel and other refined petroleum products ("non-jet fuel products"). Monroe sources domestic and foreign crude oil supply from a variety of providers.

Strategic Agreements. Monroe exchanges the non-jet fuel products the refinery produces with third parties for jet fuel consumed in our airline operations.

Fuel Hedging Program

Our derivative contracts to hedge the financial risk from changing fuel prices are primarily related to Monroe's inventory. We may utilize different contract and commodity types in this program and frequently test their economic effectiveness against our financial targets. We closely monitor the hedge portfolio and rebalance the portfolio based on market conditions, which may result in locking in gains or losses on hedge contracts prior to their settlement dates.

Fuel Supply Availability

We are currently able to obtain adequate supplies of aircraft fuel, including fuel produced by Monroe or procured through the exchange of non-jet fuel products the refinery produces, and crude oil for Monroe's operations. However, it is impossible to predict the future availability or price of aircraft fuel and crude oil. Weather-related events, natural disasters, political disruptions or wars involving oil-producing countries, changes in governmental policy concerning aircraft fuel production, transportation, taxes or marketing, changes in refining capacity, environmental concerns and other unpredictable events may result in future fuel supply shortages and fuel price increases.

Competition

The airline industry is highly competitive, marked by significant competition with respect to routes, fares, schedules (both timing and frequency), services, products, customer service and loyalty programs. The industry has evolved through mergers and new entry, both domestically and internationally, and evolution in international alliances. Consolidation in the airline industry, the presence of subsidized government sponsored international carriers, changes in international alliances and the creation of immunized joint ventures have altered, and will continue to alter, the competitive landscape in the industry, resulting in the formation of airlines and alliances with significant financial resources, extensive global networks and competitive cost structures.

Domestic

Our domestic operations are subject to competition from traditional network carriers, including American Airlines and United Airlines, national point-to-point carriers, including Alaska Airlines, JetBlue Airways and Southwest Airlines, and other discount or ultra low-cost carriers, including Spirit Airlines, Frontier Airlines and Allegiant Air, some of which may have lower costs than we do and provide service at low fares to destinations served by us. Point-to-point, discount and ultra low-cost carriers place significant competitive pressure on network carriers in the domestic market. In particular, we face significant competition at our domestic hubs and key airports either directly at those airports or at the hubs of other airlines that are located in close proximity to our hubs and key airports. We also face competition in smaller to medium-sized markets from regional jet operations of other carriers.

International

Our international operations are subject to competition from both foreign and domestic carriers. Competition from government-owned and subsidized carriers in the Gulf region, including Emirates, Etihad Airways and Qatar Airways, is significant. These carriers have large numbers of international widebody aircraft on order and have increased service to the U.S. These carriers' government subsidies have allowed them to grow quickly, reinvest in their product and expand their global presence at the expense of U.S. airlines.

Through alliance and other marketing and codesharing agreements with foreign carriers, U.S. carriers have increased their ability to sell international transportation, such as services to and beyond traditional European and Asian gateway cities. Similarly, foreign carriers have obtained increased access to interior U.S. passenger traffic beyond traditional U.S. gateway cities through these relationships. In particular, alliances formed by domestic and foreign carriers, including SkyTeam, the Star Alliance (among United Airlines, Lufthansa German Airlines, Air Canada and others) and the oneworld alliance (among American Airlines, British Airways, Qantas and others) have enhanced competition in international markets.

In addition, several joint ventures among U.S. and foreign carriers, including our joint ventures, have received grants of antitrust immunity allowing the participating carriers to coordinate schedules, pricing, sales and inventory. Other joint ventures that have received antitrust immunity include a transatlantic alliance among United Airlines, Air Canada and Lufthansa German Airlines, a transpacific joint venture between United Airlines and All Nippon Airways, a transatlantic joint venture among American Airlines, British Airways and Iberia, a transpacific joint venture between American Airlines and Japan Air Lines and a transpacific joint venture between American Airlines and Qantas.

Regulatory Matters

The DOT and the Federal Aviation Administration (the "FAA") exercise regulatory authority over air transportation in the U.S. The DOT has authority to issue certificates of public convenience and necessity required for airlines to provide domestic air transportation. An air carrier that the DOT finds fit to operate is given authority to operate domestic and international air transportation (including the carriage of passengers and cargo). Except for constraints imposed by regulations regarding "Essential Air Services," which are applicable to certain small communities, airlines may terminate service to a city without restriction.

The DOT has jurisdiction over certain economic and consumer protection matters, such as unfair or deceptive practices and methods of competition, advertising, denied boarding compensation, baggage liability and disabled passenger transportation. The DOT also has authority to review certain joint venture agreements between domestic and international carriers. The DOT engages in regulation of economic matters such as transactions involving allocation of "slots" or similar regulatory mechanisms which limit the rights of carriers to conduct operations at airports where such mechanisms are in place. The FAA has primary responsibility for matters relating to the safety of air carrier flight operations, including airline operating certificates, control of navigable air space, flight personnel, aircraft certification and maintenance and other matters affecting air safety.

Authority to operate international routes and international codesharing arrangements is regulated by the DOT and by the governments of the foreign countries involved. International certificate authorities are also subject to the approval of the U.S. President for conformance with national defense and foreign policy objectives.

The Transportation Security Administration and the U.S. Customs and Border Protection, each a division of the Department of Homeland Security, are responsible for certain civil aviation security matters, including passenger and baggage screening at U.S. airports and international passenger prescreening prior to entry into or departure from the U.S.

Airlines are also subject to various other federal, state, local and foreign laws and regulations. For example, the U.S. Department of Justice has jurisdiction over airline competition matters. The U.S. Postal Service has authority over certain aspects of the transportation of mail. Labor relations in the airline industry, as discussed below, are generally governed by the Railway Labor Act with oversight by the National Mediation Board. Environmental matters are regulated by various federal, state, local and foreign governmental entities. Privacy of passenger and employee data is regulated by domestic and foreign laws and regulations.

Fares and Rates

Airlines set ticket prices in all domestic and most international city pairs with minimal governmental regulation, and the industry is characterized by significant price competition. Certain international fares and rates are subject to the jurisdiction of the DOT and the governments of the foreign countries involved. Many of our tickets are sold by travel agents, and fares are subject to commissions, overrides and discounts paid to travel agents, brokers and wholesalers.

Route Authority

Our flight operations are authorized by certificates of public convenience and necessity and also by exemptions and limited-entry frequency awards issued by the DOT. The requisite approvals of other governments for international operations are controlled by bilateral agreements (and a multilateral agreement in the case of the U.S. and the European Union) with, or permits or approvals issued by, foreign countries. Because international air transportation is governed by bilateral or other agreements between the U.S. and the foreign country or countries involved, changes in U.S. or foreign government aviation policies could result in the alteration or termination of such agreements, diminish the value of our international route authorities or otherwise affect our international operations. Bilateral agreements between the U.S. and various foreign countries served by us are subject to renegotiation from time to time. The U.S. government has negotiated "Open Skies" agreements with many countries, which allow unrestricted access between the U.S. and the foreign markets.

Certain of our international route authorities are subject to periodic renewal requirements. We request extension of these authorities when and as appropriate. While the DOT usually renews temporary authorities on routes where the authorized carrier is providing a reasonable level of service, there is no assurance this practice will continue in general or with respect to a specific renewal. Dormant route authorities may not be renewed in some cases, especially where another U.S. carrier indicates a willingness to provide service.

Airport Access

Operations at three major domestic airports and certain foreign airports served by us are regulated by governmental entities through allocations of "slots" or similar regulatory mechanisms. Each slot represents the authorization to land at or take off from the particular airport during a specified time period.

In the U.S., the FAA currently regulates the allocation of slots, slot exemptions, operating authorizations, or similar capacity allocation mechanisms at Reagan National in Washington, D.C. and LaGuardia and JFK in the New York City area. Our operations at these airports generally require the allocation of slots or analogous regulatory authorizations. Similarly, our operations at Tokyo's Haneda airport, London's Heathrow airport and other international airports are regulated by local slot coordinators pursuant to the International Air Transport Association's Worldwide Scheduling Guidelines and applicable local law. We currently have sufficient slots or analogous authorizations to operate our existing flights, and we have generally been able to obtain the rights to expand our operations and to change our schedules. There is no assurance, however, that we will be able to do so in the future because, among other reasons, such allocations are subject to changes in governmental policies.

Environmental Matters

Our operations are subject to a number of international, federal, state and local laws and regulations governing protection of the environment, including regulation of greenhouse gases and other air emissions, noise reduction, water discharges, aircraft drinking water, storage and use of petroleum and other regulated substances, and the management and disposal of hazardous waste, substances and materials.

Emissions. Carbon emissions by the aviation industry and their impact on climate change have become a particular focus in the international community and within the U.S. For several years, the European Union has required its member states to implement regulations to include aviation in its Emissions Trading Scheme ("ETS"). Under these regulations, any airline with flights originating or landing in the European Union is subject to the ETS and, beginning in 2012, was required to purchase emissions allowances if the airline exceeds the number of free allowances allocated to it under the ETS. The ETS was amended to apply only to flights within the European Economic Area from 2013 through 2016. In 2017, the EU extended the exemption for foreign flights through 2023 based on the International Civil Aviation Organization's ("ICAO") adoption of a global market-based program.

In 2016, ICAO formally adopted a global, market-based emissions offset program known as the Carbon Offsetting and Reduction Scheme for International Aviation ("CORSIA"). This program establishes a medium-term goal for the aviation industry of achieving carbon-neutral growth in international aviation beginning in 2021, based on a 2019-2020 baseline. A pilot phase of the offset program will begin in 2021, followed by a first phase of the program beginning in 2024 and a second phase beginning in 2027. Countries can voluntarily participate in the pilot and first phase, and the United States has agreed to participate in these voluntary phases. Participation in the second phase is mandatory for certain countries, including the United States. We submitted our CORSIA Emissions Monitoring Plan to the FAA in 2019 and are monitoring emissions for the 2019-2020 baseline period. In 2017, ICAO also adopted new aircraft certification standards to reduce carbon dioxide (CO₂) emissions from aircraft. The new aircraft certification standards apply to new aircraft types in 2020 and to new in-production aircraft starting in 2023 but no later than 2028. These standards will not apply to existing in-service aircraft. However, exemption from the certification requirement could affect how these aircraft are treated under other programs governing CO₂ emissions.

In 2016, the U.S. Environmental Protection Agency ("EPA") issued a final finding under the Clean Air Act that greenhouse gases threaten the public health and welfare, and further determined that aircraft cause or contribute to greenhouse gases. The endangerment finding does not establish standards, but triggers an obligation for the EPA to regulate greenhouse gas emissions from aircraft. The EPA has historically implemented air emissions control standards adopted by ICAO; however, the EPA has yet to issue regulations to regulate greenhouse gas emissions from aircraft pursuant to the 2016 endangerment finding.

We may face additional regulation of aircraft emissions in the U.S. and abroad and become subject to further taxes, charges or additional requirements to obtain permits or purchase allowances or emission credits for greenhouse gas emissions in various jurisdictions. Additional regulation could result in taxation, regulatory or permitting requirements from multiple jurisdictions for the same operations and significant costs for us and the airline industry. In addition to direct costs, such regulation could result in increased fuel costs passed through from fuel suppliers affected by any such regulations. We are monitoring and evaluating the potential impact of such legislative and regulatory developments.

We seek to minimize the impact of carbon emissions from our operations through reductions in our fuel consumption and other efforts, and have realized reductions in our carbon emission levels since 2005. We have reduced the fuel needs of our aircraft fleet through the retirement of older aircraft and replacement with newer, more fuel efficient aircraft. In addition, we have implemented fuel saving procedures in our flight and ground support operations that further reduce carbon emissions. We are also supporting efforts to develop alternative fuels and efforts to modernize the air traffic control system in the U.S. as part of our efforts to reduce our emissions and minimize our impact on the environment.

Noise. The Airport Noise and Capacity Act of 1990 recognizes the rights of operators of airports with noise problems to implement local noise abatement programs so long as such programs do not interfere unreasonably with interstate or foreign commerce or the national air transportation system. This statute generally provides that local noise restrictions on Stage 3 aircraft first effective after October 1, 1990, require FAA approval. While we have had sufficient scheduling flexibility to accommodate local noise restrictions in the past, our operations could be adversely impacted if locally-imposed regulations become more restrictive or widespread. In addition, foreign governments may allow airports to enact similar restrictions, which could adversely impact our international operations or require significant expenditure in order for our aircraft to comply with the restrictions.

Refinery Matters. Monroe's operation of the Trainer refinery is subject to numerous environmental laws and extensive regulations, including those relating to the discharge of materials into the environment, waste management, pollution prevention measures and greenhouse gas and other air emissions.

Under the Energy Independence and Security Act of 2005 and 2007, the Renewable Fuel Standard ("RFS") was created, setting up specific targets of renewable fuel to be used in the U.S. economy by mandating the blending of renewable fuels into gasoline and on-road diesel ("Transportation Fuels"). Renewable Identification Numbers ("RINs") are assigned to renewable fuels produced or imported into the U.S. that are blended into Transportation Fuels to demonstrate compliance with this obligation. A refiner may meet its obligation under RFS by blending the necessary volumes of renewable fuels with Transportation Fuels or by purchasing RINs in the open market or through a combination of blending and purchasing RINs. Because Monroe blends only a small amount of renewable fuels, it must purchase the majority of its RINs requirement in the secondary market. Market prices for RINs have been volatile, marked by periods of sharp increases and decreases primarily in response to predictions about what the EPA and/or the U.S. Congress will do with respect to compliance obligations.

Other Environmental Matters. We are subject to certain environmental laws and contractual obligations governing the management and release of regulated substances, which may require the investigation and remediation of affected sites. Soil and/or ground water impacts have been identified at certain of our current or former leaseholds at several domestic airports. To address these impacts, we have a program in place to investigate and, if appropriate, remediate these sites. Although the ultimate outcome of these matters cannot be predicted with certainty, we believe that the resolution of these matters will not have a material adverse effect on our Consolidated Financial Statements.

Civil Reserve Air Fleet Program

We participate in the Civil Reserve Air Fleet program (the "CRAF Program"), which permits the U.S. military to use the aircraft and crew resources of participating U.S. airlines during airlift emergencies, national emergencies or times of war. We have agreed to make available under the CRAF Program a portion of our international aircraft during the contract period ending September 30, 2020. The CRAF Program has only been activated twice since it was created in 1951.

Employee Matters

Railway Labor Act

Our relations with labor unions representing our airline employees in the U.S. are governed by the Railway Labor Act. Under the Railway Labor Act, a labor union seeking to represent an unrepresented craft or class of employees is required to file with the National Mediation Board ("NMB") an application alleging a representation dispute, along with authorization cards signed by at least 50% of the employees in that craft or class. The NMB then investigates the dispute and, if it finds the labor union has obtained a sufficient number of authorization cards, conducts an election to determine whether to certify the labor union as the collective bargaining representative of that craft or class. A labor union will be certified as the representative of the employees in a craft or class if more than 50% of votes cast are for representation. A certified labor union would commence negotiations toward a collective bargaining agreement with the employer.

Under the Railway Labor Act, a collective bargaining agreement between an airline and a labor union does not expire, but instead becomes amendable as of a stated date. Either party may request that the NMB appoint a federal mediator to participate in the negotiations for a new or amended agreement. If no agreement is reached in mediation, the NMB may determine, at any time, that an impasse exists and offer binding arbitration. If either party rejects binding arbitration, a 30-day "cooling off" period begins. At the end of this 30-day period, the parties may engage in "self help," unless the U.S. President appoints a Presidential Emergency Board ("PEB") to investigate and report on the dispute. The appointment of a PEB maintains the "status quo" for an additional 60 days. If the parties do not reach agreement during this period, the parties may then engage in self help. Self help includes, among other things, a strike by the union or the imposition of proposed changes to the collective bargaining agreement by the airline. Congress and the President have the authority to prevent self help by enacting legislation that, among other things, imposes a settlement on the parties.

Collective Bargaining

As of December 31, 2019, we had approximately 91,000 full-time equivalent employees, approximately 19% of whom were represented by unions. The following table shows our domestic airline employee groups that are represented by unions.

| Employee Group | Approximate Number of Active Employees Represented | Union | Date on which Collective Bargaining Agreement Becomes Amendable |
|--|---|--------------|--|
| Delta Pilots | 13,082 | ALPA | December 31, 2019 |
| Delta Flight Superintendents (Dispatchers) | 443 | PAFCA | November 1, 2024 |
| Endeavor Air Pilots | 1,872 | ALPA | January 1, 2024 |
| Endeavor Air Flight Attendants | 1,492 | AFA | December 31, 2018 |

We are in discussions with representatives of our pilots and Endeavor Air flight attendants regarding terms of amendable collective bargaining agreements.

In addition to the domestic airline employee groups discussed above, 199 refinery employees of Monroe are represented by the United Steel Workers under an agreement that expires on February 28, 2022. This agreement is governed by the National Labor Relations Act ("NLRA"), which generally allows either party to engage in self help upon the expiration of the agreement.

Labor unions periodically engage in organizing efforts to represent various groups of our employees, including at our operating subsidiaries, that are not represented for collective bargaining purposes.

Information About Our Executive Officers

Edward H. Bastian, Age 62: Chief Executive Officer of Delta since May 2016; President of Delta (September 2007 - May 2016); President of Delta and Chief Executive Officer Northwest Airlines, Inc. (October 2008 - December 2009); President and Chief Financial Officer of Delta (September 2007 - October 2008); Executive Vice President and Chief Financial Officer of Delta (July 2005 - September 2007); Chief Financial Officer of Acuity Brands (June 2005 - July 2005); Senior Vice President - Finance and Controller of Delta (2000 - April 2005); Vice President and Controller of Delta (1998 - 2000).

Peter W. Carter, Age 56: Executive Vice President - Chief Legal Officer of Delta since July 2015; Partner of Dorsey & Whitney LLP (1999 - 2015), including co-chair of Securities Litigation and Enforcement practice group, chair of Policy Committee and chair of trial department.

Glen W. Hauenstein, Age 59: President of Delta since May 2016; Executive Vice President - Chief Revenue Officer of Delta (August 2013 - May 2016); Executive Vice President - Network Planning and Revenue Management of Delta (April 2006 - July 2013); Executive Vice President and Chief of Network and Revenue Management of Delta (August 2005 - April 2006); Vice General Director - Chief Commercial Officer and Chief Operating Officer of Alitalia (2003 - 2005); Senior Vice President- Network of Continental Airlines (2003); Senior Vice President - Scheduling of Continental Airlines (2001 - 2003); Vice President Scheduling of Continental Airlines (1998 - 2001).

Paul A. Jacobson, Age 48: Executive Vice President - Chief Financial Officer of Delta since August 2013; Senior Vice President and Chief Financial Officer of Delta (March 2012 - July 2013); Senior Vice President and Treasurer of Delta (December 2007 - March 2012); Vice President and Treasurer of Delta (August 2005 - December 2007).

William P. Lentsch, Age 56: Executive Vice President - Flying/Air Operations of Delta since August 2018; Senior Vice President - Delta Connection and Delta Global Services, CEO - Endeavor Air (April 2017 - August 2018); Senior Vice President - Airport Customer Service and Airline Operations of Delta (September 2013 - April 2017); Senior Vice President - Minnesota Operations of Delta (June 2009 - September 2013); Senior Vice President - Flight Operations of Northwest Airlines, Inc. (October 2008 - June 2009); Vice President - Flight Operations of Northwest Airlines, Inc. (October 2007 - October 2008); Vice President - Customer Service - Minneapolis of Northwest Airlines, Inc. (May 2006 - October 2007); Vice President - Station Operations of Northwest Airlines, Inc. (July 2005 - May 2006).

Rahul Samant, Age 53: Executive Vice President - Chief Information Officer of Delta since January 2018; Senior Vice President and Chief Information Officer of Delta (February 2016 - December 2017); Senior Vice President and Chief Digital Officer of American International Group, Inc. (January 2015 - February 2016); Senior Vice President and Global Head, Application Development and Management of American International Group, Inc. (September 2012 - December 2014); Managing Director of Bank of America (1999 - September 2012).

Steven M. Sear, Age 54: President, International and Executive Vice President - Global Sales of Delta since February 2016; Senior Vice President - Global Sales of Delta (December 2011 - February 2016); Vice President - Global Sales of Delta (October 2008 - December 2011); Vice President - Sales & Customer Care of Northwest Airlines, Inc. (June 2005 - October 2008).

Joanne D. Smith, Age 61: Executive Vice President and Chief People Officer of Delta since October 2014; Senior Vice President - In-Flight Service of Delta (March 2007 - September 2014); Vice President - Marketing of Delta (November 2005 - February 2007); President of Song (January 2005 - October 2005); Vice President - Marketing and Customer Service of Song (November 2002 - December 2004).

W. Gil West, Age 59: Senior Executive Vice President and Chief Operating Officer of Delta since February 2016; Executive Vice President and Chief Operating Officer of Delta (March 2014 - February 2016); Senior Vice President - Airport Customer Service and Technical Operations of Delta (February 2012 - February 2014); Senior Vice President - Airport Customer Service of Delta (March 2008 - January 2012); President and Chief Executive Officer of Laidlaw Transit Services (2006 - 2007).

Additional Information

We make available free of charge on our website at ir.delta.com our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q, our Current Reports on Form 8-K and amendments to those reports as soon as reasonably practicable after these reports are filed with or furnished to the Securities and Exchange Commission. Information on our website is not incorporated into this Form 10-K or our other securities filings and is not a part of those filings.

ITEM 1A. RISK FACTORS

Risk Factors Relating to Delta

We are at risk of losses and adverse publicity stemming from a serious accident involving our aircraft or aircraft of our airline partners.

An aircraft crash or other serious accident could expose us to significant liability. Although we believe that our insurance coverage is appropriate, we may be forced to bear substantial losses from an accident in the event that the coverage was not sufficient.

In addition, any accident involving an aircraft that we operate or an aircraft that is operated by an airline that is one of our regional carriers or codeshare, alliance or joint venture partners could create a negative public perception about safety, which could harm our reputation, resulting in air travelers being reluctant to fly on our aircraft and therefore harm our business.

Breaches or lapses in the security of our technology systems and the data we store could compromise passenger or employee information and expose us to liability, possibly having a material adverse effect on our business.

As a regular part of our ordinary business operations, we collect and store sensitive data, including information necessary for our operations, personal information of our passengers and employees and information of our business partners. The secure operation of the networks and systems on which this type of information is stored, processed and maintained is critical to our business operations and strategy.

Our information systems and those of our service providers are subject to an increasing threat of continually evolving cybersecurity risks. Unauthorized parties may attempt to gain access to our systems or information, or those of our service providers, including through fraud or other means of deception. Hardware or software we develop, acquire or use in connection with our systems may contain defects that could unexpectedly compromise information security. For example, we were notified in 2018 that a third-party vendor of chat services for Delta and other companies determined it had been involved in a cyber incident for a short period in 2017. We have incurred remedial, legal and other costs in connection with this incident but the costs are not material to our financial position or results of operations.

The methods used to obtain unauthorized access, disable or degrade service or sabotage systems are constantly evolving and may be difficult to anticipate or to detect for long periods of time. As a result of these types of risks and regular attacks on our systems, we regularly review and update procedures and processes to prevent and protect against unauthorized access to our systems and information and inadvertent misuse of data. In addition to continuously risk assessing and reviewing our procedures, processes and technologies, we also continue to monitor, review and update the process and control requirements we expect our third parties and vendors to leverage and implement for the protection of Delta information that is in their care. However, the constantly changing nature of the threats means that we may not be able to prevent all information security breaches or misuse of data.

The compromise of our technology systems resulting in the loss, disclosure, misappropriation of, or access to, our information or that of our customers, employees or business partners or failure to comply with regulatory or contractual obligations with respect to such information could result in legal claims or proceedings, liability or regulatory penalties under laws protecting the privacy of personal information, disruption to our operations and damage to our reputation, any or all of which could adversely affect our business. The costs to remediate breaches and similar system compromises that do occur could be material. In addition, as cybercriminals become more sophisticated, the cost of proactive defensive measures may increase.

Disruptions of our information technology infrastructure could interfere with our operations, possibly having a material adverse effect on our business.

Disruptions in our information technology network could result from a technology error or failure impacting our internal systems, whether hosted internally at our data centers or externally at third-party locations, or large scale external interruption in technology infrastructure support on which we depend, such as power, telecommunications or the internet. The operation of our technology systems and the use of related data may also be vulnerable to a variety of other sources of interruption, including natural disasters, terrorist attacks, computer viruses, hackers and other security issues. A significant individual, sustained or repeated failure of our network, including third-party networks we utilize and on which we depend, could impact our customer service and result in increased costs. While we have in place initiatives to prevent disruptions and disaster recovery plans (including the creation of a back-up data center) and continue to invest in improvements to these initiatives and plans, these measures may not be adequate to prevent a business disruption and any material adverse financial and reputational consequences to our business.

Failure of our technology to perform effectively could have a material adverse effect on our business.

We are dependent on technology initiatives to provide customer service and operational effectiveness in order to compete in the current business environment. For example, we have made and continue to make significant investments in customer facing technology such as delta.com, mobile device applications, check-in kiosks, customer service applications, application of biometric technology, airport information displays and related initiatives, including security for these initiatives. We are also investing in significant upgrades to technology infrastructure and other supporting systems. The performance, reliability and security of the technology are critical to our ability to serve customers. If our technology does not perform effectively, our business and operations would be negatively affected, which could be material.

Our significant investments in airlines in other parts of the world and the commercial relationships that we have with those carriers may not produce the returns or results we expect.

An important part of our strategy to expand our global network has been to make significant investments in airlines in other parts of the world and expand our commercial relationships with these carriers, including through joint ventures. We expect to continue exploring ways to expand our relationships with other carriers as part of our global business strategy. These investments and relationships involve significant challenges and risks, including that we may not realize a satisfactory return on our investment or that they may not generate the expected financial results. These events could have a material adverse effect on our operating results.

In addition, we are dependent on these other carriers for significant aspects of our network in the regions in which they operate. While we work closely with these carriers, we do not have control over their operations or business methods. To the extent that the operations of any of these carriers are disrupted over an extended period or their actions have a significant adverse effect on our operations, our results of operations could be materially adversely affected.

In certain circumstances, we also may be subject to consequences of the failure of these carriers to comply with laws and regulations, including U.S. laws to which they may be subject. For example, we may be subject to consequences from improper behavior of our joint venture partners, including for failure to comply with anti-corruption laws such as the U.S. Foreign Corrupt Practices Act. Such a result could have a material adverse effect on our operating results.

Agreements governing our debt, including credit agreements, include financial and other covenants. Failure to comply with these covenants could result in events of default.

Our primary credit facility has various financial and other covenants that require us to maintain a minimum fixed charge coverage ratio and a minimum asset coverage ratio. We have other smaller facilities, some of which are secured and also contain collateral coverage ratios. A decline in the value of our assets supporting these facilities from factors that are not under our control could affect one or more of the ratios. In addition, the credit facilities contain other negative covenants customary for such financings. These covenants are subject to important exceptions and qualifications. If we fail to comply with these covenants and are unable to remedy or obtain a waiver or amendment, an event of default would result.

The credit facilities also contain other events of default customary for such financings. If an event of default were to occur, the lenders could, among other things, declare outstanding amounts due and payable and where applicable, repossess collateral, which may include aircraft or other valuable assets. In addition, an event of default or declaration of acceleration under any of the credit facilities could also result in an event of default under other of our financing agreements. The acceleration of significant amounts of debt could require us to renegotiate, repay or refinance the obligations under the credit facilities or other financing arrangements.

Employee strikes and other labor-related disruptions may have a material adverse effect on our operations.

Our business is labor intensive, utilizing large numbers of pilots, flight attendants, aircraft maintenance technicians, ground support personnel and other personnel. As of December 31, 2019, approximately 19% of our workforce, primarily pilots, was unionized. Relations between air carriers and labor unions in the United States are governed by the Railway Labor Act, which provides that a collective bargaining agreement between an airline and a labor union does not expire, but instead becomes amendable as of a stated date. The Railway Labor Act generally prohibits strikes or other types of self help actions both before and after a collective bargaining agreement becomes amendable, unless and until the collective bargaining processes required by the Railway Labor Act have been exhausted. The collective bargaining agreement with our pilots became amendable on December 31, 2019 and we are in discussions with representatives of the pilots regarding terms of the collective bargaining agreement. Monroe's relations with unions representing its employees are governed by the NLRA, which generally allows self help after a collective bargaining agreement expires.

If we or our subsidiaries are unable to reach agreement with any of our unionized work groups on future negotiations regarding the terms of their collective bargaining agreements or if additional segments of our workforce become unionized, we may be subject to work interruptions or stoppages, subject to the requirements of the Railway Labor Act or the NLRA, as the case may be. Strikes or labor disputes with our unionized employees may have a material adverse effect on our ability to conduct business. Likewise, if third-party regional carriers with whom we have contract carrier agreements are unable to reach agreement with their unionized work groups in current or future negotiations regarding the terms of their collective bargaining agreements, those carriers may be subject to work interruptions or stoppages, subject to the requirements of the Railway Labor Act, which could have a material adverse effect on our operations.

Our results can fluctuate due to the effects of weather, natural disasters and seasonality.

Our results of operations are impacted by severe weather, natural disasters and seasonality. Severe weather conditions and natural disasters (or other environmental events) can significantly disrupt service and create air traffic control problems. These events decrease revenue and can also increase costs. In addition, increases in the frequency, severity or duration of thunderstorms, hurricanes, typhoons or other severe weather events, including from changes in the global climate, could result in increases in delays and cancellations, turbulence-related injuries and fuel consumption to avoid such weather, any of which could result in loss of revenue and higher costs. In addition, demand for air travel is typically higher in the June and September quarters, particularly in our international markets, because there is more vacation travel during these periods than during the remainder of the year. The seasonal shifting of demand causes our financial results to vary on a seasonal basis. Because of fluctuations in our results from weather, natural disasters and seasonality, operating results for a historical period are not necessarily indicative of operating results for a future period and operating results for an interim period are not necessarily indicative of operating results for an entire year.

An extended disruption in services provided by third parties, including third-party regional carriers, could have a material adverse effect on our results of operations.

We utilize the services of third parties in a number of areas in support of our operations that are integral to our business, including third-party carriers in the Delta Connection program and ground operations at some airports. While we have agreements with these providers that define expected service performance, we do not have direct control over their operations. In particular, some third-party regional carriers are facing a shortage of qualified pilots due to government mandated increases in flight experience required for pilots working for airlines. If this shortage becomes more widespread, third-party regional carriers may not be able to comply with their obligations to us. To the extent that a significant disruption in services occurs because third party providers are unable to perform their obligations over an extended period of time, our revenue may be reduced or our expenses may be increased, resulting in a material adverse effect on our results of operations.

Our business and results of operations are dependent on the price of aircraft fuel. High fuel costs or cost increases, including in the cost of crude oil, could have a material adverse effect on our operating results.

Our operating results are significantly impacted by changes in the price of aircraft fuel. Over the last decade, fuel prices have increased substantially at times and have been highly volatile. In 2019, our average fuel price per gallon, including the impact of fuel hedges, was \$2.02, an 8.2% decrease from our average fuel price in 2018. In 2018, our average fuel price per gallon was \$2.20, a 31.0% increase from our average fuel price in 2017 of \$1.68. Fuel costs represented 21.1%, 23.0% and 19.2% of our operating expense in 2019, 2018 and 2017, respectively.

We acquire a significant amount of jet fuel from our wholly owned subsidiary, Monroe, and through strategic agreements that Monroe has with third parties. The cost of the fuel we purchase under these arrangements remains subject to volatility in the cost of crude oil and jet fuel. In addition, we continue to purchase a significant amount of aircraft fuel in addition to what we obtain from Monroe. Our aircraft fuel purchase contracts alone do not provide material protection against price increases as these contracts typically establish the price based on industry standard market price indices.

The competitive nature of the airline industry may affect our ability to pass along rapidly increasing fuel costs to our customers. In addition, because passengers often purchase tickets well in advance of their travel, a significant rapid increase in fuel price may result in the fare charged not covering that increase. At times in the past, we often were not able to increase our fares to offset fully the effect of increases in fuel costs, and we may not be able to do so in the future.

Significant extended disruptions in the supply of aircraft fuel, including from Monroe, could have a material adverse effect on our operations and operating results.

Weather-related events, natural disasters, political disruptions or wars involving oil-producing countries, changes in governmental policy concerning aircraft fuel production, transportation or taxes, changes in refining capacity, environmental concerns and other unpredictable events may impact crude oil and fuel supply and could result in shortages in the future. Shortages in fuel supplies could have negative effects on our results of operations and financial condition.

Because we acquire a large amount of our jet fuel from Monroe, the disruption or interruption of production at the refinery could have an impact on our ability to acquire jet fuel needed for our operations. Disruptions or interruptions of production at the refinery could result from various sources including a major accident or mechanical failure, interruption of supply or delivery of crude oil, work stoppages relating to organized labor issues, or damage from severe weather or other natural or man-made disasters, including acts of terrorism. If the refinery were to experience an interruption in operations, disruptions in fuel supplies could have negative effects on our results of operations and financial condition. In addition, the financial benefits from the operation of the refinery could be materially adversely affected (to the extent not recoverable through insurance) because of lost production and repair costs.

If Monroe's cost of producing non-jet fuel products exceeds the value it receives for those products, the financial benefits we expect to achieve through the ownership of the refinery and our consolidated results of operations could be materially adversely affected.

An environmental or other incident associated with the operation of the Monroe refinery could have a material adverse effect on our consolidated financial results if insurance is unable to cover a significant liability. In addition, such an incident could damage our reputation.

Monroe's refining operations are subject to various hazards unique to refinery operations, including explosions, fires, toxic emissions and natural catastrophes. Monroe could incur substantial losses, including cleanup costs, fines and other sanctions and third-party claims, and its operations could be interrupted, as a result of such an incident. Monroe's insurance coverage does not cover all potential losses, costs or liabilities, and Monroe could suffer losses for uninsurable or uninsured risks or in amounts greater than its insurance coverage. In addition, Monroe's ability to obtain and maintain adequate insurance may be affected by conditions in the insurance market over which it has no control. If Monroe were to incur a significant liability for which it is not fully insured or for which insurance companies do not or are unable to provide coverage, this could have a material adverse effect on our consolidated financial results of operations or consolidated financial position. In addition, because of our ownership of Monroe, the occurrence of an environmental or other incident could result in damage to our reputation, which could have a material adverse effect on our financial results.

The operation of the refinery by Monroe is subject to significant environmental regulation. Failure to comply with environmental regulations or the enactment of additional regulation could have a material adverse effect on our consolidated financial results.

Monroe's operations are subject to extensive environmental, health and safety laws and regulations, including those relating to the discharge of materials into the environment, waste management, pollution prevention measures and greenhouse gas emissions. Monroe could incur fines and other sanctions, cleanup costs and third-party claims as a result of violations of or liabilities under environmental, health and safety requirements, which if significant, could have a material adverse effect on our consolidated financial results. In addition, the enactment of new environmental laws and regulations, including any laws or regulations relating to greenhouse gas emissions, could significantly increase the level of expenditures required for Monroe or restrict its operations.

In particular, under the Energy Independence and Security Act of 2007, the EPA has adopted RFS that mandate the blending of renewable fuels into Transportation Fuels. RINs are assigned to renewable fuels produced or imported into the U.S. that are blended into Transportation Fuels to demonstrate compliance with this obligation. A refinery may meet its obligation under RFS by blending the necessary volumes of renewable fuels with Transportation Fuels or by purchasing RINs in the open market or through a combination of blending and purchasing RINs.

Because Monroe blends only a small amount of renewable fuels, it must purchase the majority of its RINs requirement in the secondary market or obtain a waiver from the EPA. As a result, Monroe is exposed to the market price of RINs. Market prices for RINs have been volatile, marked by periods of sharp increases and decreases. We cannot predict the future prices of RINs. Purchasing RINs at elevated prices could have a material impact on our consolidated results of operations and cash flows.

Existing laws or regulations could change, and the minimum volumes of renewable fuels that must be blended with refined petroleum products may increase. Increases in the volume of renewable fuels that must be blended into Monroe's products could limit the refinery's production if sufficient numbers of RINs are not available for purchase or relief from this requirement is not obtained, which could have a material adverse effect on our consolidated financial results.

If we lose senior management and other key employees and they are not replaced by individuals with comparable skills, our operating results could be materially adversely affected.

We are dependent on the experience and industry knowledge of our officers and other key employees to design and execute our business plans. If we experience a substantial turnover in our leadership and other key employees, and these persons are not replaced by individuals with comparable skills, our performance could be materially adversely impacted. Furthermore, we may be unable to attract and retain additional qualified executives as needed in the future.

Our reputation and brand could be damaged if we are exposed to significant adverse publicity.

We operate in a highly visible, public environment with significant exposure to traditional and social media. Adverse publicity, whether justified or not, can rapidly spread, including through social or digital media. In particular, passengers can use social media to provide feedback about their interaction with us in a manner that can be quickly and broadly disseminated. To the extent we are unable to respond timely and appropriately to adverse publicity, our brand and reputation may be damaged. Significant damage to our overall reputation and brand image could have a material adverse effect on our financial results.

Risk Factors Relating to the Airline Industry

Terrorist attacks, geopolitical conflict or security events may adversely affect our business, financial condition and operating results.

Terrorist attacks, geopolitical conflict or security events, or fear of any of these events, could have a significant adverse effect on our business. Despite significant security measures at airports and airlines, the airline industry remains a high profile target for terrorist groups. We constantly monitor threats from terrorist groups and individuals, including from violent extremists both internationally and domestically, with respect to direct threats against our operations and in ways not directly related to the airline industry. In addition, the impact on our operations of avoiding areas of the world, including airspace, in which there are geopolitical conflicts and the targeting of commercial aircraft by parties to those conflicts can be significant. Security events, primarily from external sources but also from potential insider threats, also pose a significant risk to our passenger and cargo operations. These events could include random acts of violence and could occur in public areas that we cannot control.

Terrorist attacks, geopolitical conflict or security events, or fear of any of these events, even if not made directly on or involving the airline industry, could have significant negative impact on us by discouraging passengers from flying, leading to decreased ticket sales and increased refunds. In addition, potential costs from these types of events include increased security costs, impacts from avoiding flight paths over areas in which conflict is occurring, reputational harm and other costs. If any or all of these types of events occur, they could have a material adverse effect on our business, financial condition and results of operations.

The global airline industry is highly competitive and, if we cannot successfully compete in the marketplace, our business, financial condition and operating results will be materially adversely affected.

The airline industry is highly competitive, marked by significant competition with respect to routes, fares, schedules (both timing and frequency), services, products, customer service and loyalty programs. Consolidation in the airline industry, the rise of subsidized government sponsored international carriers, changes in international alliances and the creation of immunized joint ventures have altered and will continue to alter the competitive landscape in the industry, resulting in the formation of airlines and alliances with increased financial resources, more extensive global networks and competitive cost structures.

Our domestic operations are subject to competition from traditional network carriers, including American Airlines and United Airlines, national point-to-point carriers, including Alaska Airlines, JetBlue Airways and Southwest Airlines, and other discount or ultra low-cost carriers, including Spirit Airlines, Frontier Airlines and Allegiant Air, some of which may have lower costs than we do and provide service at low fares to destinations served by us. Point-to-point, discount and ultra low-cost carriers place significant competitive pressure on network carriers in the domestic market. In particular, we face significant competition at our domestic hubs and key airports either directly at those airports or at the hubs of other airlines that are located in close proximity to our hubs and key airports. We also face competition in smaller to medium-sized markets from regional jet operations of other carriers. Our ability to compete in the domestic market effectively depends, in part, on our ability to maintain a competitive cost structure. If we cannot maintain our costs at a competitive level, then our business, financial condition and operating results could be materially adversely affected.

Our international operations are subject to competition from both foreign and domestic carriers. Competition from government-owned and subsidized carriers in the Gulf region, including Emirates, Etihad Airways and Qatar Airways, is significant. These carriers have large numbers of international widebody aircraft on order and have increased service to the U.S. These carriers are government-subsidized, which has allowed them to grow quickly, reinvest in their product and expand their global presence at the expense of U.S. airlines.

Through alliance and other marketing and codesharing agreements with foreign carriers, U.S. carriers have increased their ability to sell international transportation, such as services to and beyond traditional European and Asian gateway cities. Similarly, foreign carriers have obtained increased access to interior U.S. passenger traffic beyond traditional U.S. gateway cities through these relationships. In addition, several joint ventures among U.S. and foreign carriers have received grants of antitrust immunity allowing the participating carriers to coordinate schedules, pricing, sales and inventory.

Increased competition in both the domestic and international markets may have a material adverse effect on our business, financial condition and operating results.

Extended interruptions or disruptions in service at major airports in which we operate or the extended grounding of a type of aircraft or engine we operate could have a material adverse effect on our operations.

The airline industry is heavily dependent on business models that concentrate operations in major airports in the United States and throughout the world. An extended interruption or disruption at an airport where we have significant operations could have a material adverse effect on our business, financial condition and results of operations.

Similarly, the airline industry is heavily dependent on a limited number of aircraft and engine manufacturers whose products are subject to extensive regulatory requirements. The long-term grounding of an aircraft or engine type that we operate could have a significant impact on our operations if we are not able to substitute or replace the affected aircraft or engine type and could, in any event, have a material adverse effect on our financial condition and results of operations.

The airline industry is subject to extensive government regulation, and new regulations may increase our operating costs.

Airlines are subject to extensive regulatory and legal compliance requirements that result in significant costs. For instance, the FAA from time to time issues directives and other regulations relating to the maintenance and operation of aircraft that necessitate significant expenditures. We expect to continue incurring significant expenses to comply with the FAA's regulations.

Other laws, regulations, taxes and airport rates and charges have also been imposed from time to time that significantly increase the cost of airline operations or reduce revenues. The industry is heavily taxed. Additional taxes and fees, if implemented, could negatively impact our results of operations.

Airport slot access is subject to government regulation and changes in slot regulations or allocations could impose a significant cost on the airlines operating in airports subject to such regulations or allocations. In addition, the failure of the federal government to upgrade the U.S. air traffic control system has resulted in delays and disruptions of air traffic during peak travel periods in certain congested markets. The failure to improve the air traffic control system could lead to increased delays and inefficiencies in flight operations as demand for U.S. air travel increases, having a material adverse effect on our operations. Failure to update the air traffic control system in a timely manner, and the substantial funding requirements of an updated system that may be imposed on air carriers, may have an adverse impact on our financial condition and results of operations.

As an international carrier, we are subject to a wide variety of U.S. and foreign laws that affect trade, including tariff and trade policies, export requirements, taxes, monetary policies and other restrictions and charges. On October 2, 2019, an arbitration tribunal of the World Trade Organization ruled in a long-standing dispute that the United States could impose \$7.5 billion in retaliatory tariffs in response to European Union subsidies to Airbus. Effective October 18, 2019, the U.S. Trade Representative imposed tariffs on certain products imported from the European Union, including an ad valorem duty of 10% on commercial aircraft originating in France and Germany. Some of the Airbus aircraft that we have on order would be subject to these tariffs if imported as new aircraft. We are pursuing strategies to minimize the impact of these tariffs on our aircraft deliveries but if we are unsuccessful or if the tariffs are increased, these tariffs could substantially increase the cost to us of the affected aircraft, which in turn could have a material adverse effect on our financial results.

In addition, some of our operations are in high-risk legal compliance environments. Failure to comply with trade sanctions, the U.S. Foreign Corrupt Practices Act and other applicable laws or regulations could result in litigation, assessment of damages, imposition of penalties or other consequences, any or all of which could harm our reputation and have an adverse effect on our financial results.

We and other U.S. carriers are subject to U.S. and foreign laws regarding privacy of passenger and employee data that are not consistent in all countries in which we operate. In addition to the heightened level of concern regarding privacy of passenger data in the U.S., certain European government agencies have recently updated privacy regulations applicable to private industry, including airlines. Ongoing compliance with these evolving regulatory regimes is expected to result in additional operating costs and could have a material adverse effect on our operations and any future expansion.

The airline industry is subject to many forms of environmental regulation, including increased regulation to reduce emissions. Failure to comply with environmental regulations or the enactment of additional regulation could have a material adverse effect on our financial results.

Many aspects of our operations are subject to increasingly stringent federal, state, local and international laws governing the protection of the environment. Compliance with existing and future environmental laws and regulations can require significant expenditures and violations can lead to significant fines and penalties.

Future regulatory action concerning climate change, aircraft emissions and noise emissions could have a significant effect on the airline industry. In order to address aircraft emissions, ICAO, a UN specialized agency, formally adopted a global, market-based emission offset program known as CORSIA. This program establishes a medium-term goal for the aviation industry of achieving carbon-neutral growth in international aviation beginning in 2021, based on a 2019-2020 baseline. Certain CORSIA program details remain to be developed and could potentially be affected by political developments in participating countries or the results of the pilot phase of the program, and thus the impact of CORSIA cannot be fully predicted. However, CORSIA is expected to increase operating costs for airlines that operate internationally.

In addition to CORSIA, we may face additional regulation of aircraft emissions in the U.S. and abroad and become subject to further taxes, charges or additional requirements to obtain permits or purchase allowances or emission credits for greenhouse gas emissions in various jurisdictions. Additional regulation could result in taxation, regulatory or permitting requirements from multiple jurisdictions for the same operations and significant costs for us and the airline industry. In addition to direct costs, such regulation could result in increased fuel costs passed through from fuel suppliers affected by any such regulations. While the specific nature of future actions is hard to predict, new laws or regulations related to environmental matters adopted in the U.S. or other countries could impose significant additional costs on our operations.

Because of the global nature of our business, unfavorable global economic conditions or volatility in currency exchange rates could have a material adverse effect on our business, financial condition and operating results.

As a result of the discretionary nature of air travel, the airline industry has been cyclical and particularly sensitive to changes in economic conditions. Because we operate globally, with approximately 30% of our revenues from operations outside of the U.S., our business is subject to economic conditions throughout the world. During periods of unfavorable or volatile economic conditions in the global economy, demand for air travel can be significantly impacted as business and leisure travelers choose not to travel, seek alternative forms of transportation for short trips or conduct business using technological alternatives. If unfavorable economic conditions occur, particularly for an extended period, our business, financial condition and results of operations may be adversely affected. In addition, significant or volatile changes in exchange rates between the U.S. dollar and other currencies, and the imposition of exchange controls or other currency restrictions, may have a material adverse effect on our liquidity, financial conditions and results of operations.

Economic conditions following the United Kingdom's exit from the European Union could have a material adverse effect on our business.

Following a referendum in June 2016 in which voters in the U.K. approved an exit (often referred to as Brexit) from the European Union, the U.K.'s withdrawal became effective on January 31, 2020. A transition period will apply until the end of 2020 (or later, if extended) during which the pre-Brexit legal regime will continue to apply (including with respect to aviation) while the U.K. and European Union negotiate rules that will apply to their future relationship. It is unknown how that future relationship will be structured. Regardless of what happens between the U.K. and European Union, the U.S. - European Union Open Skies air services agreement will continue to apply to air services between the U.S. and the European Union and a new U.S.-U.K. Open Skies agreement will apply to air services between the U.S. and the U.K.

Currently, it is uncertain what will be the terms of the future relationship between the U.K. and the European Union on matters such as trade, customs, financial services and the movement of goods and people. Furthermore, post-Brexit ambiguity or changes in regulations could diminish the value of route authorities, slots or other assets owned by us or our joint venture partners and, therefore, could have a material adverse effect on our business and results of operations and financial condition.

The rapid spread of contagious illnesses can have a material adverse effect on our business and results of operations.

The rapid spread of a contagious illness such as a novel coronavirus, or fear of such an event, can have a material adverse effect on the demand for worldwide air travel and therefore have a material adverse effect on our business and results of operations. As a result of the outbreak of a novel coronavirus first identified in Wuhan, Hubei Province, China, we have temporarily ceased operations in China and the continued spread of the virus could have a significant adverse impact on the demand for air travel and, as a result, our financial results. Moreover, our operations could be negatively affected if employees are quarantined as the result of exposure to a contagious illness. Similarly, travel restrictions or operational issues resulting from the rapid spread of contagious illnesses in a part of the world in which we have significant operations may have a material adverse effect on our business and results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Flight Equipment

As part of our ongoing fleet transformation, during 2019 we took delivery of 79 mainline aircraft and nine CRJ-900 aircraft, and removed 52 aircraft from our active mainline fleet. Our operating aircraft fleet, commitments and options at December 31, 2019 are summarized in the following table:

| Aircraft Type | Current Fleet ⁽¹⁾ | | | Total | Average Age | Commitments | |
|---------------|------------------------------|---------------|-----------------|-------|-------------|-------------|---------|
| | Owned | Finance Lease | Operating Lease | | | Purchase | Options |
| B-717-200 | 13 | 22 | 56 | 91 | 18.3 | — | — |
| B-737-700 | 10 | — | — | 10 | 11.0 | — | — |
| B-737-800 | 73 | 4 | — | 77 | 18.3 | — | — |
| B-737-900ER | 88 | — | 42 | 130 | 3.3 | — | — |
| B-757-200 | 91 | 8 | 1 | 100 | 22.4 | — | — |
| B-757-300 | 16 | — | — | 16 | 16.9 | — | — |
| B-767-300ER | 56 | — | — | 56 | 23.6 | — | — |
| B-767-400ER | 21 | — | — | 21 | 19.0 | — | — |
| B-777-200ER | 8 | — | — | 8 | 20.1 | — | — |
| B-777-200LR | 10 | — | — | 10 | 10.8 | — | — |
| A220-100 | 27 | 1 | — | 28 | 0.6 | 17 | — |
| A220-300 | — | — | — | — | — | 50 | 50 |
| A319-100 | 55 | — | 2 | 57 | 17.9 | — | — |
| A320-200 | 58 | — | 4 | 62 | 24.4 | — | — |
| A321-200 | 53 | 12 | 31 | 96 | 1.7 | 31 | — |
| A321-200neo | — | — | — | — | — | 100 | 100 |
| A330-200 | 11 | — | — | 11 | 14.8 | — | — |
| A330-300 | 28 | — | 3 | 31 | 11.0 | — | — |
| A330-900neo | 3 | 1 | — | 4 | 0.5 | 33 | — |
| A350-900 | 13 | — | — | 13 | 1.8 | 16 | — |
| MD-88 | 41 | 6 | — | 47 | 28.7 | — | — |
| MD-90 | 30 | — | — | 30 | 22.7 | — | — |
| Total | 705 | 54 | 139 | 898 | 14.9 | 247 | 150 |

⁽¹⁾ Excludes certain aircraft we own, lease or have committed to purchase (including six CRJ-900 aircraft) that are operated by regional carriers on our behalf shown in the table below.

We have agreed to acquire four A350 aircraft from LATAM, which are included as purchase commitments in the table above. In addition, we plan to assume ten of LATAM's A350 purchase commitments from Airbus, with deliveries through 2025. For more information regarding our planned strategic alliance with LATAM, see Note 4 of the Notes to the Consolidated Financial Statements.

The following table summarizes the aircraft fleet operated by regional carriers on our behalf at December 31, 2019:

| Carrier | Fleet Type | | | | | Total |
|---------------------------------------|------------|---------|---------|-------------|-------------|-------|
| | CRJ-200 | CRJ-700 | CRJ-900 | Embraer 170 | Embraer 175 | |
| Endeavor Air, Inc. ⁽¹⁾ | 42 | 11 | 111 | — | — | 164 |
| SkyWest Airlines, Inc. | 75 | 11 | 43 | — | 56 | 185 |
| Republic Airline, Inc. | — | — | — | 22 | 28 | 50 |
| Compass Airlines, Inc. ⁽²⁾ | — | — | — | — | 24 | 24 |
| GoJet Airlines, LLC ⁽³⁾ | — | 12 | 7 | — | — | 19 |
| Total | 117 | 34 | 161 | 22 | 108 | 442 |

⁽¹⁾ Endeavor Air, Inc. is a wholly owned subsidiary of Delta.

⁽²⁾ In 2019, we and Compass Airlines, Inc., agreed not to renew our contract and to end our relationship by the end of 2020.

⁽³⁾ In 2019, we and GoJet Airlines, LLC, agreed not to renew our CRJ-700 contract and to end those operations by the end of 2020. In addition, in January 2020, we agreed not to renew our CRJ-900 contract and to end those operations by the end of 2020.

Aircraft Purchase Commitments

As part of a multi-year effort, we have been investing in new aircraft to provide more premium products, an improved customer experience, greater fuel efficiency and better operating economics. Our purchase commitments for additional aircraft at December 31, 2019 are detailed in the following table:

| Aircraft Purchase Commitments | Delivery in Calendar Years Ending | | | | |
|-------------------------------|-----------------------------------|------|------|------------|-------|
| | 2020 | 2021 | 2022 | After 2022 | Total |
| A220-100 | 17 | — | — | — | 17 |
| A220-300 | 6 | 12 | 18 | 14 | 50 |
| A321-200 | 31 | — | — | — | 31 |
| A321-200neo | 1 | 41 | 40 | 18 | 100 |
| A330-900neo ⁽¹⁾ | 7 | 11 | 8 | 7 | 33 |
| A350-900 | 4 | 2 | — | 10 | 16 |
| CRJ-900 | 6 | — | — | — | 6 |
| Total | 72 | 66 | 66 | 49 | 253 |

⁽¹⁾ Includes two A330-900neo lease commitments with one in each of 2020 and 2021.

Ground Facilities

Airline Operations

We lease most of the land and buildings that we occupy. Our largest aircraft maintenance base, various equipment maintenance, cargo, flight kitchen and training facilities and most of our principal offices are located at or near the Atlanta airport on land leased from the City of Atlanta. We lease ticket counters, gate areas, operating facilities and other terminal space in most of the airports that we serve. At most airports, we have entered into use agreements which provide for the non-exclusive use of runways, taxiways and other improvements and facilities; landing fees under these agreements normally are based on the number of landings and weight of aircraft. These leases and use agreements generally run for periods of less than one year to 30 years or more, and often contain provisions for periodic adjustments of lease rates, landing fees and other charges applicable under that type of agreement. We also lease aircraft maintenance, equipment maintenance and air cargo facilities at several airports. Our facility leases generally require us to pay the cost of providing, operating and maintaining such facilities, including, in some cases, amounts necessary to pay debt service on special facility bonds issued to finance their construction. We also lease computer facilities, marketing offices, reservations offices and other off-airport facilities in certain locations for varying terms.

We own our Atlanta reservations center, other real property in Atlanta, and reservations centers in Minot, North Dakota and Chisholm, Minnesota.

Refinery Operations

Our wholly owned subsidiaries, Monroe and MIPC, own and operate the Trainer refinery and related assets in Pennsylvania. The facility includes pipelines and terminal assets that allow the refinery to supply jet fuel to our airline operations throughout the Northeastern U.S., including our New York hubs at LaGuardia and JFK.

ITEM 3. LEGAL PROCEEDINGS

Capacity Antitrust Litigation

In July 2015, a number of purported class action antitrust lawsuits were filed alleging that Delta, American, United and Southwest had conspired to restrain capacity. The lawsuits were filed in the wake of media reports that the U.S. Department of Justice had served civil investigative demands upon these carriers seeking documents and information relating to this subject. The lawsuits have been consolidated into a single Multi-District Litigation proceeding in the U.S. District Court for the District of Columbia. In November 2016, the District Court denied the defendants' motion to dismiss the claims, and the matter is now proceeding through discovery. Delta believes the claims in these cases are without merit and is vigorously defending these lawsuits.

For a discussion of certain environmental matters, see "Business-Regulatory Matters-Environmental Matters" in Item 1.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

Part II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is listed on the New York Stock Exchange ("NYSE") under the trading symbol DAL.

Holders

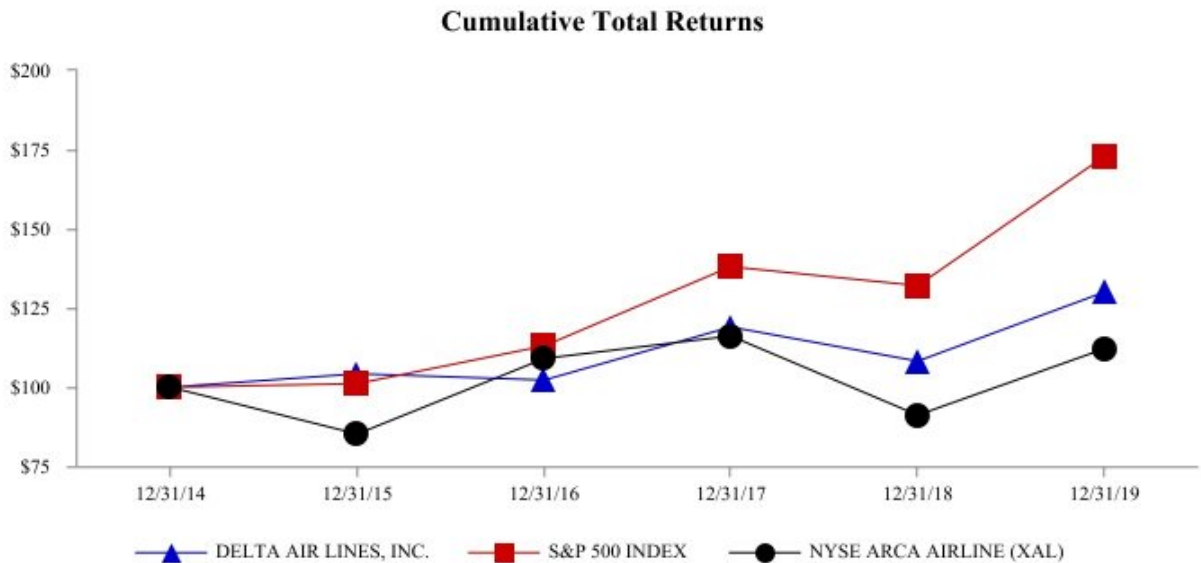
As of January 31, 2020, there were approximately 2,300 holders of record of our common stock.

Dividends

Our Board of Directors initiated a quarterly dividend program in the September 2013 quarter and has increased the quarterly dividend payment several times, most recently to \$0.4025 per share in the September 2019 quarter. The Board expects to be able to continue to pay cash dividends for the foreseeable future, subject to applicable limitations under Delaware law and compliance with covenants in certain of our credit facilities. Dividend payments are dependent upon our results of operations, financial condition, cash requirements, future prospects and other factors deemed relevant by the Board of Directors.

Stock Performance Graph

The following graph compares the cumulative total returns during the period from December 31, 2014 to December 31, 2019 of our common stock to the Standard & Poor's 500 Stock Index and the NYSE ARCA Airline Index. The comparison assumes \$100 was invested on December 31, 2014 in each of our common stock and the indices and assumes that all dividends were reinvested.



Issuer Purchases of Equity Securities

The following table presents information with respect to purchases of common stock we made during the December 2019 quarter. The total number of shares purchased includes shares repurchased pursuant to our \$5 billion share repurchase program, which was publicly announced on May 11, 2017 and will terminate no later than December 31, 2020. Some purchases made in the December 2019 quarter were made pursuant to a trading plan meeting the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934.

In addition, the table includes shares withheld from employees to satisfy certain tax obligations due in connection with grants of stock under the Delta Air Lines, Inc. Performance Compensation Plan (the "Plan"). The Plan provides for the withholding of shares to satisfy tax obligations. It does not specify a maximum number of shares that can be withheld for this purpose. The shares of common stock withheld to satisfy tax withholding obligations may be deemed to be "issuer purchases" of shares that are required to be disclosed pursuant to this Item.

| Period | Total Number of Shares Purchased | Average Price Paid Per Share | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Approximate Dollar Value (in millions) of Shares That May Yet Be Purchased Under the Plan or Programs |
|---------------|----------------------------------|------------------------------|--|---|
| October 2019 | 1,601,569 | \$ 54.35 | 1,601,569 | \$ 1,210 |
| November 2019 | 1,280,509 | \$ 56.64 | 1,280,509 | \$ 1,135 |
| December 2019 | 1,149,975 | \$ 57.35 | 1,149,975 | \$ 1,070 |
| Total | 4,032,053 | | 4,032,053 | |

ITEM 6. SELECTED FINANCIAL DATA

The following tables are derived from our audited Consolidated Financial Statements and present selected financial and operating data as of and for the five years ended December 31, 2019.

We adopted Accounting Standards Update No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" using the full retrospective transition method in 2018 and recast results from 2016 and 2017 including interim periods therein. Results from 2015 have not been recast for the adoption of this standard.

Consolidated Summary of Operations

| (in millions, except share data) | Year Ended December 31, | | | | |
|-----------------------------------|-------------------------|-----------|-----------|-----------|-----------|
| | 2019 | 2018 | 2017 | 2016 | 2015 |
| Operating revenue | \$ 47,007 | \$ 44,438 | \$ 41,138 | \$ 39,450 | \$ 40,704 |
| Operating expense | 40,389 | 39,174 | 35,172 | 32,454 | 32,902 |
| Operating income | 6,618 | 5,264 | 5,966 | 6,996 | 7,802 |
| Non-operating expense, net | (420) | (113) | (466) | (643) | (645) |
| Income before income taxes | 6,198 | 5,151 | 5,500 | 6,353 | 7,157 |
| Income tax provision | (1,431) | (1,216) | (2,295) | (2,158) | (2,631) |
| Net income | \$ 4,767 | \$ 3,935 | \$ 3,205 | \$ 4,195 | \$ 4,526 |
| | | | | | |
| Basic earnings per share | \$ 7.32 | \$ 5.69 | \$ 4.45 | \$ 5.59 | \$ 5.68 |
| Diluted earnings per share | \$ 7.30 | \$ 5.67 | \$ 4.43 | \$ 5.55 | \$ 5.63 |
| Cash dividends declared per share | \$ 1.51 | \$ 1.31 | \$ 1.02 | \$ 0.68 | \$ 0.45 |

Supplemental Information

The supplemental information below represents the adjustments used in our non-GAAP financial measures. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" where our non-GAAP financial measures are defined and reconciled. Amounts presented below are stated before consideration of income taxes, except for the impact of the Tax Cuts and Jobs Act.

| (in millions) | Year Ended December 31, | | | | |
|---|-------------------------|---------|--------|--------|----------|
| | 2019 | 2018 | 2017 | 2016 | 2015 |
| MTM adjustments and settlements on hedges | \$ 14 | \$ (53) | \$ 259 | \$ 450 | \$ 1,301 |
| Restructuring and other | — | — | — | — | (35) |
| Equity investment MTM adjustments | (14) | 29 | (8) | 115 | 26 |
| MTM adjustments on investments | 13 | (14) | — | — | — |
| Tax Cuts and Jobs Act | — | — | (394) | — | — |

Consolidated Balance Sheet Data

We adopted Accounting Standards Update No. 2016-02, "Leases (Topic 842)," using the modified retrospective approach in 2018. Financial statements prior to 2018 were not recast for the adoption of this standard.

| (in millions) | December 31, | | | | |
|--|--------------|-----------|-----------|-----------|-----------|
| | 2019 | 2018 | 2017 | 2016 | 2015 |
| Total assets | \$ 64,532 | \$ 60,266 | \$ 53,671 | \$ 51,850 | \$ 53,134 |
| Debt and finance leases (including current maturities) | 11,160 | 9,771 | 8,834 | 7,332 | 8,329 |
| Stockholders' equity | 15,358 | 13,687 | 12,530 | 11,277 | 10,850 |

Other Financial and Statistical Data (Unaudited)

| Consolidated ⁽¹⁾ | Year Ended December 31, | | | | |
|---|-------------------------|---------|---------|---------|---------|
| | 2019 | 2018 | 2017 | 2016 | 2015 |
| Revenue passenger miles (in millions) | 237,680 | 225,243 | 217,712 | 213,098 | 209,625 |
| Available seat miles (in millions) | 275,379 | 263,365 | 254,325 | 251,867 | 246,764 |
| Passenger mile yield | 17.79 ¢ | 17.65 ¢ | 16.97 ¢ | 16.81 ¢ | 16.59 ¢ |
| Passenger revenue per available seat mile | 15.35 ¢ | 15.09 ¢ | 14.53 ¢ | 14.22 ¢ | 14.10 ¢ |
| Total revenue per available seat mile | 17.07 ¢ | 16.87 ¢ | 16.18 ¢ | 15.66 ¢ | 16.50 ¢ |
| Operating cost per available seat mile | 14.67 ¢ | 14.87 ¢ | 13.83 ¢ | 12.89 ¢ | 13.33 ¢ |
| Passenger load factor | 86.3 % | 85.5 % | 85.6 % | 84.6 % | 84.9 % |
| Fuel gallons consumed (in millions) | 4,214 | 4,113 | 4,032 | 4,016 | 3,988 |
| Average price per fuel gallon ⁽²⁾ | \$ 2.02 | \$ 2.20 | \$ 1.68 | \$ 1.49 | \$ 1.90 |
| Full-time equivalent employees, end of period | 91,224 | 88,680 | 86,564 | 83,756 | 82,949 |

⁽¹⁾ Includes the operations of our regional carriers under capacity purchase agreements. Full-time equivalent employees exclude employees of regional carriers that we do not own.

⁽²⁾ Includes the impact of fuel hedge activity and refinery segment results.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This section of this Form 10-K does not address certain items regarding the year ended December 31, 2017. Discussion and analysis of 2017 and year-to-year comparisons between 2018 and 2017 not included in this Form 10-K can be found in "Item 7. Management's Discussion and Analysis" of our Annual Report on Form 10-K for the year ended December 31, 2018.

Year in Review

Delta had a strong year in 2019, delivering record financial results and making significant progress on strategic priorities. We leveraged our brand momentum to drive strong revenue growth and improvement in pre-tax income, margin, earnings per share and free cash flow over 2018. Strategic accomplishments during the year include our renewed agreement with American Express and announcing plans to enter into a strategic alliance with LATAM.

Our pre-tax income for 2019 was \$6.2 billion, representing a \$1 billion, or 20%, increase compared to the prior year. Diluted earnings per share of \$7.30 improved 29% over 2018. Our \$8.4 billion of cash flows from operations helped fund \$4.9 billion in capital expenditures, resulting in free cash flow of \$4.2 billion, representing a \$1.8 billion improvement to the prior year. We returned 72% of free cash flow, or \$3 billion, to shareholders through share repurchases and dividends. The improvement in earnings and cash flow primarily resulted from a \$2.6 billion increase in revenue and lower fuel expense on an 8% decrease in the market price per gallon of fuel and improved fuel efficiency.

We continued to run the world's most reliable airline and set a new record for zero cancel days with 165 cancel-free days across the system and 281 on our mainline operations. Industry-leading operational performance, our culture of service and continued product investments supported record customer satisfaction scores. In 2019, we increased net promoter scores in every geographic region, highlighted by a 5-point improvement in the Domestic region to 50%.

Strong Brand Drives Revenue Growth

Compared to 2018, our operating revenue increased \$2.6 billion, or 5.8%, on balanced growth across our diverse revenue streams, with premium product ticket revenue driving nearly half of the improvement, and strong growth in both loyalty and MRO revenue. Total revenue per available seat mile ("TRASM") and TRASM, adjusted (a non-GAAP financial measure) increased 1.2% and 2.8%, respectively, compared to the prior year, led by (1) unit revenue growth in our Domestic and Latin regions, (2) demand strength in both business and leisure segments and (3) strong growth in premium products and non-ticket revenues. Total loyalty revenue grew 18% in 2019.

Solid Cost Performance

Operating Expense. Operating expense increased \$1.2 billion, or 3.1%, primarily due to higher revenue- and capacity-related expenses including wages and profit sharing for employees and contracted services expense. Salaries and related costs were higher due to pay rate increases for eligible employees implemented during 2019, while profit sharing was higher due to increased profitability in 2019. The increase in contracted services expense predominantly relates to services performed by Delta Global Services ("DGS") that were recorded in salaries and related costs prior to the sale of that business in December 2018. These increases were partially offset by lower fuel expense on an 8% decrease in the market price per gallon of fuel and improved fuel efficiency driven by our ongoing fleet transformation.

Our operating cost per available seat mile ("CASM") decreased 1.3% to 14.67 cents compared to 2018, primarily due to lower fuel expense and a 4.6% increase in capacity. Non-fuel unit costs ("CASM-Ex", a non-GAAP financial measure) increased 2.0% to 10.52 cents due to the higher revenue- and capacity-related expense increases discussed above.

Non-Operating Expense. Total non-operating expense was \$420 million during 2019 compared to \$113 million in 2018, primarily due to an increase in pension and related expense compared to the prior year, partially offset by higher gains on investments.

Expanding Our Global Network

In 2019, international revenues grew 2.7% on a 3.3% increase in capacity. We continued to make significant progress in expanding our global reach by acquiring an equity stake in Hanjin-KAL, the largest shareholder of Korean Air, and announcing plans to enter into a strategic alliance with LATAM and completing a tender offer to acquire a 20% equity stake which closed in January 2020. Effective in January 2020, we combined our separate transatlantic joint venture agreements with Air France-KLM and Virgin Atlantic into a single three-party transatlantic joint venture. In addition, we continue to make progress on our joint venture agreement with WestJet with respect to trans-border routes between the U.S. and Canada. This agreement remains subject to required regulatory approvals.

Investing for the Future

Our \$8.4 billion of cash flows from operations helped fund \$4.9 billion in capital expenditures for the business. As part of our multi-year fleet transformation, we took delivery of 88 new aircraft, including A321-200s, B-737-900ERs, A350-900s, A330-900s, A220-100s and CRJ-900s. These deliveries allowed for the retirement of older, less fuel efficient aircraft, including the announced retirement of our MD-90 fleet by the end of 2022. We also made significant investments in cabin interior refurbishments, Sky Clubs and technology.

The non-GAAP financial measures free cash flow, TRASM, adjusted and CASM-Ex used above, are defined and reconciled in "Supplemental Information" below.

Results of Operations

Operating Revenue

| (in millions) | Year Ended December 31, | | Increase (Decrease) | % Increase (Decrease) |
|--|-------------------------|-----------|------------------------|--------------------------|
| | 2019 | 2018 | | |
| Ticket - Main cabin | \$ 21,919 | \$ 21,196 | \$ 723 | 3.4 % |
| Ticket - Business cabin and premium products | 14,989 | 13,754 | 1,235 | 9.0 % |
| Loyalty travel awards | 2,900 | 2,651 | 249 | 9.4 % |
| Travel-related services | 2,469 | 2,154 | 315 | 14.6 % |
| Total passenger revenue | \$ 42,277 | \$ 39,755 | \$ 2,522 | 6.3 % |
| Cargo | 753 | 865 | (112) | (12.9) % |
| Other | 3,977 | 3,818 | 159 | 4.2 % |
| Total operating revenue | \$ 47,007 | \$ 44,438 | \$ 2,569 | 5.8 % |
| TRASM (cents) | 17.07 ¢ | 16.87 ¢ | 0.20 ¢ | 1.2 % |
| Third-party refinery sales ⁽¹⁾ | (0.04) | (0.21) | 0.17 | NM |
| DGS sale adjustment ⁽¹⁾ | — | (0.09) | 0.09 | NM |
| TRASM, adjusted (cents) | 17.03 ¢ | 16.57 ¢ | 0.46 ¢ | 2.8 % |

⁽¹⁾ For additional information on adjustments to TRASM, see "Supplemental Information" below.

Passenger Revenue

Ticket revenues, including both main cabin and business cabin and premium products increased \$2.0 billion compared to the year ended December 31, 2018. Business cabin and premium products ticket revenue includes revenues from fare products other than main cabin, including Delta One, Delta Premium Select, First Class and Comfort+. The growth in ticket revenue was driven by strength in the Delta brand and products, capitalizing on healthy industry business and leisure demand. We continue to take delivery of new aircraft that include more premium seats, while also generating higher paid load factor for premium products.

Loyalty travel awards revenue increased \$249 million compared to the year ended December 31, 2018 due to growth in mileage redemptions. Travel-related services increased \$315 million compared to the year ended December 31, 2018 primarily due to increases in checked baggage and ticket change revenues.

Passenger Revenue by Geographic Region

| (in millions) | Year Ended December 31, 2019 | Increase (Decrease) vs. Year Ended December 31, 2018 | | | | | |
|-------------------------|---------------------------------|--|----------------|--------------------|-------------------------|---------|-------------|
| | | Passenger Revenue | RPMs (Traffic) | ASMs (Capacity) | Passenger Mile Yield | PRASM | Load Factor |
| Domestic | \$ 30,367 | 7.8 % | 6.8 % | 5.3 % | 1.0 % | 2.4 % | 1.2 pts |
| Atlantic | 6,381 | 3.5 % | 4.8 % | 4.4 % | (1.3) % | (0.9) % | 0.4 pts |
| Latin America | 3,002 | 4.0 % | (0.1) % | (0.9) % | 4.0 % | 4.9 % | 0.7 pts |
| Pacific | 2,527 | (0.6) % | 3.5 % | 5.0 % | (4.0) % | (5.3) % | (1.2) pts |
| Total passenger revenue | \$ 42,277 | 6.3 % | 5.5 % | 4.6 % | 0.8 % | 1.7 % | 0.8 pts |

Passenger revenue increased \$2.5 billion, or 6.3%, compared to the prior year. PRASM increased 1.7% and passenger mile yield increased 0.8% on 4.6% higher capacity. Load factor increased 0.8 pts from the prior year to 86.3%.

Domestic unit revenue increased 2.4%, resulting from our commercial initiatives, including our premium products, as well as high load factors driven by a combination of strong demand and limited industry capacity growth.

Passenger revenue related to our international regions increased 2.7% year-over-year primarily due to capacity growth in the Atlantic region and yield strength in the Latin America region. This growth in passenger revenue was achieved despite the negative impact of foreign currency fluctuations.

Atlantic unit revenues decreased due to foreign currency fluctuations between the U.S. dollar and the Euro and British pound, the uncertain economic outlook in Europe and increased industry capacity. These conditions were partially offset by growth in premium product demand and strong U.S. point of sale.

Unit revenue increased in Latin America principally as a result of yield growth, mainly due to reduced industry capacity in Brazil and improvements in Mexico beach markets. In the September 2019 quarter we announced our plan to enter into a strategic alliance with LATAM, which is expected to provide great customer convenience, a more seamless travel experience and to better connect customers between North and South America.

Unit revenue decreased in the Pacific region primarily on persistent economic and trade related uncertainty, foreign currency fluctuations and increased capacity to China, Japan and Korea due to our network transformation. Despite these challenges, our joint venture with Korean Air has enabled solid traffic growth and we have continued to reshape our Pacific network with the announcements that in the March 2020 quarter we will transfer our U.S.-Tokyo services from Narita to Haneda airport, Tokyo's preferred airport for corporate customers, and shift our Beijing service to the new Beijing Daxing airport.

Starting in February 2020, we temporarily suspended flights between the U.S. and China as the result of an outbreak of a novel coronavirus originating in Wuhan, Hubei Province, China. We have suspended flights between the U.S. and China through April 30, will continue to monitor the situation closely and may make additional adjustments.

Other Revenue

| (in millions) | Year Ended December 31, | | Increase (Decrease) | % Increase (Decrease) |
|-----------------------------------|-------------------------|----------|------------------------|--------------------------|
| | 2019 | 2018 | | |
| Loyalty program | \$ 1,962 | \$ 1,459 | \$ 503 | 34.5 % |
| Ancillary businesses and refinery | 1,297 | 1,801 | (504) | (28.0) % |
| Miscellaneous | 718 | 558 | 160 | 28.7 % |
| Total other revenue | \$ 3,977 | \$ 3,818 | \$ 159 | 4.2 % |

Loyalty Program. Loyalty program revenues relate primarily to brand usage by third parties and include the redemption of miles for non-travel awards.

Effective January 1, 2019, we amended our co-brand agreement with American Express, and we also amended other agreements with American Express during the March quarter. The new agreements increase the value we receive and extend the terms to 2029. Under the agreements, we sell miles to American Express and allow American Express to market its services or products using our brand and customer database. The products and services sold with the miles (such as award travel, priority boarding, baggage fee waivers, lounge access and the use of our brand) are consistent with previous agreements. We continue to use the accounting method that allocates the consideration received based on the relative selling prices of those products and services. The increase in loyalty program revenues are primarily related to brand usage by American Express.

Ancillary Businesses and Refinery. Ancillary businesses and refinery includes aircraft maintenance provided to third parties, our vacation wholesale operations, our private jet operations and refinery sales to third parties. Refinery sales to third parties, which are at or near cost, decreased \$451 million compared to 2018. The 2018 results also included \$244 million of third-party revenue from DGS, which was sold in December 2018. These decreases were mitigated by growth in our MRO revenues, which increased \$175 million to \$877 million during 2019.

In January 2020, we combined Delta Private Jets, our wholly owned subsidiary which provides private jet operations, with Wheels Up. Upon closing, we received a 27% equity stake in Wheels Up. Delta Private Jets will no longer be consolidated and annual revenues of approximately \$200 million, which have historically been generated ratably through the year, will no longer be reflected in ancillary businesses and refinery revenue.

Miscellaneous. Miscellaneous revenue is primarily composed of lounge access and codeshare revenues, with lounge access revenue driving the majority of the \$160 million increase compared to 2018. We continually enhance the customer experience at our lounges, which also included opening three new Sky Clubs during 2019 in Austin, Phoenix and New Orleans.

Operating Expense

| (in millions) | Year Ended December 31, | | Increase (Decrease) | % Increase (Decrease) |
|--|-------------------------|-----------|------------------------|--------------------------|
| | 2019 | 2018 | | |
| Salaries and related costs | \$ 11,225 | \$ 10,743 | \$ 482 | 4.5 % |
| Aircraft fuel and related taxes | 8,519 | 9,020 | (501) | (5.6) % |
| Regional carriers expense, excluding fuel | 3,584 | 3,438 | 146 | 4.2 % |
| Contracted services | 2,641 | 2,175 | 466 | 21.4 % |
| Depreciation and amortization | 2,581 | 2,329 | 252 | 10.8 % |
| Passenger commissions and other selling expenses | 1,993 | 1,941 | 52 | 2.7 % |
| Landing fees and other rents | 1,762 | 1,662 | 100 | 6.0 % |
| Aircraft maintenance materials and outside repairs | 1,751 | 1,575 | 176 | 11.2 % |
| Profit sharing | 1,643 | 1,301 | 342 | 26.3 % |
| Passenger service | 1,251 | 1,178 | 73 | 6.2 % |
| Ancillary businesses and refinery | 1,245 | 1,695 | (450) | (26.5) % |
| Aircraft rent | 423 | 394 | 29 | 7.4 % |
| Other | 1,771 | 1,723 | 48 | 2.8 % |
| Total operating expense | \$ 40,389 | \$ 39,174 | \$ 1,215 | 3.1 % |

Salaries and Related Costs. The increase in salaries and related costs is primarily due to pay rate increases for eligible employees. This increase is partially offset by salaries for DGS employees, which are no longer included in salaries and related costs following the sale of that business in December 2018. DGS-related expenses are now recorded in contracted services.

Aircraft Fuel and Related Taxes. Fuel expense decreased \$501 million compared to the prior year despite a 4.6% increase in capacity, due to an 8% decrease in the market price per gallon of fuel and improved fuel efficiency driven by our investment in new aircraft.

The table below shows the impact of hedging and the refinery on fuel expense and average price per gallon, adjusted (non-GAAP financial measures):

| (in millions, except per gallon data) ⁽¹⁾ | Year Ended December 31, | | | Increase (Decrease) | Average Price Per Gallon | | |
|--|-------------------------|----------|-------------------------|------------------------|--------------------------|-----------|--|
| | Year Ended December 31, | | Year Ended December 31, | | Increase (Decrease) | | |
| | 2019 | 2018 | 2019 | | | 2018 | |
| Fuel purchase cost ⁽²⁾ | \$ 8,581 | \$ 9,131 | \$ (550) | \$ 2.04 | \$ 2.22 | \$ (0.18) | |
| Fuel hedge impact | 14 | (53) | 67 | — | (0.01) | 0.01 | |
| Refinery segment impact | (76) | (58) | (18) | (0.02) | (0.01) | (0.01) | |
| Total fuel expense | \$ 8,519 | \$ 9,020 | \$ (501) | \$ 2.02 | \$ 2.20 | \$ (0.18) | |
| MTM adjustments and settlements on hedges ⁽³⁾ | (14) | 53 | (67) | — | 0.01 | (0.01) | |
| Total fuel expense, adjusted | \$ 8,505 | \$ 9,073 | \$ (568) | \$ 2.02 | \$ 2.21 | \$ (0.19) | |

⁽¹⁾ This reconciliation may not calculate exactly due to rounding.

⁽²⁾ Market price for jet fuel at airport locations, including related taxes and transportation costs.

⁽³⁾ MTM adjustments and settlements on hedges include the effects of the derivative transactions disclosed in Note 5 of the Notes to the Consolidated Financial Statements. For additional information and the reason for adjusting fuel expense, see "Supplemental Information" below.

Contracted Services. The increase in contracted services expense predominantly relates to services performed by DGS that were recorded in salaries and related costs prior to the sale of that business in December 2018. During 2018, DGS incurred expenses of approximately \$350 million related to internal Delta services that were primarily recorded in salaries and related costs. After the sale of DGS to a third party, we now record these expenses and our portion of the new entity's ("AirCo") financial results under the equity method of accounting, in contracted services.

Depreciation and Amortization. The increase in depreciation and amortization primarily results from \$79 million of accelerated depreciation due to the decision to early retire our MD-90 fleet by the end of 2022, new aircraft deliveries, fleet modifications and technology enhancements. As we take delivery of new aircraft, we continue to evaluate our current fleet compared to network requirements. See Note 11 of the Notes to the Consolidated Financial Statements for additional information on the planned early retirement of our MD-90 fleet.

In addition to investing in our fleet, we have also increased our technology investments in an effort to enhance interactions with our customers and allow us to deliver more personalized service, further enhancing the customer experience and strengthening our brand and competitive position. During 2019, we delivered several capabilities that enable our front-line employees to personalize their interactions with our customers, added self-service features on the FlyDelta app, including automatic international check-in, integrated security wait times and the ability to pre-select meals in Delta One and domestic First Class. In addition, we expanded facial recognition biometric boarding for international travelers in the Atlanta, Minneapolis-St. Paul and Salt Lake City airports. These increased capital expenditures have led to a corresponding increase in depreciation and amortization.

Aircraft Maintenance Materials and Outside Repairs. Aircraft maintenance materials and outside repairs consist of costs associated with the maintenance of aircraft used in our operations. The increase primarily relates to a higher volume of scheduled engine overhauls on certain aircraft during the second half of 2019.

Profit Sharing. Profit sharing expense increased \$342 million to \$1.6 billion, marking the sixth consecutive year that Delta employees will receive over \$1 billion in recognition of their contributions to the company's performance. The increase in profit sharing is related to higher profit during the year. Our profit sharing program pays 10% to all eligible employees for the first \$2.5 billion of annual profit and 20% of annual profit above \$2.5 billion.

Ancillary Businesses and Refinery. Ancillary businesses and refinery includes expenses associated with aircraft maintenance services we provide to third parties, our vacation wholesale operations, our private jet operations and refinery sales to third parties. Expenses related to refinery sales to third parties, which are at or near cost, decreased \$451 million compared to the prior year. In addition, approximately \$200 million of costs related to services performed by DGS on behalf of third parties were recorded in ancillary businesses and refinery prior to the sale of that business in December 2018. These decreases were partially offset by growth in our MRO business, as discussed above.

In January 2020, we combined Delta Private Jets, our wholly owned subsidiary which provides private jet operations, with Wheels Up. Upon closing, we received a 27% equity stake in Wheels Up. Delta Private Jets will no longer be consolidated and annual costs of approximately \$200 million, which have historically been incurred ratably through the year, will no longer be reflected in ancillary businesses and refinery expense.

Non-Operating Results

| (in millions) | Year Ended December 31, | | Favorable (Unfavorable) |
|----------------------------------|-------------------------|----------|----------------------------|
| | 2019 | 2018 | 2019 vs. 2018 |
| Interest expense, net | \$ (301) | \$ (311) | \$ 10 |
| Gain/(loss) on investments, net | 119 | 38 | 81 |
| Miscellaneous, net | (238) | 160 | (398) |
| Total non-operating expense, net | \$ (420) | \$ (113) | \$ (307) |

Interest Expense. At December 31, 2018, the principal amount of debt and finance leases was \$9.7 billion. During 2019, we issued \$1.5 billion of unsecured notes and \$500 million of aircraft secured EETC debt. As a result of the debt issuances, partially offset by principal payments, the amount of debt and finance leases was \$11.0 billion at December 31, 2019. Despite the increase in debt during the current year, interest expense decreased \$10 million compared to the prior year due to recent refinancing transactions at lower interest rates resulting from our improvement to investment grade credit rating in recent years and the favorable interest rate environment.

Gain/(Loss) on Investments. Gain/(loss) on investments reflects the gains and losses on our equity investments. The increase compared to 2018 primarily results from unrealized gains in Hanjin-KAL and Air France-KLM.

Miscellaneous. Miscellaneous, net is primarily composed of pension and related expense, our proportionate share of earnings from our equity investments in Virgin Atlantic and Grupo Aeroméxico, charitable contributions and foreign exchange gains/(losses).

The change from 2019 compared to 2018 primarily results from the unfavorable movement in pension and related expense and the sale of our DGS entity in 2018. The pension and related expense was \$65 million in 2019 compared to a benefit of \$245 million in 2018. In 2018, the sale of our DGS entity to a subsidiary of Argenbright Holdings, LLC resulted in a gain of \$91 million.

Our equity investment earnings and foreign exchange gains/(losses) fluctuate and thus impact the comparability of miscellaneous from period to period.

Income Taxes

Our effective tax rate for 2019 was 23.1%. We expect our annual effective tax rate to be between 23% and 24% for 2020. At December 31, 2019, we had approximately \$1.9 billion of U.S. federal pre-tax net operating loss carryforwards, which do not begin to expire until 2027. We believe we will utilize the majority of our remaining federal net operating losses and tax credits during 2020.

For more information about our income taxes, see Note 12 of the Notes to the Consolidated Financial Statements.

Refinery Segment

The refinery primarily produces gasoline, diesel and jet fuel. Monroe exchanges the non-jet fuel products the refinery produces with third parties for jet fuel consumed in our airline operations. The jet fuel produced and procured through exchanging gasoline and diesel fuel produced by the refinery provides approximately 200,000 barrels per day, or approximately 75% of our consumption, for use in our airline operations. We believe that the jet fuel supply resulting from the refinery's operation contributes to reducing the market price of jet fuel and thus lowers our cost of jet fuel compared to what it otherwise would be.

During the December 2018 quarter, the refinery completed a planned maintenance event ("turnaround") and did not produce any refined products for approximately 60 days. The turnaround was in accordance with the long-term maintenance plan for the facility to allow for the safe completion of major repairs and upgrades.

The refinery recorded operating revenues of \$5.6 billion in 2019, compared to \$5.5 billion in 2018. Operating revenues in 2019 were primarily composed of \$4.0 billion of non-jet fuel products exchanged with third parties to procure jet fuel, \$1.1 billion of sales of jet fuel to the airline segment and \$395 million of non-jet fuel product sales. Refinery revenues increased compared to the prior year due to higher throughput and yields offset by lower costs of crude oil leading to lower pricing for associated refined products.

The refinery recorded operating income of \$76 million and \$58 million in 2019 and 2018, respectively. The refinery's operating income in 2019 was higher primarily due to the 60 day cessation of operations during the turnaround in the December 2018 quarter and favorable market conditions year over year.

A refinery is subject to annual EPA requirements to blend renewable fuels into the gasoline and on-road diesel fuel it produces. Alternatively, a refinery may purchase renewable energy credits, called RINs, from third parties in the secondary market. The refinery operated by Monroe purchases the majority of its RINs requirement in the secondary market. Observable RINs prices stabilized in 2019 after significant fluctuations in previous years, with Monroe incurring \$58 million in RINs compliance costs during the current year.

For more information regarding the refinery's results, see Note 15 of the Notes to the Consolidated Financial Statements.

Financial Condition and Liquidity

We expect to meet our cash needs for the next 12 months with cash flows from operations, cash and cash equivalents, restricted cash equivalents and financing arrangements. As of December 31, 2019, we had \$6.0 billion in unrestricted liquidity, consisting of \$2.9 billion in cash and cash equivalents and \$3.1 billion in undrawn revolving credit facilities. During 2019, we used existing cash and cash generated from operations to fund capital expenditures of \$4.9 billion, and return \$3.0 billion to shareholders.

Sources of Liquidity

Operating Activities

Cash flows from operating activities continue to provide our primary source of liquidity. We generated cash flows from operations of \$8.4 billion in 2019 and \$7.0 billion in 2018. We also expect to continue generating cash flows from operations in 2020.

Our operating cash flows are impacted by the following factors:

Seasonality of Advance Ticket Sales. We sell tickets for air travel in advance of the customer's travel date. When we receive a cash payment at the time of sale, we record the cash received on advance sales as deferred revenue in air traffic liability. The air traffic liability increases during the winter and spring as advanced ticket sales grow prior to the summer peak travel season and decreases during the summer and fall months.

Fuel. Fuel expense represented approximately 21% of our total operating expenses for 2019. The market price for jet fuel is volatile, which can impact the comparability of our periodic cash flows from operations.

Pension Contributions. We sponsor defined benefit pension plans for eligible employees and retirees. These plans are closed to new entrants and are frozen for future benefit accruals. Our funding obligations for these plans are governed by the Employee Retirement Income Security Act, as modified by the Pension Protection Act of 2006. We had no minimum funding requirements in 2019. However, during 2019, we voluntarily contributed \$1 billion to these plans. We contributed \$500 million to these plans during 2018. We have no minimum funding requirements in 2020, but we plan to voluntarily contribute approximately \$500 million to these plans.

Profit Sharing. Our broad-based employee profit sharing program provides that, for each year in which we have an annual pre-tax profit, as defined by the terms of the program, we will pay a specified portion of that profit to employees. In determining the amount of profit sharing, the program defines profit as pre-tax profit adjusted for profit sharing and certain other items.

We pay profit sharing annually in February. We paid \$1.3 billion in 2019 and \$1.1 billion in 2018 to our employees in recognition of their contributions toward meeting our financial goals. During the year ended December 31, 2019, we recorded \$1.6 billion in profit sharing expense based on 2019 pre-tax profit, which we will pay to employees in February 2020.

Effective October 1, 2017, we aligned our profit sharing plans under a single formula. Under this formula, our profit sharing program pays 10% to all eligible employees for the first \$2.5 billion of annual profit and 20% of annual profit above \$2.5 billion. Prior to that time, the profit sharing program for pilots used this formula but in the first nine months of 2017, the profit sharing program for merit, ground and flight attendant employees paid 10% of annual profit and, if we exceeded our prior-year results, the program paid 20% of the year-over-year increase in profit to eligible employees.

Investing Activities

Capital Expenditures. Our capital expenditures were \$4.9 billion in 2019 and \$5.2 billion in 2018. Our capital expenditures are primarily related to the purchase of aircraft, fleet modifications and technology enhancements.

As part of a multi-year initiative, we are investing in aircraft intended to provide more premium products, improved customer experience, greater fuel efficiency and better operating economics. We have committed to future aircraft purchases that will require significant capital investment and have obtained, but are under no obligation to use, long-term financing commitments for a substantial portion of the purchase price of a significant number of these aircraft. We expect that we will invest approximately \$4.5 billion in 2020 primarily for aircraft, including deliveries and advance deposit payments, as well as aircraft modifications, the majority of which relate to cabin enhancements throughout our fleet. We expect that the investments in 2020 will be funded principally through cash flows from operations.

In October 2019, the Office of the U.S. Trade Representative announced a 10% tariff on new aircraft imported from Europe. We are evaluating the impact of this announcement on our future Airbus deliveries.

Equity Investments. During 2019, we acquired 10% of the outstanding shares of Hanjin-KAL, the largest shareholder of Korean Air for \$170 million.

In September 2019 we announced our plan to enter into a strategic alliance with LATAM Airlines Group S.A ("LATAM") as well as acquire up to a 20% interest through a tender offer. In January 2020 we acquired 20% of the shares of LATAM for \$1.9 billion, or \$16 per share.

In addition, to support the establishment of the strategic alliance, we will invest \$350 million, \$200 million of which was disbursed in 2019. An additional \$50 million is scheduled to be disbursed during 2020. As part of our planned strategic alliance with LATAM, we have also agreed to acquire four A350 aircraft from LATAM and plan to assume ten of LATAM's A350 purchase commitments from Airbus, with deliveries through 2025.

This alliance is expected to generate new growth opportunities, building upon Delta's and LATAM's global footprint and joint ventures, including Delta's existing partnership with Aeroméxico. We have sold our GOL ownership stake and are winding down our commercial agreements with GOL to facilitate the formation of our strategic alliance with LATAM.

See Note 4 of the Notes to the Consolidated Financial Statements for more information on our equity investments.

Los Angeles International Airport ("LAX") Construction. We executed a modified lease agreement during 2016 with the City of Los Angeles ("the City") which owns and operates LAX, and announced plans to modernize, upgrade and connect Terminals 2 and 3 at LAX. Under the lease agreement, we have relocated certain airlines and other tenants from Terminals 2 and 3 to Terminals 5 and 6 and undertaken various initial projects to enable operations from Terminals 2 and 3 during the project. We are now designing and constructing the redevelopment of Terminal 3 and enhancement of Terminal 2, which also includes rebuilding the ticketing and arrival halls and security checkpoint, construction of core infrastructure to support the City's planned airport people mover, ramp improvements and construction of a secure connector to the north side of the Tom Bradley International Terminal. Construction is expected to be completed by 2024.

Under the lease agreement and subsequent project component approvals by the City's Board of Airport Commissioners, the City has appropriated to date approximately \$1.6 billion to purchase completed project assets. The lease allows for a maximum reimbursement by the City of \$1.8 billion. Costs we incur in excess of such maximum will not be reimbursed by the City.

A substantial majority of the project costs are being funded through the Regional Airports Improvement Corporation ("RAIC"), a California public benefit corporation, using an \$800 million revolving credit facility provided by a group of lenders. The credit facility was executed during 2017 and amended in 2019 and we have guaranteed the obligations of the RAIC under the credit facility. Loans made under the credit facility are being repaid with the proceeds from the City's purchase of completed project assets. Using funding provided by cash flows from operations and/or the credit facility, we spent approximately \$176 million on this project during 2019 and expect to spend approximately \$240 million during 2020.

New York-LaGuardia Redevelopment. As part of the terminal redevelopment project at LaGuardia Airport, we are partnering with the Port Authority of New York and New Jersey ("Port Authority") to replace Terminals C and D with a new state-of-the-art terminal facility consisting of 37 gates across 4 concourses connected to a central headhouse. The terminal will feature a new, larger Delta Sky Club, wider concourses, more gate seating and 30 percent more concessions space than the existing terminals. The facility will also offer direct access between the parking garage and terminal and improved roadways and drop-off/pick-up areas. The design of the new terminal will integrate sustainable technologies and improvements in energy efficiency. Construction will be phased to limit passenger inconvenience and is expected to be completed by 2026.

In connection with the redevelopment, during 2017, we entered into an amended and restated terminal lease with the Port Authority with a term through 2050. Pursuant to the lease agreement we will (1) fund (through debt issuance and existing cash) and undertake the design, management and construction of the terminal and certain off-premises supporting facilities, (2) receive a Port Authority contribution of \$600 million to facilitate construction of the terminal and other supporting infrastructure, (3) be responsible for all operations and maintenance during the term of the lease and (4) have preferential rights to all gates in the terminal subject to Port Authority requirements with respect to accommodation of designated carriers. We currently expect our net project cost to be approximately \$3.3 billion and we bear the risks of project construction, including any potential cost over-runs. Using funding provided by cash flows from operations and/or financing arrangements, we spent approximately \$562 million on this project during 2019 and expect to spend approximately \$700 million during 2020.

In the December 2019 quarter, we opened Concourse G, the first of the four new concourses housing seven of the 37 new gates. Not only does this deliver the first direct impact to the Delta passenger experience, it also represents the first major phasing milestone. This new concourse will allow us to vacate portions of the existing terminals which can then be demolished and made ready for the next phase of construction. The next major milestone will be the opening of the headhouse and Concourse E, which is scheduled for 2022.

Financing Activities

Debt and Finance Leases. In February 2019, we entered into a \$1 billion term loan issued by two lenders, which was subsequently repaid by the end of the June 2019 quarter. We used the net proceeds of the term loan to accelerate planned 2019 repurchases under our share repurchase program.

In the March 2019 quarter, we completed a \$500 million offering of Pass Through Certificates, Series 2019-1 ("2019-1 EETC") through a pass through trust. The net proceeds of the offering were used for general corporate purposes, including to refinance debt maturing during 2019.

In October 2019 we issued \$1.5 billion in aggregate principal amount of unsecured notes, consisting of \$900 million of 2.9% Notes due 2024 and \$600 million of 3.75% Notes due 2029 (collectively, the "Notes"). We used the net proceeds from the offering of these Notes to fund a portion of the tender offer to acquire common shares of LATAM in January 2020.

During 2019, the three major credit rating agencies reaffirmed our investment-grade ratings:

| Rating Agency | Current Rating | Outlook |
|-------------------|----------------|---------|
| Fitch | BBB- | Stable |
| Moody's | Baa3 | Stable |
| Standard & Poor's | BBB- | Stable |

Capital Returns to Shareholders. Since first implementing our quarterly dividend in 2013, we have annually increased the dividend per share and paid \$3.8 billion in total dividends, including \$980 million in 2019. Through dividends and share repurchases, we have returned \$15.3 billion to shareholders since 2013, while reducing outstanding shares by approximately 25% compared to the beginning of 2013. During 2019, we repurchased and retired 38 million shares at a cost of \$2.0 billion.

On February 6, 2020, the Board of Directors approved and we will pay a quarterly dividend of \$0.4025 per share to shareholders of record as of February 20, 2020.

Undrawn Lines of Credit

We have \$3.1 billion available in revolving lines of credit. These credit facilities include covenants customary for financing of this type. If we are not in compliance with these covenants, we may be required to repay amounts borrowed under the credit facilities or we may not be able to draw on them.

Covenants

We were in compliance with the covenants in our financing agreements at December 31, 2019.

Contractual Obligations

The following table summarizes our contractual obligations at December 31, 2019 that we expect will be paid in cash. The table does not include amounts that are contingent on events or other factors that are uncertain or unknown at this time, including legal contingencies, uncertain tax positions and amounts payable under collective bargaining arrangements, among others. In addition, the table does not include expected significant cash payments representing obligations that arise in the ordinary course of business that do not include contractual commitments.

The amounts presented are based on various estimates, including estimates regarding the timing of payments, prevailing interest rates, volumes purchased, the occurrence of certain events and other factors. Accordingly, the actual results may vary materially from the amounts presented in the table.

| (in millions) | Contractual Obligations by Year ⁽¹⁾ | | | | | | |
|---|--|----------|----------|----------|----------|------------|-----------|
| | 2020 | 2021 | 2022 | 2023 | 2024 | Thereafter | Total |
| Debt (see Note 7) | | | | | | | |
| Principal amount | \$ 2,060 | \$ 1,094 | \$ 1,708 | \$ 932 | \$ 1,508 | \$ 2,689 | \$ 9,991 |
| Interest payments | 307 | 295 | 246 | 185 | 154 | 635 | 1,822 |
| Finance lease obligations (see Note 8) | | | | | | | |
| Principal amount | 233 | 213 | 156 | 111 | 171 | 169 | 1,053 |
| Interest payments | 31 | 26 | 18 | 13 | 9 | 10 | 107 |
| Operating lease obligations (see Note 8) | 1,031 | 913 | 825 | 803 | 738 | 4,293 | 8,603 |
| Aircraft purchase commitments (see Note 11) | 2,980 | 3,740 | 3,390 | 1,640 | 500 | 1,440 | 13,690 |
| Contract carrier obligations (see Note 11) | 1,750 | 1,432 | 1,377 | 1,132 | 1,002 | 2,349 | 9,042 |
| Employee benefit obligations (see Note 10) | 134 | 133 | 119 | 110 | 102 | 4,650 | 5,248 |
| Other obligations | 2,993 | 919 | 1,137 | 807 | 596 | 5,904 | 12,356 |
| Total | \$ 11,519 | \$ 8,765 | \$ 8,976 | \$ 5,733 | \$ 4,780 | \$ 22,139 | \$ 61,912 |

⁽¹⁾ For additional information, see the Notes to the Consolidated Financial Statements referenced in the table above.

Debt, Principal Amount. Represents scheduled principal payments on debt.

Debt, Interest Payments. Represents estimated interest payments based on interest rates specified in our applicable debt agreements. Interest payments on variable interest rate debt were calculated using LIBOR at December 31, 2019.

Finance and Operating Lease Obligations. Refer to Note 8 of the Notes to the Consolidated Financial Statements for additional information regarding finance and operating leases.

Aircraft Purchase Commitments. Refer to the aircraft purchase commitments table in Item 2 for additional information about our future aircraft purchases.

Contract Carrier Obligations. Represents our estimated minimum fixed obligations under capacity purchase agreements with third-party regional carriers. The reported amounts are based on (1) the required minimum levels of flying by our contract carriers under the applicable agreements and (2) assumptions regarding the costs associated with such minimum levels of flying.

Employee Benefit Obligations. Represents primarily (1) projected future benefit payments from our unfunded postretirement and postemployment plans and (2) our estimated minimum required funding for our qualified defined benefit pension plans based on actuarially determined estimates. For additional information about our defined benefit pension plan obligations, see "Critical Accounting Policies and Estimates."

Other Obligations. Represents estimated purchase obligations under which we are required to make minimum payments for goods and services, including, but not limited to, aviation-related, maintenance, professional security, insurance, marketing, technology, sponsorships and other third-party services and products. This also includes obligations related to our investment in and planned strategic alliance with LATAM.

Critical Accounting Policies and Estimates

Our critical accounting policies and estimates are those that require significant judgments and estimates. Accordingly, the actual results may differ materially from these estimates. For a discussion of these and other accounting policies, see Note 1 of the Notes to the Consolidated Financial Statements.

Loyalty Program

Our SkyMiles loyalty program generates customer loyalty by rewarding customers with incentives to travel on Delta. This program allows customers to earn mileage credits ("miles") by flying on Delta, Delta Connection and other airlines that participate in the loyalty program. When traveling, customers earn redeemable miles based on the passenger's loyalty program status and ticket price. Customers can also earn miles through participating companies such as credit card companies, hotels, car rental agencies and ridesharing companies. To facilitate transactions with participating companies, we sell miles to non-airline businesses, customers and other airlines. Miles are redeemable by customers in future periods for air travel on Delta and other participating airlines, membership in our Sky Club and other program awards.

To reflect the miles earned, the loyalty program includes two types of transactions that are considered revenue arrangements with multiple performance obligations: (1) miles earned with travel and (2) miles sold to participating companies.

Passenger Ticket Sales Earning Miles. Passenger ticket sales earning miles under our loyalty program provide customers with (1) miles earned and (2) air transportation, which are considered performance obligations. We value each performance obligation on a standalone basis. To value the miles earned, we consider the quantitative value a passenger receives by redeeming miles for a ticket rather than paying cash, which is referred to as equivalent ticket value ("ETV"). Our estimate of ETV is adjusted for miles that are not likely to be redeemed ("breakage"). We use statistical models to estimate breakage based on historical redemption patterns. A change in assumptions as to the actual redemption activity for miles or the estimated fair value of miles expected to be redeemed could have a material impact on our revenue in the year in which the change occurs and in future years. We recognize breakage proportionally during the period in which the remaining miles are actually redeemed.

At December 31, 2019, the aggregate deferred revenue balance associated with the SkyMiles program was \$6.7 billion. A hypothetical 10% change in the number of outstanding miles estimated to be redeemed would result in an impact of approximately \$200 million on annual revenue recognized.

We defer revenue for the miles when earned and recognize loyalty travel awards in passenger revenue as the miles are redeemed and transportation is provided. We record the air transportation portion of the passenger ticket sales in air traffic liability and recognize passenger revenue when we provide transportation or if the ticket goes unused. A hypothetical 10% increase in our estimate of the ETV of a mile would decrease annual passenger revenue by approximately \$100 million, as a result of an increase in the amount of revenue deferred from the mileage component of passenger ticket sales.

Sale of Miles. Customers may earn miles based on their spending with participating companies such as credit card companies, hotels, car rental agencies and ridesharing companies with which we have marketing agreements to sell miles. Our contracts to sell miles under these marketing agreements have multiple performance obligations. Payments are typically due monthly based on the volume of miles sold during the period, and the terms of our marketing contracts are from one to eleven years. During the years ended December 31, 2019 and 2018, total cash sales from marketing agreements were \$4.2 billion and \$3.5 billion, respectively, which are allocated to travel and other performance obligations, as discussed below.

Our most significant contract to sell miles relates to our co-brand credit card relationship with American Express. Our agreements with American Express provide for joint marketing, grant certain benefits to Delta-American Express co-branded credit card holders ("cardholders") and American Express Membership Rewards program participants, and allow American Express to market its services or products using our customer database. Cardholders earn miles for making purchases using co-branded cards, and certain cardholders may also check their first bag for free, are granted discounted access to Delta Sky Club lounges and receive priority boarding and other benefits while traveling on Delta. Additionally, participants in the American Express Membership Rewards program may exchange their points for miles under the loyalty program. We sell miles at agreed-upon rates to American Express which are then provided to their customers under the co-brand credit card program and the Membership Rewards program.

We account for marketing agreements, including those with American Express, by allocating the consideration received to the individual products and services delivered. We allocate the value based on the relative selling prices of those products and services, which generally consist of award travel, priority boarding, baggage fee waivers, lounge access and the use of our brand. We determine our best estimate of the selling prices by using a discounted cash flow analysis using multiple inputs and assumptions, including: (1) the expected number of miles awarded and number of miles redeemed, (2) ETV for the award travel obligation adjusted for breakage, (3) published rates on our website for baggage fees, discounted access to Delta Sky Club lounges and other benefits while traveling on Delta, (4) brand value (using estimated royalties generated from the use of our brand) and (5) volume discounts provided to certain partners.

Effective January 1, 2019, we amended our co-brand agreement with American Express, and we also amended other agreements with American Express during the current year. The new agreements increase the value we receive and extend the terms to 2029. The products and services delivered are consistent with previous agreements, and we continue to allocate the consideration received based on the relative selling prices of those products and services.

We defer the amount for award travel obligation as part of loyalty program deferred revenue and recognize loyalty travel awards in passenger revenue as the miles are used for travel. Revenue allocated to services performed in conjunction with a passenger's flight, such as baggage fee waivers, is recognized as travel-related services in passenger revenue when the related service is performed. Revenue allocated to access Delta Sky Club lounges is recognized as miscellaneous in other revenue as access is provided. Revenue allocated to the remaining performance obligations, primarily brand value, is recorded as loyalty program in other revenue as miles are delivered.

Goodwill and Indefinite-Lived Intangible Assets

We apply a fair value-based impairment test to the carrying value of goodwill and indefinite-lived intangible assets on an annual basis (as of October 1) and, if certain events or circumstances indicate that an impairment loss may have been incurred, on an interim basis. We assess the value of our goodwill and indefinite-lived assets under either a qualitative or quantitative approach. Under a qualitative approach, we consider various market factors, including certain of the key assumptions listed below. We analyze these factors to determine if events and circumstances have affected the fair value of goodwill and indefinite-lived intangible assets. If we determine that it is more likely than not that the asset may be impaired, we use the quantitative approach to assess the asset's fair value and the amount of the impairment. Under a quantitative approach, we calculate the fair value of the asset incorporating the key assumptions listed below into our calculation.

When we evaluate goodwill for impairment using a quantitative approach, we estimate the fair value of the reporting unit by considering both comparable public company multiples (a market approach) and projected discounted future cash flows (an income approach). When we perform a quantitative impairment assessment of our indefinite-lived intangible assets, fair value is estimated based on (1) recent market transactions, where available, (2) the royalty method for the Delta tradename (which assumes hypothetical royalties generated from using our tradename) or (3) projected discounted future cash flows (an income approach).

Key Assumptions. The key assumptions in our impairment tests include: (1) forecasted revenues, expenses and cash flows, (2) terminal period revenue growth and cash flows, (3) an estimated weighted average cost of capital, (4) assumed discount rates depending on the asset and (5) a tax rate. These assumptions are consistent with those that hypothetical market participants would use. Because we are required to make estimates and assumptions when evaluating goodwill and indefinite-lived intangible assets for impairment, actual transaction amounts may differ materially from these estimates. In addition, when performing a qualitative valuation, we consider the amount by which the intangible assets' fair values exceeded their respective carrying values in the most recent fair value measurements calculated using a quantitative approach.

Changes in certain events and circumstances could result in impairment or a change from indefinite-lived to definite-lived. Factors which could cause impairment include, but are not limited to, (1) negative trends in our market capitalization, (2) reduced profitability resulting from lower passenger mile yields or higher input costs (primarily related to fuel and employees), (3) lower passenger demand as a result of weakened U.S. and global economies, (4) interruption to our operations due to a prolonged employee strike, terrorist attack or other reasons, (5) changes to the regulatory environment (e.g., diminished slot access or additional Open Skies agreements), (6) competitive changes by other airlines and (7) strategic changes to our operations leading to diminished utilization of the intangible assets.

We assessed each of the above assumptions in our most recent impairment analyses. The combination of our most recently completed annual results and our projected revenues, expenses and cash flows more than offset any negative events and circumstances.

Goodwill. Our goodwill balance, which is related to the airline segment, was \$9.8 billion at December 31, 2019. Based upon our quantitative assessment of all relevant factors, including applicable factors noted in "*Key Assumptions*" above, we determined that the fair value of goodwill significantly exceeded the carrying value and, therefore, there was no indication that goodwill was impaired.

Identifiable Intangible Assets. Our identifiable intangible assets, which are related to the airline segment, had a net carrying amount of \$5.2 billion at December 31, 2019, of which \$5.1 billion related to indefinite-lived intangible assets. Indefinite-lived assets are not amortized and consist primarily of routes, slots, the Delta tradename and assets related to SkyTeam and collaborative arrangements. Definite-lived assets consist primarily of marketing and maintenance service agreements.

In 2019, we performed quantitative assessments of our indefinite-lived intangible assets, including applicable factors noted in "*Key Assumptions*" above, and determined that there was no indication that the assets were impaired as the fair value of each asset exceeded its carrying value by at least 15%.

Long-Lived Assets

Our flight equipment, which consists of aircraft and associated engines and parts, and other long-lived assets have a recorded value of \$31.3 billion at December 31, 2019. This value is based on various factors, including the assets' estimated useful lives and salvage values. We review flight equipment and other long-lived assets used in operations for impairment losses when events and circumstances indicate the assets may be impaired. Factors which could be indicators of impairment include, but are not limited to, (1) a decision to permanently remove flight equipment or other long-lived assets from operations, (2) significant changes in the estimated useful life, (3) significant changes in projected cash flows, (4) permanent and significant declines in fleet fair values and (5) changes to the regulatory environment. For long-lived assets held for sale, we discontinue depreciation and record impairment losses when the carrying amount of these assets is greater than the fair value less the cost to sell.

To determine whether impairments exist for aircraft used in operations, we group assets at the fleet-type level or at the contract level for aircraft operated by regional carriers (i.e., the lowest level for which there are identifiable cash flows) and then estimate future cash flows based on projections of capacity, passenger mile yield, fuel costs, labor costs and other relevant factors. If an asset group is impaired, the impairment loss recognized is the amount by which the asset group's carrying amount exceeds its estimated fair value. We estimate aircraft fair values using published sources, appraisals and bids received from third parties, as available.

As part of our ongoing fleet transformation, during 2019 we committed to accelerating the retirement of our MD-90 fleet. This fleet will now be retired by the end of 2022, which is approximately two years earlier than previously planned. We evaluated the MD-90 fleet and determined that the fleet was not impaired as the future cash flows from operation of the fleet through the updated retirement date significantly exceeded the carrying value. However, the decision to retire the fleet by 2022, including the permanent retirement of 35 aircraft during 2019, resulted in accelerated depreciation of \$79 million during 2019, which is recorded in depreciation and amortization in our income statement.

Defined Benefit Pension Plans

We sponsor defined benefit pension plans for eligible employees and retirees. These plans are closed to new entrants and frozen for future benefit accruals. As of December 31, 2019, the unfunded benefit obligation for these plans recorded on our balance sheet was \$5.4 billion. We had no minimum funding requirements in 2019. However, during 2019, we voluntarily contributed \$1 billion to these plans. We have no minimum funding requirements in 2020, but we plan to voluntarily contribute approximately \$500 million to these plans. The most critical assumptions impacting our defined benefit pension plan obligations and net periodic benefit cost are the discount rate, the expected long-term rate of return on plan assets and life expectancy.

Weighted Average Discount Rate. We determine our weighted average discount rate on our measurement date primarily by reference to annualized rates earned on high-quality fixed income investments and yield-to-maturity analysis specific to our estimated future benefit payments. We used a weighted average discount rate to value the obligations of 3.40% and 4.33% at December 31, 2019 and 2018, respectively. Our weighted average discount rate for net periodic benefit cost in each of the past three years has varied from the rate selected on our measurement date, ranging from 3.69% to 4.33%.

Expected Long-Term Rate of Return. Our expected long-term rate of return on plan assets is based primarily on plan-specific investment studies using historical market return and volatility data. Modest excess return expectations versus some public market indices are incorporated into the return projections based on the actively managed structure of the investment programs and their records of achieving such returns historically. We also expect to receive a premium for investing in less liquid private markets. We review our rate of return on plan assets assumptions annually. Our annual investment performance for one particular year does not, by itself, significantly influence our evaluation. The investment strategy for our defined benefit pension plan assets is to earn a long-term return that meets or exceeds our annualized return target while taking an acceptable level of risk and maintaining sufficient liquidity to pay current benefits and other cash obligations of the plan. This is achieved by investing in a globally diversified mix of public and private equity, fixed income, real assets, hedge funds and other assets and instruments. Our weighted average expected long-term rate of return on assets for net periodic benefit cost for the year ended December 31, 2019 was 8.97%.

The impact of a 0.50% change in these assumptions is shown in the table below:

| Change in Assumption | Effect on 2020 Pension Benefit Cost | Effect on Accrued Pension Liability at December 31, 2019 |
|---|--|--|
| 0.50% decrease in weighted average discount rate | \$ (13) million | \$ 1.3 billion |
| 0.50% increase in weighted average discount rate | \$ 9 million | \$ (1.2) billion |
| 0.50% decrease in expected long-term rate of return on assets | \$ 78 million | \$ — |
| 0.50% increase in expected long-term rate of return on assets | \$ (78) million | \$ — |

Life Expectancy. Changes in life expectancy may significantly impact our benefit obligations and future net periodic benefit cost. We use the Society of Actuaries ("SOA") published mortality data and other publicly available information to develop our best estimate of life expectancy. The SOA publishes updated mortality tables for U.S. plans and updated improvement scales. Each year we consider updates by the SOA in setting our mortality assumptions for purposes of measuring pension and other postretirement and postemployment benefit obligations.

Funding. Our funding obligations for qualified defined benefit plans are governed by the Employee Retirement Income Security Act. The Pension Protection Act of 2006 allows commercial airlines to elect alternative funding rules ("Alternative Funding Rules") for defined benefit plans that are frozen. We elected the Alternative Funding Rules under which the unfunded liability for a frozen defined benefit plan may be amortized over a fixed 17-year period and is calculated using an 8.85% discount rate until the 17-year period expires for all frozen defined benefit plans by the end of 2024.

While the Pension Protection Act makes our funding obligations for these plans more predictable, factors outside our control continue to have an impact on the funding requirements. Estimates of future funding requirements are based on various assumptions and can vary materially from actual funding requirements. Assumptions include, among other things, the actual and projected market performance of assets, statutory requirements and demographic data for participants. For additional information, see Note 10 of the Notes to the Consolidated Financial Statements.

Investments Valued at Net Asset Value ("NAV") Per Share. On an annual basis we assess the potential for adjustments to the fair value of all investments. Certain of our investments valued using NAV as a practical expedient have a lag in the availability of data. This primarily applies to private equity, private equity-related strategies and real assets. We solicit valuation updates from the investment fund managers and use their information and corroborating data from public markets to determine any needed fair value adjustments.

Recent Accounting Standards

Standards Effective in Future Years

Credit Losses. In 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-13, "Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." Under this ASU an entity is required to utilize an "expected credit loss model" on certain financial instruments, including trade and financing receivables. This model requires consideration of a broader range of reasonable and supportable information and requires an entity to estimate expected credit losses over the lifetime of the asset. This standard is effective for interim and annual reporting periods beginning after December 15, 2019. We do not expect adoption of this standard to have a material impact on our consolidated financial statements. We will adopt the standard effective January 1, 2020.

Recently Adopted Standards

Comprehensive Income. In February 2018, the FASB issued ASU No. 2018-02, "Income Statement—Reporting Comprehensive Income (Topic 220)." This standard provides an option to reclassify stranded tax effects within accumulated other comprehensive income/(loss) ("AOCI") to retained earnings due to the U.S. federal corporate income tax rate change in the Tax Cuts and Jobs Act of 2017. We adopted this standard effective January 1, 2019 with the election not to reclassify \$1.2 billion of stranded tax effects, primarily related to our pension plans, from AOCI to retained earnings.

Supplemental Information

We sometimes use information ("non-GAAP financial measures") that is derived from the Consolidated Financial Statements, but that is not presented in accordance with GAAP. Under the U.S. Securities and Exchange Commission rules, non-GAAP financial measures may be considered in addition to results prepared in accordance with GAAP, but should not be considered a substitute for or superior to GAAP results. Reconciliations below may not calculate exactly due to rounding.

TRASM, adjusted

The following table shows a reconciliation of TRASM (a GAAP measure) to TRASM, adjusted (a non-GAAP financial measure). We adjust TRASM for the following items to determine TRASM, adjusted for the reasons described below

- *Third-party refinery sales.* We adjust TRASM for refinery sales to third parties because these revenues are not related to our airline segment. TRASM, adjusted therefore provides a more meaningful comparison of revenue from our airline operations to the rest of the airline industry.
- *DGS sale adjustment.* Because we sold DGS in December 2018, we have excluded the impact of DGS from 2018 results for comparability.

| | Year Ended December 31, | |
|----------------------------|-------------------------|---------|
| | 2019 | 2018 |
| TRASM (cents) | 17.07 ¢ | 16.87 ¢ |
| Adjusted for: | | |
| Third-party refinery sales | (0.04) | (0.21) |
| DGS sale adjustment | — | (0.09) |
| TRASM, adjusted | 17.03 ¢ | 16.57 ¢ |

CASM-Ex

The following table shows a reconciliation of CASM (a GAAP measure) to CASM-Ex (a non-GAAP financial measure). We adjust CASM for the following items to determine CASM-Ex for the reasons described below:

- *Aircraft fuel and related taxes.* The volatility in fuel prices impacts the comparability of year-over-year financial performance. The adjustment for aircraft fuel and related taxes allows investors to understand and analyze our non-fuel costs and year-over-year financial performance.
- *Ancillary businesses and refinery.* We adjust for expenses related to aircraft maintenance we provide to third parties, our vacation wholesale operations, our private jet operations as well as refinery cost of sales to third parties. 2018 results also include staffing services performed by DGS. Because these businesses are not related to the generation of a seat mile, we adjust for the costs related to these areas to provide a more meaningful comparison of the costs of our airline operations to the rest of the airline industry.
- *Profit sharing.* We adjust for profit sharing because this adjustment allows investors to better understand and analyze our recurring cost performance and provides a more meaningful comparison of our core operating costs to the airline industry.

| | Year Ended December 31, | |
|-----------------------------------|-------------------------|---------|
| | 2019 | 2018 |
| CASM (cents) | 14.67 ¢ | 14.87 ¢ |
| Adjusted for: | | |
| Aircraft fuel and related taxes | (3.10) | (3.43) |
| Ancillary businesses and refinery | (0.45) | (0.64) |
| Profit sharing | (0.60) | (0.49) |
| CASM-Ex | 10.52 ¢ | 10.31 ¢ |

Free Cash Flow

We present free cash flow because management believes this metric is helpful to investors to evaluate the company's ability to generate cash that is available for use for debt service or general corporate initiatives. Adjustments include:

- *Net redemptions of short-term investments.* Net redemptions of short-term investments represent the net purchase and sale activity of investments and marketable securities in the period, including gains and losses. We adjust for this activity to provide investors a better understanding of the company's free cash flow generated by our operations.
- *Strategic investments.* Cash flows related to our investment in Hanjin-KAL, the largest shareholder of Korean Air, are included in our GAAP investing activities. We adjust free cash flow for this activity to provide investors a better understanding of the company's free cash flow that is core to our operational performance.
- *Net cash flows related to certain airport construction projects and other.* Cash flows related to certain airport construction projects are included in our GAAP operating activities and capital expenditures. We have adjusted for these items, which were primarily funded by cash restricted for airport construction, to provide investors a better understanding of the company's free cash flow and capital expenditures that are core to our operational performance in the periods shown.

| (in millions) | Year Ended December 31, | |
|---|-------------------------|----------|
| | 2019 | 2018 |
| Net cash provided by operating activities | \$ 8,425 | \$ 7,014 |
| Net cash used in investing activities | (4,563) | (4,393) |
| Adjustments: | | |
| Net redemptions of short-term investments | (206) | (621) |
| Strategic investments | 170 | — |
| Net cash flows related to certain airport construction projects and other | 338 | 362 |
| Free cash flow | \$ 4,164 | \$ 2,362 |

Glossary of Defined Terms

ASM - Available Seat Mile. A measure of capacity. ASMs equal the total number of seats available for transporting passengers during a reporting period multiplied by the total number of miles flown during that period.

CASM - (Operating) Cost per Available Seat Mile. The amount of operating cost incurred per ASM during a reporting period. CASM is also referred to as "unit cost."

CASM-Ex - The amount of operating cost incurred per ASM during a reporting period, adjusted for aircraft fuel and related taxes, ancillary businesses and refinery and profit sharing expenses.

Free Cash Flow - Represents the excess cash generated from operations after satisfying the investment needed to sustain and grow our business. The remaining funds are available to return to shareholders and other providers of capital.

Passenger Load Factor - A measure of utilized available seating capacity calculated by dividing RPMs by ASMs for a reporting period.

Passenger Mile Yield or Yield - The amount of passenger revenue earned per RPM during a reporting period.

PRASM - Passenger Revenue per ASM. The amount of passenger revenue earned per ASM during a reporting period. PRASM is also referred to as "unit revenue."

RPM - Revenue Passenger Mile. One revenue-paying passenger transported one mile. RPMs equal the number of revenue passengers during a reporting period multiplied by the number of miles flown by those passengers during that period. RPMs are also referred to as "traffic."

TRASM - Total Revenue per ASM. The amount of total revenue earned per ASM during a reporting period.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We have market risk exposure related to fuel prices, interest rates and foreign currency exchange rates. Market risk is the potential negative impact of adverse changes in these prices or rates on our Consolidated Financial Statements. In an effort to manage our exposure to these risks, we may enter into derivative contracts and may adjust our derivative portfolio as market conditions change. We expect adjustments to the fair value of financial instruments to result in ongoing volatility in earnings and stockholders' equity.

The following sensitivity analyses do not consider the effects of a change in demand for air travel, the economy as a whole or actions we may take to seek to mitigate our exposure to a particular risk. For these and other reasons, the actual results of changes in these prices or rates may differ materially from the following hypothetical results.

Fuel Price Risk

Changes in fuel prices materially impact our results of operations. A one cent increase in the cost of jet fuel would result in approximately \$40 million of additional annual fuel expense. Our derivative contracts to hedge the financial risk from changing fuel prices are primarily related to Monroe's inventory.

Interest Rate Risk

Our exposure to market risk from adverse changes in interest rates is primarily associated with our debt obligations. Market risk associated with our fixed and variable rate debt relates to the potential reduction in fair value and negative impact to future earnings, respectively, from an increase in interest rates.

At December 31, 2019, we had \$7.6 billion of fixed-rate debt and \$2.9 billion of variable-rate debt. An increase of 100 basis points in average annual interest rates would have decreased the estimated fair value of our fixed-rate debt by \$300 million at December 31, 2019 and would have increased the annual interest expense on our variable-rate debt by \$29 million.

The U.K. Financial Conduct Authority announced in July 2017 that it intends to no longer compel banks to submit rates for the calculation of the London interbank offered rate ("LIBOR") after 2021. To mitigate the possible impact, various regulators have proposed alternative reference rates. The effect of any discontinuation or replacement of LIBOR cannot be predicted at this time, but we believe our risk would be limited to variable rate debt and variable rate finance leases which utilize this rate. At December 31, 2019 we have approximately \$2.1 billion of variable rate finance leases and variable rate debt maturing after 2021, that include provisions to update the applicable reference rate which are not expected to be materially different from LIBOR.

Foreign Currency Exchange Risk

We are subject to foreign currency exchange rate risk because we have revenue, expense and equity investments denominated in foreign currencies. To manage exchange rate risk, we execute both our international revenue and expense transactions in the same foreign currency to the extent practicable. From time to time, we may also enter into foreign currency option and forward contracts.

At December 31, 2019, we had open a U.S. dollar-Euro cross currency swap contract totaling a \$9 million asset position. We estimate that a 10% depreciation or appreciation in the price of the Euro in relation to the U.S. dollar would have changed the projected cash settlement value of our open hedge contract by \$45 million for the year ending December 31, 2019. At December 31, 2019, we had open a U.S. dollar-South Korean won cross currency swap contract totaling a \$3 million liability position. We estimate that a 10% depreciation or appreciation in the price of the South Korean won in relation to the U.S. dollar would have changed the projected cash settlement value of our open hedge contract by \$16 million for the year ending December 31, 2019.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Delta Air Lines, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Delta Air Lines, Inc. (the Company) as of December 31, 2019 and 2018, and the related consolidated statements of operations, comprehensive income, cash flows, and stockholders' equity for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 12, 2020 expressed an unqualified opinion thereon.

Adoption of New Accounting Standards

As discussed in Note 8 to the consolidated financial statements, the Company changed its method of accounting for leases in 2018.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatements of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Loyalty Program - Mileage Breakage

Description of the Matter

At December 31, 2019 the Company's aggregate current and noncurrent loyalty program deferred revenue balance was \$6.7 billion. For the year ended December 31, 2019, the Company recognized revenue of \$2.9 billion classified as travel miles redeemed within passenger revenue and revenue of \$2.0 billion classified as loyalty program revenue within other revenue in the consolidated statement of operations. As disclosed in Note 2 to the consolidated financial statements, the Company defers revenue for mileage credits earned and recognizes loyalty travel awards in passenger revenue as the miles are redeemed and services are provided. In determining the value of mileage credits earned, the Company applies an estimate of mileage credits earned that are not expected to be redeemed ("breakage"). The Company recognizes breakage proportionally during the period in which the remaining mileage credits are actually redeemed. Under the Company's loyalty program, mileage credits do not expire. Therefore, the Company uses statistical models to estimate breakage based on historical redemption patterns.

Auditing the Company's accounting for its loyalty program required significant estimation in determining the breakage estimate for mileage credits. In particular, there is complexity and subjectivity in estimating breakage based on expectations of future redemption patterns due to the absence of historical expirations as the Company's mileage credits do not expire.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's accounting for its loyalty program, including controls over management's review of the estimation of the mileage breakage and the completeness and accuracy of the data underlying the breakage estimate.

To test the estimate of breakage of mileage credits, our audit procedures included, among others, involving an actuarial specialist to assist in assessing the method used to develop the breakage estimate and independently developing a range of breakage estimates and comparing them to the Company's estimates. Additionally, we tested the completeness and accuracy of the underlying mileage data used in the Company's statistical models and performed sensitivity analyses to evaluate the changes to the Company's deferred revenue that would result from changes in the breakage estimate.

Loyalty Program - American Express Contract Brand Value

Description of the Matter

At December 31, 2019 the Company's aggregate current and noncurrent loyalty program deferred revenue balance was \$6.7 billion. For the year ended December 31, 2019, the Company recognized revenue of \$2.9 billion classified as loyalty travel awards within passenger revenue and revenue of \$2.0 billion classified as loyalty program revenue within other revenue in the consolidated statement of operations. As disclosed in Note 2 to the consolidated financial statements, effective January 1, 2019, the Company amended its co-brand agreement with American Express. The Company allocates the consideration received from American Express based on its best estimate of the relative selling price of the products and services delivered, including the use of the Company's brand.

Auditing the Company's accounting for its co-brand agreement with American Express was complex and highly judgmental due to the significant estimation required in determining the selling price of the Company's brand deliverable primarily resulting from the absence of an observable standalone selling price. A change in the estimated selling price of the brand deliverable could have a material impact on the deferred revenue balance and the timing of revenue recognition.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's accounting for its co-brand agreement with American Express, including controls specific to the estimated selling price of the Company's brand deliverable and the completeness and accuracy of the data underlying the brand deliverable estimate.

To test the estimated selling price of the brand deliverable, our audit procedures included, among others, involving a valuation specialist to assist in testing the method used to develop the selling price of the Company's brand deliverable, and assessing the reasonableness of the inputs used to develop the estimate, which included corroborating those inputs to publicly available data. Additionally, we performed sensitivity analyses to evaluate the changes to the Company's deferred revenue that would result from changes in the estimated standalone selling price of the Company's brand deliverable.

Employee Benefit Plans

Description of the Matter

At December 31, 2019 the fair value of the Company's benefit plan investments totaled \$16.3 billion, of which \$9.9 billion do not have a readily determinable fair value and are measured at net asset value per share ("NAV assets") as a practical expedient. Management determines the fair value of NAV assets by applying the methodologies described in Note 10 to the consolidated financial statements. The Company's expected long-term rate of return on assets for net periodic benefit for the year ended December 31, 2019 was 8.97%. The expected return on plan assets provided net periodic benefit of \$1.2 billion for the year ended December 31, 2019. As disclosed in Note 10 to the consolidated financial statements, the expected long-term rate of return on plan assets is reviewed annually and is based primarily on plan-specific investment studies using historical market return and volatility data.

Auditing the fair value of the Company's NAV assets required significant judgment in estimating the fair value of the NAV assets, primarily resulting from the lag in the availability of data provided by the investment fund managers and the use of corroborating data from public markets to estimate fair value. Auditing the expected long-term rate of return on plan assets required significant judgment due to the subjective nature of certain assumptions. In particular, the Company incorporated excess return expectations compared to historical market return and volatility data based on the Company's investment strategy. Net periodic benefit is sensitive to the expected long-term rate of return on plan assets, which is affected by expectations about future market and economic conditions.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's accounting for its employee benefit plans, including controls over management's assessment of the significant inputs and estimates included in the fair value measurements of NAV assets and management's review of the significant assumptions and the inputs used in estimating the expected long-term rate of return on plan assets.

To test the fair value of plan assets measured at NAV, our audit procedures included, among others, evaluating the valuation methodologies used by the Company and comparing significant inputs and underlying data used in the Company's valuations to information available from third-party sources and market data. Additionally, we performed sensitivity analyses to evaluate the changes to the Company's net periodic benefit that would result from changes in the fair value measurement, and compared the Company's asset performance results to applicable third-party benchmarks and assessed management's historical accuracy of estimating fair value by performing retrospective review procedures comparing the Company's estimates of fair value as of the prior year to the final fair value NAV in the investment's audited financial statements made available during the current year.

To test the expected long-term rate of return on plan assets, our audit procedures included, among others, evaluating the methodology used, testing the significant assumptions used in the determination of the expected return and testing the underlying data used by the Company. We involved an actuarial specialist to assist in evaluating the appropriateness of the Company's estimate, including independently calculating a range of expected long-term rates of return based on the Company's current investment portfolio and strategy, and assessed whether management's assumption was consistent with a range of returns for a portfolio of comparative investments. Additionally, we tested the completeness and accuracy of the data used by management and performing sensitivity analyses to evaluate the changes to the Company's net periodic benefit that would result from changes in the expected long-term rate of return on plan assets.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2006.

Atlanta, Georgia
February 12, 2020

DELTA AIR LINES, INC.
Consolidated Balance Sheets

| (in millions, except share data) | December 31, | |
|--|--------------|-----------|
| | 2019 | 2018 |
| ASSETS | | |
| Current Assets: | | |
| Cash and cash equivalents | \$ 2,882 | \$ 1,565 |
| Accounts receivable, net of an allowance for uncollectible accounts of \$13 and \$12 at December 31, 2019 and 2018, respectively | 2,854 | 2,314 |
| Fuel inventory | 730 | 592 |
| Expendable parts and supplies inventories, net of an allowance for obsolescence of \$82 and \$102 at December 31, 2019 and 2018, respectively | 521 | 463 |
| Prepaid expenses and other | 1,262 | 1,406 |
| Total current assets | 8,249 | 6,340 |
| Noncurrent Assets: | | |
| Property and equipment, net of accumulated depreciation and amortization of \$17,027 and \$15,823 at December 31, 2019 and 2018, respectively | 31,310 | 28,335 |
| Operating lease right-of-use assets | 5,627 | 5,994 |
| Goodwill | 9,781 | 9,781 |
| Identifiable intangibles, net of accumulated amortization of \$873 and \$862 at December 31, 2019 and 2018, respectively | 5,163 | 4,830 |
| Cash restricted for airport construction | 636 | 1,136 |
| Other noncurrent assets | 3,766 | 3,850 |
| Total noncurrent assets | 56,283 | 53,926 |
| Total assets | \$ 64,532 | \$ 60,266 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current Liabilities: | | |
| Current maturities of debt and finance leases | \$ 2,287 | \$ 1,518 |
| Current maturities of operating leases | 801 | 955 |
| Air traffic liability | 5,116 | 4,661 |
| Accounts payable | 3,266 | 2,976 |
| Accrued salaries and related benefits | 3,701 | 3,287 |
| Loyalty program deferred revenue | 3,219 | 2,989 |
| Fuel card obligation | 736 | 1,075 |
| Other accrued liabilities | 1,078 | 1,117 |
| Total current liabilities | 20,204 | 18,578 |
| Noncurrent Liabilities: | | |
| Debt and finance leases | 8,873 | 8,253 |
| Pension, postretirement and related benefits | 8,452 | 9,163 |
| Loyalty program deferred revenue | 3,509 | 3,652 |
| Noncurrent operating leases | 5,294 | 5,801 |
| Deferred income taxes, net | 1,456 | 163 |
| Other noncurrent liabilities | 1,386 | 969 |
| Total noncurrent liabilities | 28,970 | 28,001 |
| Commitments and Contingencies | | |
| Stockholders' Equity: | | |
| Common stock at \$0.0001 par value; 1,500,000,000 shares authorized, 651,731,443 and 688,136,306 shares issued at December 31, 2019 and 2018, respectively | — | — |
| Additional paid-in capital | 11,129 | 11,671 |
| Retained earnings | 12,454 | 10,039 |
| Accumulated other comprehensive loss | (7,989) | (7,825) |
| Treasury stock, at cost, 8,959,730 and 8,191,831 shares at December 31, 2019 and 2018, respectively | (236) | (198) |
| Total stockholders' equity | 15,358 | 13,687 |
| Total liabilities and stockholders' equity | \$ 64,532 | \$ 60,266 |

The accompanying notes are an integral part of these Consolidated Financial Statements.

DELTA AIR LINES, INC.
Consolidated Statements of Operations

| (in millions, except per share data) | Year Ended December 31, | | |
|--|-------------------------|-----------|-----------|
| | 2019 | 2018 | 2017 |
| Operating Revenue: | | | |
| Passenger | \$ 42,277 | \$ 39,755 | \$ 36,947 |
| Cargo | 753 | 865 | 744 |
| Other | 3,977 | 3,818 | 3,447 |
| Total operating revenue | 47,007 | 44,438 | 41,138 |
| Operating Expense: | | | |
| Salaries and related costs | 11,225 | 10,743 | 10,058 |
| Aircraft fuel and related taxes | 8,519 | 9,020 | 6,756 |
| Regional carriers expense, excluding fuel | 3,584 | 3,438 | 3,466 |
| Contracted services | 2,641 | 2,175 | 2,108 |
| Depreciation and amortization | 2,581 | 2,329 | 2,222 |
| Passenger commissions and other selling expenses | 1,993 | 1,941 | 1,827 |
| Landing fees and other rents | 1,762 | 1,662 | 1,501 |
| Aircraft maintenance materials and outside repairs | 1,751 | 1,575 | 1,591 |
| Profit sharing | 1,643 | 1,301 | 1,065 |
| Passenger service | 1,251 | 1,178 | 1,123 |
| Ancillary businesses and refinery | 1,245 | 1,695 | 1,495 |
| Aircraft rent | 423 | 394 | 351 |
| Other | 1,771 | 1,723 | 1,609 |
| Total operating expense | 40,389 | 39,174 | 35,172 |
| Operating Income | 6,618 | 5,264 | 5,966 |
| Non-Operating Expense: | | | |
| Interest expense, net | (301) | (311) | (396) |
| Gain/(loss) on investments, net | 119 | 38 | — |
| Miscellaneous, net | (238) | 160 | (70) |
| Total non-operating expense, net | (420) | (113) | (466) |
| Income Before Income Taxes | 6,198 | 5,151 | 5,500 |
| Income Tax Provision | (1,431) | (1,216) | (2,295) |
| Net Income | \$ 4,767 | \$ 3,935 | \$ 3,205 |
| Basic Earnings Per Share | \$ 7.32 | \$ 5.69 | \$ 4.45 |
| Diluted Earnings Per Share | \$ 7.30 | \$ 5.67 | \$ 4.43 |
| Cash Dividends Declared Per Share | \$ 1.51 | \$ 1.31 | \$ 1.02 |

The accompanying notes are an integral part of these Consolidated Financial Statements.

DELTA AIR LINES, INC.
Consolidated Statements of Comprehensive Income

| (in millions) | Year Ended December 31, | | |
|--|-------------------------|-----------------|-----------------|
| | 2019 | 2018 | 2017 |
| Net Income | \$ 4,767 | \$ 3,935 | \$ 3,205 |
| Other comprehensive (loss) income: | | | |
| Net change in derivative contracts | 6 | 15 | (29) |
| Net change in pension and other benefits | (170) | (113) | (98) |
| Net change in investments | — | — | 142 |
| Total Other Comprehensive (Loss) Income | (164) | (98) | 15 |
| Comprehensive Income | \$ 4,603 | \$ 3,837 | \$ 3,220 |

The accompanying notes are an integral part of these Consolidated Financial Statements.

DELTA AIR LINES, INC.
Consolidated Statements of Cash Flows

| (in millions) | Year Ended December 31, | | |
|--|-------------------------|-----------------|-----------------|
| | 2019 | 2018 | 2017 |
| Cash Flows From Operating Activities: | | | |
| Net income | \$ 4,767 | \$ 3,935 | \$ 3,205 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | |
| Depreciation and amortization | 2,581 | 2,329 | 2,222 |
| Deferred income taxes | 1,473 | 1,364 | 2,242 |
| Pension, postretirement and postemployment payments greater than expense | (922) | (790) | (3,302) |
| Changes in certain assets and liabilities: | | | |
| Receivables | (775) | 108 | (428) |
| Fuel inventory | (139) | 324 | (397) |
| Prepaid expenses and other current assets | 94 | (440) | (57) |
| Air traffic liability | 454 | 297 | 284 |
| Loyalty program deferred revenue | 87 | 319 | 399 |
| Profit sharing | 354 | 233 | (51) |
| Accounts payable and accrued liabilities | 144 | (418) | 955 |
| Other, net | 307 | (247) | (49) |
| Net cash provided by operating activities | 8,425 | 7,014 | 5,023 |
| Cash Flows From Investing Activities: | | | |
| Property and equipment additions: | | | |
| Flight equipment, including advance payments | (3,344) | (3,704) | (2,704) |
| Ground property and equipment, including technology | (1,592) | (1,464) | (1,187) |
| Purchase of equity investments | (170) | — | (1,245) |
| Sale of equity investments | 279 | 28 | — |
| Purchase of short-term investments | — | (145) | (925) |
| Redemption of short-term investments | 206 | 766 | 584 |
| Other, net | 58 | 126 | 211 |
| Net cash used in investing activities | (4,563) | (4,393) | (5,266) |
| Cash Flows From Financing Activities: | | | |
| Payments on debt and finance lease obligations | (3,320) | (3,052) | (1,258) |
| Repurchase of common stock | (2,027) | (1,575) | (1,677) |
| Cash dividends | (980) | (909) | (731) |
| Fuel card obligation | (339) | 7 | 636 |
| Proceeds from short-term obligations | 1,750 | — | — |
| Proceeds from long-term obligations | 2,057 | 3,745 | 2,454 |
| Other, net | (21) | 58 | (154) |
| Net cash used in financing activities | (2,880) | (1,726) | (730) |
| Net Increase (Decrease) in Cash, Cash Equivalents and Restricted Cash | 982 | 895 | (973) |
| Cash, cash equivalents and restricted cash at beginning of period | 2,748 | 1,853 | 2,826 |
| Cash, cash equivalents and restricted cash at end of period | <u>\$ 3,730</u> | <u>\$ 2,748</u> | <u>\$ 1,853</u> |
| Supplemental Disclosure of Cash Paid for Interest | \$ 481 | \$ 376 | \$ 390 |
| Non-Cash Transactions: | | | |
| Treasury stock contributed to our qualified defined benefit pension plans | \$ — | \$ — | \$ 350 |
| Right-of-use assets acquired under operating leases | 464 | 1,041 | — |
| Flight and ground equipment acquired under finance leases | 650 | 93 | 261 |
| Operating leases converted to finance leases | 190 | 7 | — |
| The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the Consolidated Balance Sheets to the total of the same such amounts shown above: | | | |
| (in millions) | Year Ended December 31, | | |
| | 2019 | 2018 | 2017 |
| Current assets: | | | |
| Cash and cash equivalents | \$ 2,882 | \$ 1,565 | \$ 1,814 |
| Restricted cash included in prepaid expenses and other | 212 | 47 | 39 |
| Noncurrent assets: | | | |
| Cash restricted for airport construction | 636 | 1,136 | — |
| Total cash, cash equivalents and restricted cash | <u>\$ 3,730</u> | <u>\$ 2,748</u> | <u>\$ 1,853</u> |

The accompanying notes are an integral part of these Consolidated Financial Statements.

DELTA AIR LINES, INC.
Consolidated Statements of Stockholders' Equity

| (in millions, except per share data) | Common Stock | | Additional Paid-In Capital | Retained Earnings | Accumulated Other Comprehensive Loss | Treasury Stock | | Total |
|--|--------------|--------|-------------------------------|----------------------|--|----------------|----------|-----------|
| | Shares | Amount | | | | Shares | Amount | |
| Balance at January 1, 2017 | 745 | \$ — | \$ 12,294 | \$ 6,895 | \$ (7,636) | 14 | \$ (274) | \$ 11,279 |
| Net income | — | — | — | 3,205 | — | — | — | 3,205 |
| Dividends declared | — | — | — | (731) | — | — | — | (731) |
| Other comprehensive income | — | — | — | — | 15 | — | — | 15 |
| Shares of common stock issued and compensation expense associated with equity awards (Treasury shares withheld for payment of taxes, \$48.31 ⁽¹⁾ per share) | 1 | — | 107 | — | — | 1 | (39) | 68 |
| Stock options exercised | 2 | — | 28 | — | — | — | — | 28 |
| Treasury stock, net, contributed to our qualified defined benefit pension plans | — | — | 188 | — | — | (8) | 155 | 343 |
| Stock purchased and retired | (33) | — | (564) | (1,113) | — | — | — | (1,677) |
| Balance at December 31, 2017 | 715 | — | 12,053 | 8,256 | (7,621) | 7 | (158) | 12,530 |
| Net income | — | — | — | 3,935 | — | — | — | 3,935 |
| Change in accounting principle and other | — | — | — | (154) | (106) | — | — | (260) |
| Dividends declared | — | — | — | (909) | — | — | — | (909) |
| Other comprehensive loss | — | — | — | — | (98) | — | — | (98) |
| Shares of common stock issued and compensation expense associated with equity awards (Treasury shares withheld for payment of taxes, \$54.90 ⁽¹⁾ per share) | 1 | — | 91 | — | — | 1 | (40) | 51 |
| Stock options exercised | 1 | — | 13 | — | — | — | — | 13 |
| Stock purchased and retired | (29) | — | (486) | (1,089) | — | — | — | (1,575) |
| Balance at December 31, 2018 | 688 | — | 11,671 | 10,039 | (7,825) | 8 | (198) | 13,687 |
| Net income | — | — | — | 4,767 | — | — | — | 4,767 |
| Dividends declared | — | — | — | (981) | — | — | — | (981) |
| Other comprehensive loss | — | — | — | — | (164) | — | — | (164) |
| Shares of common stock issued and compensation expense associated with equity awards (Treasury shares withheld for payment of taxes, \$50.20 ⁽¹⁾ per share) | 2 | — | 114 | — | — | 1 | (38) | 76 |
| Stock purchased and retired | (38) | — | (656) | (1,371) | — | — | — | (2,027) |
| Balance at December 31, 2019 | 652 | \$ — | \$ 11,129 | \$ 12,454 | \$ (7,989) | 9 | \$ (236) | \$ 15,358 |

⁽¹⁾ Weighted average price per share.

The accompanying notes are an integral part of these Consolidated Financial Statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

Delta Air Lines, Inc., a Delaware corporation, provides scheduled air transportation for passengers and cargo throughout the United States ("U.S.") and around the world. Our Consolidated Financial Statements include the accounts of Delta Air Lines, Inc. and our wholly owned subsidiaries and have been prepared in accordance with accounting principles generally accepted in the U.S. ("GAAP"). We do not consolidate the financial statements of any company in which we have voting rights of 50% or less. We are not the primary beneficiary of, nor do we have a controlling financial interest in, a material variable interest entity. Accordingly, we have not consolidated a material variable interest entity.

We have marketing alliances with other airlines to enhance our access to domestic and international markets. These arrangements may include codesharing, reciprocal loyalty program benefits, shared or reciprocal access to passenger lounges, joint promotions, common use of airport gates and ticket counters, ticket office co-location and other marketing agreements. We have received antitrust immunity for certain marketing arrangements, which enables us to offer a more integrated route network and develop common sales, marketing and discount programs for customers. Some of our marketing arrangements provide for the sharing of revenues and expenses. Revenues and expenses associated with collaborative arrangements are presented on a gross basis in the applicable line items on our Consolidated Statements of Operations ("income statement").

We have reclassified certain prior period amounts to conform to the current period presentation. Unless otherwise noted, all amounts disclosed are stated before consideration of income taxes.

Use of Estimates

We are required to make estimates and assumptions when preparing our Consolidated Financial Statements in accordance with GAAP. These estimates and assumptions affect the amounts reported in our Consolidated Financial Statements and the accompanying notes. Actual results could differ materially from those estimates.

Recent Accounting Standards

Standards Effective in Future Years

Credit Losses. In 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-13, "Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." Under this ASU an entity is required to utilize an "expected credit loss model" on certain financial instruments, including trade and financing receivables. This model requires consideration of a broader range of reasonable and supportable information and requires an entity to estimate expected credit losses over the lifetime of the asset. This standard is effective for interim and annual reporting periods beginning after December 15, 2019. We do not expect adoption of this standard to have a material impact on our consolidated financial statements. We will adopt the standard effective January 1, 2020.

Recently Adopted Standards

Comprehensive Income. In February 2018, the FASB issued ASU No. 2018-02, "Income Statement—Reporting Comprehensive Income (Topic 220)." This standard provides an option to reclassify stranded tax effects within accumulated other comprehensive income/(loss) ("AOCI") to retained earnings due to the U.S. federal corporate income tax rate change in the Tax Cuts and Jobs Act of 2017. We adopted this standard effective January 1, 2019 with the election not to reclassify \$1.2 billion of stranded tax effects, primarily related to our pension plans, from AOCI to retained earnings.

Significant Accounting Policies

Our significant accounting policies are disclosed below or included within the topic-specific notes included herein.

Cash and Cash Equivalents and Short-Term Investments

Short-term, highly liquid investments with maturities of three months or less when purchased are classified as cash and cash equivalents. Investments with maturities of greater than three months, but not in excess of one year, when purchased are classified as short-term investments. Investments with maturities beyond one year when purchased may be classified as short-term investments if they are expected to be available to support our short-term liquidity needs. Our short-term investments were classified as fair value investments and gains and losses were recorded in non-operating expense.

Inventories

Fuel. As part of our strategy to mitigate the cost of the refining margin reflected in the price of jet fuel our wholly owned subsidiaries, Monroe Energy, LLC and MIPC, LLC (collectively, "Monroe"), operate the Trainer oil refinery. Refined product, feedstock and blendstock inventories, all of which are finished goods, are carried at recoverable cost. We use jet fuel in our airline operations that is produced by the refinery and procured through the exchange with third parties of gasoline, diesel and other refined products ("non-jet fuel products") the refinery produces. Cost is determined using the first-in, first-out method. Costs include the raw material consumed plus direct manufacturing costs (such as labor, utilities and supplies) incurred and an applicable portion of manufacturing overhead.

Expendables Parts and Supplies. Inventories of expendable parts related to flight equipment, which cannot be economically repaired, reconditioned or reused after removal from the aircraft, are carried at moving average cost and charged to operations as consumed. An allowance for obsolescence is provided over the remaining useful life of the related fleet. We also provide allowances for parts identified as excess or obsolete to reduce the carrying costs to the lower of cost or net realizable value. These parts are assumed to have an estimated residual value of 5% of the original cost.

Accounting for Refinery Related Buy/Sell Agreements

To the extent that we receive jet fuel for non-jet fuel products exchanged under buy/sell agreements, we account for these transactions as nonmonetary exchanges. We have recorded these nonmonetary exchanges at the carrying amount of the non-jet fuel products transferred within aircraft fuel and related taxes on the income statement.

Derivatives

Changes in fuel prices, interest rates and foreign currency exchange rates impact our results of operations. In an effort to manage our exposure to these risks, we may enter into derivative contracts and adjust our derivative portfolio as market conditions change. We recognize derivative contracts at fair value on our Consolidated Balance Sheets ("balance sheets").

The following table summarizes the risk hedged and the classification of related gains and losses in our income statement, by each type of derivative contract:

| Derivative Type | Hedged Risk | Classification of Gains and Losses |
|-------------------------------------|---|---|
| Fuel hedge contracts | Fluctuations in fuel prices | Aircraft fuel and related taxes |
| Interest rate contracts | Increases in interest rates | Interest expense, net |
| Foreign currency exchange contracts | Fluctuations in foreign currency exchange rates | Passenger revenue or non-operating expense (See Note 5) |

The following table summarizes the accounting treatment of our derivative contracts:

| Accounting Designation | Impact of Unrealized Gains and Losses |
|---------------------------------|--|
| Not designated as hedges | Change in fair value ⁽¹⁾ of hedge is recorded in earnings |
| Designated as cash flow hedges | Market adjustments are recorded in AOCI |
| Designated as fair value hedges | Market adjustments are recorded in debt and finance leases |

⁽¹⁾ Including settled gains and losses as well as mark-to-market adjustments ("MTM adjustments").

We perform, at least quarterly, an assessment of the effectiveness of our derivative contracts designated as hedges, including assessing the possibility of counterparty default. If we determine that a derivative is no longer expected to be highly effective, we discontinue hedge accounting prospectively and recognize subsequent changes in the fair value of the hedge in earnings. We believe our derivative contracts that continue to be designated as hedges, consisting of interest rate and foreign currency exchange contracts, will continue to be highly effective in offsetting changes in fair value or cash flow, respectively, attributable to the hedged risk.

Cash flows associated with purchasing and settling hedge contracts generally are classified as operating cash flows. However, if a hedge contract includes a significant financing element at inception, cash flows associated with the hedge contract are recorded as financing cash flows.

Hedge Margin. The hedge margin we receive from counterparties is recorded in cash, with the offsetting obligation in accounts payable. The hedge margin we provide to counterparties is recorded in prepaid expenses and other. We do not offset margin funded to counterparties or margin funded to us by counterparties against fair value amounts recorded for our hedge contracts.

Long-Lived Assets

The following table summarizes our property and equipment:

| (in millions, except for estimated useful life) | Estimated Useful Life | December 31, | |
|--|--|--------------|-----------|
| | | 2019 | 2018 |
| Flight equipment | 20-34 years | \$ 36,713 | \$ 33,898 |
| Ground property and equipment | 3-40 years | 5,721 | 4,667 |
| Information technology-related assets | 3-15 years | 3,276 | 3,361 |
| Flight and ground equipment under finance leases | Shorter of lease term or estimated useful life | 1,608 | 1,055 |
| Advance payments for equipment | | 1,019 | 1,177 |
| Less: accumulated depreciation and amortization ⁽¹⁾ | | (17,027) | (15,823) |
| Total property and equipment, net | | \$ 31,310 | \$ 28,335 |

⁽¹⁾ Includes accumulated amortization for flight and ground equipment under finance leases in the amount of \$546 million and \$566 million at December 31, 2019 and 2018, respectively.

We record property and equipment at cost and depreciate or amortize these assets on a straight-line basis to their estimated residual values over their estimated useful lives. The estimated useful life for leasehold improvements is the shorter of lease term or estimated useful life. Depreciation and amortization expense related to our property and equipment was \$2.6 billion, \$2.3 billion and \$2.2 billion for the years ended December 31, 2019, 2018 and 2017, respectively. Residual values for owned aircraft, engines, spare parts and simulators are generally 5% to 10% of cost.

We capitalize certain internal and external costs incurred to develop and implement software and amortize those costs over an estimated useful life of three to ten years. Included in the depreciation and amortization expense discussed above, we recorded \$239 million, \$205 million and \$187 million for amortization of capitalized software for the years ended December 31, 2019, 2018 and 2017, respectively. The net book value of these assets, which are included in information technology-related assets above, totaled \$1.1 billion and \$819 million at December 31, 2019 and 2018, respectively.

Our tangible assets consist primarily of flight equipment, which is mobile across geographic markets. Accordingly, assets are not allocated to specific geographic regions.

We review flight equipment and other long-lived assets used in operations for impairment losses when events and circumstances indicate the assets may be impaired. Factors which could be indicators of impairment include, but are not limited to, (1) a decision to permanently remove flight equipment or other long-lived assets from operations, (2) significant changes in the estimated useful life, (3) significant changes in projected cash flows, (4) permanent and significant declines in fleet fair values and (5) changes to the regulatory environment. For long-lived assets held for sale, we discontinue depreciation and record impairment losses when the carrying amount of these assets is greater than the fair value less the cost to sell.

To determine whether impairments exist for aircraft used in operations, we group assets at the fleet-type level or at the contract level for aircraft operated by regional carriers (i.e., the lowest level for which there are identifiable cash flows) and then estimate future cash flows based on projections of capacity, passenger mile yield, fuel costs, labor costs and other relevant factors. If an asset group is impaired, the impairment loss recognized is the amount by which the asset group's carrying amount exceeds its estimated fair value. We estimate aircraft fair values using published sources, appraisals and bids received from third parties, as available.

Goodwill and Other Intangible Assets

Our goodwill and identifiable intangible assets relate to the airline segment. We apply a fair value-based impairment test to the carrying value of goodwill and indefinite-lived intangible assets on an annual basis (as of October 1) and, if certain events or circumstances indicate that an impairment loss may have been incurred, on an interim basis. We assess the value of our goodwill and indefinite-lived assets under either a qualitative or quantitative approach. Under a qualitative approach, we consider various market factors, including certain of the key assumptions listed below. We analyze these factors to determine if events and circumstances have affected the fair value of goodwill and indefinite-lived intangible assets. If we determine that it is more likely than not that the asset may be impaired, we use the quantitative approach to assess the asset's fair value and the amount of the impairment. Under a quantitative approach, we calculate the fair value of the asset incorporating the key assumptions listed below into our calculation.

We value goodwill and indefinite-lived intangible assets primarily using market and income approach valuation techniques. These measurements include the following key assumptions: (1) forecasted revenues, expenses and cash flows, (2) terminal period revenue growth and cash flows, (3) an estimated weighted average cost of capital, (4) assumed discount rates depending on the asset and (5) a tax rate. These assumptions are consistent with those that hypothetical market participants would use. Because we are required to make estimates and assumptions when evaluating goodwill and indefinite-lived intangible assets for impairment, actual transaction amounts may differ materially from these estimates.

Changes in certain events and circumstances could result in impairment or a change from indefinite-lived to definite-lived. Factors which could cause impairment include, but are not limited to, (1) negative trends in our market capitalization, (2) reduced profitability resulting from lower passenger mile yields or higher input costs (primarily related to fuel and employees), (3) lower passenger demand as a result of weakened U.S. and global economies, (4) interruption to our operations due to a prolonged employee strike, terrorist attack or other reasons, (5) changes to the regulatory environment (e.g., diminished slot access or additional Open Skies agreements), (6) competitive changes by other airlines and (7) strategic changes to our operations leading to diminished utilization of the intangible assets.

Goodwill. When we evaluate goodwill for impairment using a quantitative approach, we estimate the fair value of the reporting unit by considering both comparable public company multiples (a market approach) and projected discounted future cash flows (an income approach). If the reporting unit's fair value exceeds its carrying value, no further testing is required. If it does not, we recognize an impairment charge if the carrying value of the reporting unit exceeds its estimated fair value.

Identifiable Intangible Assets. Indefinite-lived assets are not amortized and consist of routes, slots, the Delta tradename and assets related to alliances and collaborative arrangements. Definite-lived intangible assets consist primarily of marketing and maintenance service agreements and are amortized on a straight-line basis or under the undiscounted cash flows method over the estimated economic life of the respective agreements. Costs incurred to renew or extend the term of an intangible asset are expensed as incurred.

We assess our indefinite-lived assets under a qualitative or quantitative approach. We analyze market factors to determine if events and circumstances have affected the fair value of the indefinite-lived intangible assets. If we determine that it is more likely than not that the asset value may be impaired, we use the quantitative approach to assess the asset's fair value and the amount of the impairment. We perform the quantitative impairment test for indefinite-lived intangible assets by comparing the asset's fair value to its carrying value. Fair value is estimated based on (1) recent market transactions, where available, (2) the royalty method for the Delta tradename (which assumes hypothetical royalties generated from using our tradename) or (3) projected discounted future cash flows (an income approach). We recognize an impairment charge if the asset's carrying value exceeds its estimated fair value.

Income Taxes

We account for deferred income taxes under the liability method. We recognize deferred tax assets and liabilities based on the tax effects of temporary differences between the financial statement and tax basis of assets and liabilities, as measured by current enacted tax rates. Deferred tax assets and liabilities are net by jurisdiction and are recorded as noncurrent on the balance sheet.

We have elected to recognize earnings of foreign affiliates that are determined to be global intangible low tax income in the period it arises and do not recognize deferred taxes for basis differences that may reverse in future years.

A valuation allowance is recorded to reduce deferred tax assets when necessary. We periodically assess whether it is more likely than not that we will generate sufficient taxable income to realize our deferred income tax assets. We establish valuation allowances if it is not likely we will realize our deferred income tax assets. In making this determination, we consider all available positive and negative evidence and make certain assumptions. We consider, among other things, projected future taxable income, scheduled reversals of deferred tax liabilities, the overall business environment, our historical financial results and tax planning strategies.

Fuel Card Obligation

We have a purchasing card with American Express for the purpose of buying jet fuel and crude oil. The card currently carries a maximum credit limit of \$1.1 billion and must be paid monthly. At December 31, 2019 and 2018, we had \$736 million and \$1.1 billion outstanding on this purchasing card, respectively, and the activity was classified as a financing activity in our Consolidated Statements of Cash Flows.

Retirement of Repurchased Shares

We immediately retire shares repurchased pursuant to our share repurchase program. We allocate the share purchase price in excess of par value between additional paid-in capital and retained earnings.

Manufacturers' Credits

We periodically receive credits in connection with the acquisition of aircraft and engines. These credits are deferred until the aircraft and engines are delivered, and then applied as a reduction to the cost of the related equipment.

Maintenance Costs

We record maintenance costs related to our fleet in aircraft maintenance materials and outside repairs. Maintenance costs are expensed as incurred, except for costs incurred under power-by-the-hour contracts, which are expensed based on actual hours flown. Power-by-the-hour contracts transfer certain risk to third-party service providers and fix the amount we pay per flight hour to the service provider in exchange for maintenance and repairs under a predefined maintenance program. Modifications that enhance the operating performance or extend the useful lives of airframes or engines are capitalized and amortized over the remaining estimated useful life of the asset or the remaining lease term, whichever is shorter.

Advertising Costs

We expense advertising costs in passenger commissions and other selling expenses in the year the advertising first takes place. Advertising expense was \$288 million, \$267 million and \$273 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Commissions

Passenger sales commissions are recognized in operating expense when the related revenue is recognized.

Subsequent Event

Starting in February 2020, we temporarily suspended flights between the U.S. and China as the result of an outbreak of a novel coronavirus originating in Wuhan, Hubei Province, China. We have suspended flights between the U.S. and China through April 30, will continue to monitor the situation closely and may make additional adjustments. Given the uncertainty about the situation, we currently cannot estimate the impact to our financial statements. Flights to and from China have historically represented less than 2% of our revenue. We are currently exploring options for the redeployment of aircraft to other routes within our diverse global network.

NOTE 2. REVENUE RECOGNITION

Passenger Revenue

Passenger revenue is primarily composed of passenger ticket sales, loyalty travel awards and travel-related services performed in conjunction with a passenger's flight.

| (in millions) | Year Ended December 31, | | |
|-------------------------|-------------------------|-----------|-----------|
| | 2019 | 2018 | 2017 |
| Ticket | \$ 36,908 | \$ 34,950 | \$ 32,467 |
| Loyalty travel awards | 2,900 | 2,651 | 2,403 |
| Travel-related services | 2,469 | 2,154 | 2,077 |
| Total passenger revenue | \$ 42,277 | \$ 39,755 | \$ 36,947 |

Ticket

Passenger Tickets. We defer sales of passenger tickets to be flown by us or that we sell on behalf of other airlines in air traffic liability. Passenger revenue is recognized when we provide transportation or when ticket breakage occurs. For tickets that we sell on behalf of other airlines, we reduce the air traffic liability when consideration is remitted to those airlines. We periodically evaluate the estimated air traffic liability and record any adjustments in our income statement. These adjustments relate primarily to refunds, exchanges, ticket breakage, transactions with other airlines and other items for which final settlement occurs in periods subsequent to the sale of the related tickets at amounts other than the original sales price.

Approximately \$3.8 billion, \$3.5 billion and \$3.5 billion of the prior year air traffic liability related to passenger ticket sales (which excludes those tickets sold on behalf of other airlines) was recognized in passenger revenue during the years ended December 31, 2019, 2018 and 2017, respectively.

Ticket Breakage. We estimate the value of tickets that will expire unused and recognize revenue at the scheduled flight date.

Regional Carriers. Our regional carriers include both third-party regional carriers with which we have contract carrier agreements ("contract carriers") and Endeavor Air, Inc., our wholly owned subsidiary. Our contract carrier agreements are primarily structured as capacity purchase agreements where we purchase all or a portion of the contract carrier's capacity and are responsible for selling the seat inventory we purchase. We record revenue related to our capacity purchase agreements in passenger revenue and the related expenses in regional carriers expense, excluding fuel.

Loyalty Travel Awards

Loyalty travel awards revenue is related to the redemption of miles for travel. We recognize loyalty travel awards revenue in passenger revenue as miles are redeemed and transportation is provided. See below for discussion of our loyalty program accounting policies.

Travel-Related Services

Travel-related services are primarily composed of services performed in conjunction with a passenger's flight, including administrative fees (such as ticket change fees), baggage fees and on-board sales. We recognize revenue for these services when the related transportation service is provided.

Loyalty Program

Our SkyMiles loyalty program generates customer loyalty by rewarding customers with incentives to travel on Delta. This program allows customers to earn mileage credits ("miles") by flying on Delta, Delta Connection and other airlines that participate in the loyalty program. When traveling, customers earn redeemable miles based on the passenger's loyalty program status and ticket price. Customers can also earn miles through participating companies such as credit card companies, hotels, car rental agencies and ridesharing companies. To facilitate transactions with participating companies, we sell miles to non-airline businesses, customers and other airlines. Miles are redeemable by customers in future periods for air travel on Delta and other participating airlines, membership in our Sky Club and other program awards.

To reflect the miles earned, the loyalty program includes two types of transactions that are considered revenue arrangements with multiple performance obligations: (1) miles earned with travel and (2) miles sold to participating companies.

Passenger Ticket Sales Earning Miles. Passenger ticket sales earning miles under our loyalty program provide customers with (1) miles earned and (2) air transportation, which are considered performance obligations. We value each performance obligation on a standalone basis. To value the miles earned, we consider the quantitative value a passenger receives by redeeming miles for a ticket rather than paying cash, which is referred to as equivalent ticket value ("ETV"). Our estimate of ETV is adjusted for miles that are not likely to be redeemed ("breakage"). We use statistical models to estimate breakage based on historical redemption patterns. A change in assumptions as to the actual redemption activity for miles or the estimated fair value of miles expected to be redeemed could have a material impact on our revenue in the year in which the change occurs and in future years. We recognize breakage proportionally during the period in which the remaining miles are actually redeemed.

We defer revenue for the miles when earned and recognize loyalty travel awards in passenger revenue as the miles are redeemed and transportation is provided. We record the air transportation portion of the passenger ticket sales in air traffic liability and recognize passenger revenue when we provide transportation or if the ticket goes unused.

Sale of Miles. Customers may earn miles based on their spending with participating companies such as credit card companies, hotels, car rental agencies and ridesharing companies with which we have marketing agreements to sell miles. Our contracts to sell miles under these marketing agreements have multiple performance obligations. Payments are typically due monthly based on the volume of miles sold during the period, and the terms of our marketing contracts are from one to eleven years. During the years ended December 31, 2019, 2018 and 2017, total cash sales from marketing agreements were \$4.2 billion, \$3.5 billion and \$3.2 billion, respectively, which are allocated to travel and other performance obligations, as discussed below.

Our most significant contract to sell miles relates to our co-brand credit card relationship with American Express. Our agreements with American Express provide for joint marketing, grant certain benefits to Delta-American Express co-branded credit card holders ("cardholders") and American Express Membership Rewards program participants, and allow American Express to market its services or products using our customer database. Cardholders earn miles for making purchases using co-branded cards, and certain cardholders may also check their first bag for free, are granted discounted access to Delta Sky Club lounges and receive priority boarding and other benefits while traveling on Delta. Additionally, participants in the American Express Membership Rewards program may exchange their points for miles under the loyalty program. We sell miles at agreed-upon rates to American Express which are then provided to their customers under the co-brand credit card program and the Membership Rewards program.

We account for marketing agreements, including those with American Express, by allocating the consideration received to the individual products and services delivered. We allocate the value based on the relative selling prices of those products and services, which generally consist of award travel, priority boarding, baggage fee waivers, lounge access and the use of our brand. We determine our best estimate of the selling prices by using a discounted cash flow analysis using multiple inputs and assumptions, including: (1) the expected number of miles awarded and number of miles redeemed, (2) ETV for the award travel obligation adjusted for breakage, (3) published rates on our website for baggage fees, discounted access to Delta Sky Club lounges and other benefits while traveling on Delta, (4) brand value (using estimated royalties generated from the use of our brand) and (5) volume discounts provided to certain partners.

Effective January 1, 2019, we amended our co-brand agreement with American Express, and we also amended other agreements with American Express during the current year. The new agreements increase the value we receive and extend the terms to 2029. The products and services delivered are consistent with previous agreements, and we continue to allocate the consideration received based on the relative selling prices of those products and services.

We defer the amount for award travel obligation as part of loyalty program deferred revenue and recognize loyalty travel awards in passenger revenue as the miles are used for travel. Revenue allocated to services performed in conjunction with a passenger's flight, such as baggage fee waivers, is recognized as travel-related services in passenger revenue when the related service is performed. Revenue allocated to access Delta Sky Club lounges is recognized as miscellaneous in other revenue as access is provided. Revenue allocated to the remaining performance obligations, primarily brand value, is recorded as loyalty program in other revenue as miles are delivered.

Current Activity of the Loyalty Program. Miles are combined in one homogeneous pool and are not separately identifiable. As such, the revenue is comprised of miles that were part of the loyalty program deferred revenue balance at the beginning of the period as well as miles that were issued during the period.

The table below presents the activity of the current and noncurrent loyalty program liability, and includes miles earned through travel and miles sold to participating companies, which are primarily through marketing agreements.

| (in millions) | 2019 | 2018 |
|---------------------------|----------|----------|
| Balance at January 1 | \$ 6,641 | \$ 6,321 |
| Miles earned | 3,156 | 3,142 |
| Travel miles redeemed | (2,900) | (2,651) |
| Non-travel miles redeemed | (169) | (171) |
| Balance at December 31 | \$ 6,728 | \$ 6,641 |

The timing of mile redemptions can vary widely; however, the majority of new miles are redeemed within two years.

Revenue by Geographic Region

Operating revenue for the airline segment is recognized in a specific geographic region based on the origin, flight path and destination of each flight segment. The majority of the revenues of the refinery, consisting of fuel sales to the airline, have been eliminated in the Consolidated Financial Statements. The remaining operating revenue for the refinery segment is included in the domestic region. Our passenger and operating revenue by geographic region is summarized in the following table:

| (in millions) | Passenger Revenue | | | Operating Revenue | | |
|---------------|-------------------------|-----------|-----------|-------------------------|-----------|-----------|
| | Year Ended December 31, | | | Year Ended December 31, | | |
| | 2019 | 2018 | 2017 | 2019 | 2018 | 2017 |
| Domestic | \$ 30,367 | \$ 28,159 | \$ 26,079 | \$ 33,284 | \$ 31,233 | \$ 28,850 |
| Atlantic | 6,381 | 6,165 | 5,537 | 7,363 | 7,042 | 6,297 |
| Latin America | 3,002 | 2,888 | 2,862 | 3,343 | 3,181 | 3,133 |
| Pacific | 2,527 | 2,543 | 2,469 | 3,017 | 2,982 | 2,858 |
| Total | \$ 42,277 | \$ 39,755 | \$ 36,947 | \$ 47,007 | \$ 44,438 | \$ 41,138 |

Cargo Revenue

Cargo revenue is recognized when we provide the transportation.

Other Revenue

| (in millions) | Year Ended December 31, | | |
|-----------------------------------|-------------------------|----------|----------|
| | 2019 | 2018 | 2017 |
| Loyalty program | \$ 1,962 | \$ 1,459 | \$ 1,269 |
| Ancillary businesses and refinery | 1,297 | 1,801 | 1,591 |
| Miscellaneous | 718 | 558 | 587 |
| Total other revenue | \$ 3,977 | \$ 3,818 | \$ 3,447 |

Loyalty Program. Loyalty program revenues relate primarily to brand usage by third parties and include the redemption of miles for non-travel awards. These revenues are included within the total cash sales from marketing agreements, discussed above.

Ancillary Businesses and Refinery. Ancillary businesses and refinery includes aircraft maintenance provided to third parties, our vacation wholesale operations, our private jet operations and refinery sales to third parties. Third-party refinery production sales are at or near cost; accordingly, the margin on these sales is de minimis. See Note 15, "Segments," for more information on revenue recognition within our refinery segment.

In January 2020, we combined Delta Private Jets, our wholly owned subsidiary which provides private jet operations, with Wheels Up. Upon closing, we received an equity stake in Wheels Up and Delta Private Jets will no longer be reflected in ancillary businesses and refinery. See Note 4, "Investments," for more information on this transaction.

In 2018, we sold DAL Global Services, LLC ("DGS"), which provides aviation-related, ground support equipment maintenance and professional security services, to AirCo Aviation Services, LLC ("AirCo"), a subsidiary of Argenbright Holdings, LLC. Accordingly, DGS is no longer reflected within ancillary businesses and refinery in 2019.

Miscellaneous. Miscellaneous revenue is primarily composed of lounge access and codeshare revenues.

Accounts Receivable

Accounts receivable primarily consist of amounts due from credit card companies from the sale of passenger tickets, ancillary businesses and refinery sales, and other companies for the purchase of miles under the loyalty program. We provide an allowance for uncollectible accounts equal to the estimated losses expected to be incurred based on historical chargebacks, write-offs, bankruptcies and other specific analyses. Bad debt expense was not material in any period presented.

Passenger Taxes and Fees

We are required to charge certain taxes and fees on our passenger tickets, including U.S. federal transportation taxes, federal security charges, airport passenger facility charges and foreign arrival and departure taxes. These taxes and fees are assessments on the customer for which we act as a collection agent. Because we are not entitled to retain these taxes and fees, we do not include such amounts in passenger revenue. We record a liability when the amounts are collected and reduce the liability when payments are made to the applicable government agency or operating carrier (i.e., for codeshare-related fees).

NOTE 3. FAIR VALUE MEASUREMENTS

Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. Fair value is a market-based measurement that is determined based on assumptions that market participants would use in pricing an asset or liability.

- *Level 1.* Observable inputs such as quoted prices in active markets;
- *Level 2.* Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and
- *Level 3.* Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Assets and liabilities measured at fair value are based on the valuation techniques identified in the tables below. The valuation techniques are as follows:

- (a) *Market Approach.* Prices and other relevant information generated by observable transactions involving identical or comparable assets or liabilities; and
- (b) *Income Approach.* Techniques to convert future amounts to a single present value amount based on market expectations (including present value techniques and option-pricing models).

Assets (Liabilities) Measured at Fair Value on a Recurring Basis⁽¹⁾

| (in millions) | December 31, 2019 | | | Valuation Technique |
|-------------------------------------|-------------------|---------|---------|---------------------|
| | Total | Level 1 | Level 2 | |
| Cash equivalents | \$ 586 | \$ 586 | \$ — | (a) |
| Restricted cash equivalents | 847 | 847 | — | (a) |
| Long-term investments | 1,099 | 881 | 218 | (a) |
| Hedge derivatives, net | | | | |
| Fuel hedge contracts | 1 | (1) | 2 | (a)(b) |
| Interest rate contracts | 61 | — | 61 | (a) |
| Foreign currency exchange contracts | 6 | — | 6 | (a) |

| (in millions) | December 31, 2018 | | | Valuation Technique |
|---------------------------------------|-------------------|----------|---------|---------------------|
| | Total | Level 1 | Level 2 | |
| Cash equivalents | \$ 1,222 | \$ 1,222 | \$ — | (a) |
| Restricted cash equivalents | 1,183 | 1,183 | — | (a) |
| Short-term investments | | | | |
| U.S. government securities | 50 | 45 | 5 | (a) |
| Asset- and mortgage-backed securities | 36 | — | 36 | (a) |
| Corporate obligations | 90 | — | 90 | (a) |
| Other fixed income securities | 27 | — | 27 | (a) |
| Long-term investments | 1,090 | 880 | 210 | (a) |
| Hedge derivatives, net | | | | |
| Fuel hedge contracts | 15 | 20 | (5) | (a)(b) |
| Interest rate contracts | 1 | — | 1 | (a) |
| Foreign currency exchange contracts | (3) | — | (3) | (a) |

⁽¹⁾ See Note 10, "Employee Benefit Plans," for fair value of benefit plan assets.

Cash Equivalents and Restricted Cash Equivalents. Cash equivalents generally consist of money market funds. Restricted cash equivalents generally consist of money market funds, time deposits, commercial paper and negotiable certificates of deposit, which primarily relate to proceeds from debt issued to finance a portion of the construction costs for the new terminal facilities at New York's LaGuardia Airport. The fair value of these cash equivalents is based on a market approach using prices generated by market transactions involving identical or comparable assets.

Short-Term Investments. The fair values of our short-term investments were based on a market approach using industry standard valuation techniques that incorporated observable inputs such as quoted market prices, interest rates, benchmark curves, credit ratings of the security or other observable information and were recorded in prepaid expenses and other on the balance sheet.

Long-Term Investments. Our long-term investments that are measured at fair value primarily consist of equity investments which are valued based on market prices or other observable transactions and are recorded in other noncurrent assets on our balance sheet. See Note 4, "Investments," for further information on our equity investments.

Hedge Derivatives. A portion of our derivative contracts are negotiated over-the-counter with counterparties without going through a public exchange. Accordingly, our fair value assessments give consideration to the risk of counterparty default (as well as our own credit risk). Such contracts are classified as Level 2 within the fair value hierarchy. The remainder of our hedge contracts are comprised of futures contracts, which are traded on a public exchange. These contracts are classified within Level 1 of the fair value hierarchy.

- **Fuel Contracts.** Our fuel hedge portfolio consists of options, swaps and futures. Option and swap contracts are valued under income approaches using option pricing models and discounted cash flow models, respectively, based on data either readily observable in public markets, derived from public markets or provided by counterparties who regularly trade in public markets. Futures contracts and options on futures contracts are traded on a public exchange and valued based on quoted market prices.

- *Interest Rate Contracts.* Our interest rate derivatives are swap contracts, which are valued based on data readily observable in public markets.
- *Foreign Currency Exchange Contracts.* Our foreign currency derivatives consist of forward contracts and are valued based on data readily observable in public markets.

NOTE 4. INVESTMENTS

Long-Term Investments

We have developed strategic relationships with a number of airlines and airline services companies through equity investments and other forms of cooperation and support. Our equity investments reinforce our commitment to these relationships and provide us with the ability to participate in strategic decision-making, often through representation on the boards of directors of the investee.

During the years ended December 31, 2019 and 2018, we recorded net gains on our equity investments of \$119 million and \$38 million, respectively, which were recorded in gain/(loss) on investments in our income statement within non-operating expense. These net gains were primarily driven by changes in stock prices and foreign currency fluctuations as well as the sale of certain investments, as described below. During 2017, before we adopted the new financial instruments accounting standard in 2018, we recorded unrealized gains and losses on available-for-sale investments in AOCI.

Fair Value Investments

Our investments accounted for at fair value are summarized in the following table:

| (in millions) | Ownership Interest | | Carrying Value | |
|------------------------------|--------------------|-------------------|-------------------|-------------------|
| | December 31, 2019 | December 31, 2018 | December 31, 2019 | December 31, 2018 |
| Air France-KLM | 9 % | 9 % | \$ 418 | \$ 408 |
| China Eastern | 3 % | 3 % | 258 | 259 |
| Hanjin-KAL | 10 % | — % | 205 | — |
| GOL | — % | 9 % | — | 213 |
| Other investments | | | 218 | 210 |
| Total fair value investments | | | \$ 1,099 | \$ 1,090 |

During 2019, we acquired 10% of the outstanding shares of Hanjin-KAL, the largest shareholder of Korean Air.

In the December 2019 quarter we sold our 9% ownership stake of GOL Linhas Aéreas Inteligentes, the parent company of VRG Linhas Aéreas (operating as GOL), for \$278 million. The gain on sale of our investment in GOL is recorded in gain/(loss) on investments within non-operating expense in our income statement.

Additionally, GOL has a \$300 million five-year term loan facility with third parties maturing in 2020, which we have guaranteed. Our guaranty is secured by GOL's ownership interest in Smiles, GOL's publicly-traded loyalty program. Because GOL remains in compliance with the terms of its loan facility, we have not recorded a liability on our balance sheet as of December 31, 2019.

Equity Method Investments

We account for the investments listed below under the equity method of accounting.

| (in millions) | Ownership Interest | | Carrying Value | |
|---------------------------------|--------------------|-------------------|-------------------|-------------------|
| | December 31, 2019 | December 31, 2018 | December 31, 2019 | December 31, 2018 |
| Grupo Aeroméxico ⁽¹⁾ | 51 % | 51 % | \$ 833 | \$ 897 |
| Virgin Atlantic ⁽²⁾ | 49 % | 49 % | 375 | 383 |
| AirCo | 49 % | 49 % | 142 | 109 |

⁽¹⁾ Grupo Aeroméxico's corporate bylaws (as authorized by the Mexican Foreign Investment Commission) limit our voting interest to a maximum of 49%. Therefore, we account for our investment under the equity method. Due to Aeroméxico's share repurchase program, our equity stake in Grupo Aeroméxico has increased to a non-controlling 51% interest.

⁽²⁾ We have a non-controlling equity stake in Virgin Atlantic Limited, the parent company of Virgin Atlantic Airways, and similar non-controlling interests in certain affiliated Virgin Atlantic companies.

Our portion of Grupo Aeroméxico's and Virgin Atlantic's financial results are recorded in miscellaneous, net in our income statement under non-operating expense, and our share of AirCo's financial results is recorded in contracted services in our income statement as this entity is integral to the operations of our business. We also have an investment in JFK IAT Member LLC which is accounted for under the equity method and is discussed further in Note 9, "Airport Redevelopment."

Our equity method investments are recorded in other noncurrent assets on our balance sheet. If an equity method investment experiences a loss in fair value that is determined to be other than temporary, we will reduce our basis in the investment to fair value and record the loss in gain/(loss) on investments.

In September 2019, we announced our plan to enter into a strategic alliance with LATAM Airlines Group S.A ("LATAM") as well as acquire up to a 20% interest through a tender offer. In January 2020, we acquired 20% of the shares of LATAM for \$1.9 billion, or \$16 per share.

In addition, to support the establishment of the strategic alliance, we will invest \$350 million, \$200 million of which was disbursed in 2019. As part of our planned strategic alliance with LATAM, we have also agreed to acquire four A350 aircraft from LATAM and plan to assume ten of LATAM's A350 purchase commitments from Airbus, with deliveries through 2025.

In January 2020, we combined Delta Private Jets, our wholly owned subsidiary which provides private jet operations, with Wheels Up. Upon closing, we received a 27% equity stake in Wheels Up, which will be accounted for under the equity method beginning in the March 2020 quarter.

NOTE 5. DERIVATIVES AND RISK MANAGEMENT

Changes in fuel prices, interest rates and foreign currency exchange rates impact our results of operations. In an effort to manage our exposure to these risks, we may enter into derivative contracts and adjust our derivative portfolio as market conditions change. We recognize derivative contracts at fair value on our balance sheets.

Fuel Price Risk

Our derivative contracts to hedge the financial risk from changing fuel prices are primarily related to Monroe's inventory. During the years ended December 31, 2019, 2018 and 2017, fuel hedges did not have a significant impact in our income statement.

Interest Rate Risk

Our exposure to market risk from adverse changes in interest rates is primarily associated with our debt obligations. Market risk associated with our fixed and variable rate debt relates to the potential reduction in fair value and negative impact to future earnings, respectively, from an increase in interest rates.

In an effort to manage our exposure to the risk associated with our variable rate debt, we periodically enter into interest rate swaps. We designate interest rate contracts used to convert the interest rate exposure on a portion of our debt portfolio from a floating rate to a fixed rate as cash flow hedges, while those contracts converting our interest rate exposure from a fixed rate to a floating rate are designated as fair value hedges.

We also have exposure to market risk from adverse changes in interest rates associated with our cash and cash equivalents and benefit plan obligations. Market risk associated with our cash and cash equivalents relates to the potential decline in interest income from a decrease in interest rates. Pension, postretirement, postemployment and worker's compensation obligation risk relates to the potential increase in our future obligations and expenses from a decrease in interest rates used to discount these obligations.

Foreign Currency Exchange Rate Risk

We are subject to foreign currency exchange rate risk because we have revenue, expense and equity investments denominated in foreign currencies. To manage exchange rate risk, we execute both our international revenue and expense transactions in the same foreign currency to the extent practicable. From time to time, we may also enter into foreign currency option and forward contracts.

In November 2019, we entered into a three and a half-year U.S. dollar-South Korean won ("KRW") cross currency swap with a notional value of 177 billion KRW. This swap is intended to mitigate foreign currency volatility resulting from our KRW-denominated investment in Hanjin-KAL. During the year ended December 31, 2019, we recorded an unrealized loss on this swap of \$3 million, which is reflected in gain/(loss) on investments, net within non-operating expense.

In January 2018, we entered into a three-year U.S. dollar-Euro cross currency swap with a notional value of €375 million. This swap was intended to mitigate foreign currency volatility resulting from our Euro-denominated investment in Air France-KLM. In response to favorable changes in interest rates and the U.S. dollar-Euro exchange rate, we settled the cross currency swap in August 2018. Upon settlement, we recognized gains of \$18 million in miscellaneous in our income statement within non-operating expense. Subsequently, we entered into a new U.S. dollar-Euro cross currency swap with a notional value of €397 million and a maturity date in December 2020. During the years ended December 31, 2019 and 2018, we recorded an unrealized gain of \$13 million and an unrealized loss of \$4 million, respectively, on this swap which is reflected in gain/(loss) on investments, net within non-operating expense.

Hedge Position as of December 31, 2019

| (in millions) | Volume | Final Maturity Date | Prepaid Expenses and Other | Other Noncurrent Assets | Other Accrued Liabilities | Other Noncurrent Liabilities | Hedge Derivatives, net |
|---|--|---------------------|----------------------------|-------------------------|---------------------------|------------------------------|------------------------|
| Designated as hedges | | | | | | | |
| Interest rate contracts (fair value hedges) | 1,872 U.S. dollars | April 2028 | \$ 12 | \$ 53 | \$ (4) | \$ — | \$ 61 |
| Not designated as hedges | | | | | | | |
| Foreign currency exchange contract | 397 Euros | December 2020 | 9 | — | — | — | 9 |
| Foreign currency exchange contract | 177,045 South Korean won | April 2023 | 1 | — | — | (4) | (3) |
| Fuel hedge contracts | 243 gallons - crude oil and refined products | July 2020 | 16 | — | (15) | — | 1 |
| Total derivative contracts | | | \$ 38 | \$ 53 | \$ (19) | \$ (4) | \$ 68 |

Hedge Position as of December 31, 2018

| (in millions) | Volume | Final Maturity Date | Prepaid Expenses and Other | Other Noncurrent Assets | Other Accrued Liabilities | Other Noncurrent Liabilities | Hedge Derivatives, net |
|---|--|---------------------|----------------------------|-------------------------|---------------------------|------------------------------|------------------------|
| Designated as hedges | | | | | | | |
| Interest rate contracts (fair value hedges) | 1,893 U.S. dollars | April 2028 | \$ — | \$ 8 | \$ (7) | \$ — | \$ 1 |
| Foreign currency exchange contracts | 6,934 Japanese yen | November 2019 | 1 | — | — | — | 1 |
| Not designated as hedges | | | | | | | |
| Foreign currency exchange contract | 397 Euros | December 2020 | 13 | — | — | (17) | (4) |
| Fuel hedge contracts | 219 gallons - crude oil and refined products | December 2019 | 30 | — | (15) | — | 15 |
| Total derivative contracts | | | \$ 44 | \$ 8 | \$ (22) | \$ (17) | \$ 13 |

Balance Sheet Location of Hedged Item in Fair Value Hedges

| (in millions) | Carrying Amount of Hedge Instruments | | Cumulative Amount of Fair Value Hedge Adjustments | |
|---|--------------------------------------|-------------------|---|-------------------|
| | December 31, 2019 | December 31, 2018 | December 31, 2019 | December 31, 2018 |
| Current maturities of debt and finance leases | \$ (19) | \$ (11) | \$ 8 | \$ 7 |
| Debt and finance leases | (1,783) | (1,870) | 53 | (8) |

Offsetting Assets and Liabilities

We have master netting arrangements with our counterparties giving us the right to offset hedge assets and liabilities. However, we have elected not to offset the fair value positions recorded on our balance sheets. The following table shows the net fair value of our counterparty positions had we elected to offset.

| (in millions) | Prepaid Expenses and Other | Other Noncurrent Assets | Other Accrued Liabilities | Other Noncurrent Liabilities | Hedge Derivatives, Net |
|--------------------------|----------------------------|-------------------------|---------------------------|------------------------------|------------------------|
| December 31, 2019 | | | | | |
| Net derivative contracts | \$ 24 | \$ 53 | \$ (5) | \$ (4) | \$ 68 |
| December 31, 2018 | | | | | |
| Net derivative contracts | \$ 35 | \$ — | \$ (13) | \$ (9) | \$ 13 |

Designated Hedge Gains (Losses)

Gains (losses) related to our designated hedge contracts during the years ended December 31, 2019, 2018 and 2017 are as follows:

| (in millions) | Gain (Loss) Reclassified from AOCI to Earnings | | | Gain (Loss) Recognized in Other Comprehensive Income (Loss) | | |
|--|--|--------|-------|---|------|---------|
| | 2019 | 2018 | 2017 | 2019 | 2018 | 2017 |
| Foreign currency exchange contracts ⁽¹⁾ | \$ 1 | \$ (3) | \$ 10 | \$ — | \$ 1 | \$ (43) |

⁽¹⁾ Earnings on our designated foreign currency exchange contracts are recorded in passenger revenue in the income statement. These hedge contracts settled during the year ended December 31, 2019.

Not Designated Hedge Gains (Losses)

Gains (losses) related to our foreign currency exchange and fuel contracts are as follows:

| (in millions) | Location of Gain (Loss) Recognized in Income | Gain (Loss) Recognized in Income | | |
|-------------------------------------|--|----------------------------------|--------|---------|
| | | Year Ended December 31, | | |
| | | 2019 | 2018 | 2017 |
| Foreign currency exchange contracts | Gain/(loss) on investments, net | \$ 10 | \$ (4) | \$ — |
| Fuel hedge contracts | Aircraft fuel and related taxes | (41) | 52 | (81) |
| Total | | \$ (31) | \$ 48 | \$ (81) |

Credit Risk

To manage credit risk associated with our fuel price, interest rate and foreign currency hedging programs, we evaluate counterparties based on several criteria including their credit ratings and limit our exposure to any one counterparty.

Our hedge contracts often contain margin funding requirements. The margin funding requirements may cause us to post margin to counterparties or may cause counterparties to post margin to us as market prices in the underlying hedged items change. Due to the fair value position of our hedge contracts, we posted margin of \$34 million as of December 31, 2019 and held margin of \$9 million as of December 31, 2018.

Our accounts receivable are generated largely from the sale of passenger airline tickets and cargo transportation services, the majority of which are processed through major credit card companies. We also have receivables from the sale of miles under our loyalty program to participating airlines and non-airline businesses such as credit card companies, hotels, car rental agencies and ridesharing companies. The credit risk associated with our receivables is minimal.

Self-Insurance Risk

We self-insure a portion of our losses from claims related to workers' compensation, environmental issues, property damage, medical insurance for employees and general liability. Losses are accrued based on an estimate of the aggregate liability for claims incurred, using independent actuarial reviews based on standard industry practices and our historical experience.

NOTE 6. INTANGIBLE ASSETS

Indefinite-Lived Intangible Assets

| (in millions) | Carrying Value at December 31, | |
|--------------------------------|--------------------------------|----------|
| | 2019 | 2018 |
| International routes and slots | \$ 2,583 | \$ 2,583 |
| Airline alliances | 1,005 | 661 |
| Delta tradename | 850 | 850 |
| Domestic slots | 622 | 622 |
| Total | \$ 5,060 | \$ 4,716 |

International Routes and Slots. Our international routes and slots primarily relate to Pacific route authorities and slots at capacity-constrained airports in Asia, and slots at London-Heathrow airport.

Airline Alliances. Our airline alliances intangible assets primarily relate to our commercial agreements with SkyTeam partners and LATAM.

Domestic Slots. Our domestic slots relate to our slots at New York-LaGuardia and Washington-Reagan National airports.

Definite-Lived Intangible Assets

| (in millions) | December 31, 2019 | | December 31, 2018 | |
|----------------------|----------------------|--------------------------|----------------------|--------------------------|
| | Gross Carrying Value | Accumulated Amortization | Gross Carrying Value | Accumulated Amortization |
| Marketing agreements | \$ 730 | \$ (692) | \$ 730 | \$ (687) |
| Contracts | 193 | (128) | 193 | (122) |
| Other | 53 | (53) | 53 | (53) |
| Total | \$ 976 | \$ (873) | \$ 976 | \$ (862) |

Amortization expense was \$11 million for the year ended December 31, 2019 and \$17 million for each of the years ended December 31, 2018 and 2017. Based on our definite-lived intangible assets at December 31, 2019, we estimate that we will incur approximately \$9 million of amortization expense annually from 2020 through 2024.

NOTE 7. DEBT

The following table summarizes our debt:

| (in millions) | Maturity Dates | | | Interest Rate(s) ⁽¹⁾ Per Annum at December 31, 2019 | | | December 31, | |
|--|----------------|----|------|--|----|----------|--------------|----------|
| | | | | | | | 2019 | 2018 |
| Unsecured notes | 2020 | to | 2029 | 2.60% | to | 4.38% | \$ 5,550 | \$ 4,050 |
| Financing arrangements secured by aircraft: | | | | | | | | |
| Certificates ⁽²⁾ | 2020 | to | 2027 | 3.20% | to | 8.02% | 1,669 | 1,837 |
| Notes ⁽²⁾ | 2020 | to | 2025 | 1.99% | to | 6.08% | 1,193 | 1,787 |
| NYTDC Special Facilities Revenue Bonds, Series 2018 ⁽²⁾ | 2022 | to | 2036 | 4.00% | to | 5.00% | 1,383 | 1,383 |
| Other financings ⁽²⁾⁽³⁾ | 2021 | to | 2030 | 2.51% | to | 8.75% | 196 | 251 |
| 2018 Unsecured Revolving Credit Facility | 2021 | to | 2023 | undrawn | | variable | — | — |
| Other revolving credit facilities | 2020 | to | 2021 | undrawn | | variable | — | — |
| Total secured and unsecured debt | | | | | | | 9,991 | 9,308 |
| Unamortized premium and debt issuance cost, net and other | | | | | | | 115 | 60 |
| Total debt | | | | | | | 10,106 | 9,368 |
| Less: current maturities | | | | | | | (2,054) | (1,409) |
| Total long-term debt | | | | | | | \$ 8,052 | \$ 7,959 |

⁽¹⁾ Certain aircraft and other financings are comprised of variable rate debt. All variable rates are equal to LIBOR (generally subject to a floor) or another index rate, in each case plus a specified margin.

⁽²⁾ Due in installments.

⁽³⁾ Primarily includes unsecured bonds and debt secured by certain accounts receivable and real estate.

2019 Unsecured Notes

In October 2019, we issued \$1.5 billion in aggregate principal amount of unsecured notes, consisting of \$900 million of 2.9% Notes due 2024 and \$600 million of 3.75% Notes due 2029 (collectively, the "Notes"). These Notes are included in Unsecured notes in the table above. We used the net proceeds from the offering of these Notes to fund a portion of the tender offer to acquire common shares of LATAM in January 2020. See Note 4, "Investments," for further information on our investment in LATAM.

2019-1 EETC

We completed a \$500 million offering of Pass Through Certificates, Series 2019-1 ("2019-1 EETC") utilizing a pass through trust during 2019. This amount is included in Certificates in the table above. The details of the 2019-1 EETC, which is secured by 14 aircraft, are shown in the table below:

| (in millions) | Total Principal | Fixed Interest Rate | Issuance Date | Final Maturity Date |
|------------------------------|-----------------|---------------------|---------------|---------------------|
| 2019-1 Class AA Certificates | \$ 425 | 3.204 % | March 2019 | April 2024 |
| 2019-1 Class A Certificates | 75 | 3.404 % | March 2019 | April 2024 |
| Total | \$ 500 | | | |

2019 Unsecured Term Loan

In February 2019, we entered into a \$1 billion term loan issued by two lenders, which was subsequently repaid by the end of the June 2019 quarter. We used the net proceeds of the term loan to accelerate planned 2019 repurchases under our share repurchase program.

Financial Covenants

We were in compliance with the covenants in our financing agreements at December 31, 2019.

Availability Under Revolving Credit Facilities

The table below shows availability under revolving credit facilities, all of which were undrawn, as of December 31, 2019:

| (in millions) | |
|--|----------|
| 2018 Unsecured Revolving Credit Facility | \$ 2,650 |
| Other revolving credit facilities | 459 |
| Total availability under revolving credit facilities | \$ 3,109 |

Future Maturities

The following table summarizes scheduled maturities of our debt for the years succeeding December 31, 2019:

| (in millions) | Total Debt | Amortization of Debt Premium and Debt Issuance Cost, net and other | |
|---------------|------------|--|-----------|
| | | | |
| 2020 | \$ 2,060 | \$ 13 | |
| 2021 | 1,094 | 15 | |
| 2022 | 1,708 | 16 | |
| 2023 | 932 | 11 | |
| 2024 | 1,508 | 10 | |
| Thereafter | 2,689 | 50 | |
| Total | \$ 9,991 | \$ 115 | \$ 10,106 |

Fair Value of Debt

Market risk associated with our fixed- and variable-rate debt relates to the potential reduction in fair value and negative impact to future earnings, respectively, from an increase in interest rates. The fair value of debt, shown below, is principally based on reported market values, recently completed market transactions and estimates based on interest rates, maturities, credit risk and underlying collateral. Debt is primarily classified as Level 2 within the fair value hierarchy.

| (in millions) | December 31, | |
|---------------------|--------------|----------|
| | 2019 | 2018 |
| Net carrying amount | \$ 10,106 | \$ 9,368 |
| Fair value | \$ 10,400 | \$ 9,400 |

NOTE 8. LEASES

During 2018, we adopted ASU No. 2016-02, "Leases (Topic 842)," which requires leases with durations greater than twelve months to be recognized on the balance sheet. We adopted the standard using the modified retrospective approach with an effective date of January 1, 2018. Prior year financial statements were not recast under the new standard. We elected the package of transition provisions available for expired or existing contracts, which allowed us to carryforward our historical assessments of (1) whether contracts are or contain leases, (2) lease classification and (3) initial direct costs.

For leases with terms greater than 12 months, we record the related asset and obligation at the present value of lease payments over the term. Many of our leases include rental escalation clauses, renewal options and/or termination options that are factored into our determination of lease payments when appropriate. We do not separate lease and nonlease components of contracts, except for regional aircraft and information technology ("IT") assets as discussed below.

When available, we use the rate implicit in the lease to discount lease payments to present value; however, we have an insignificant number of leases representing an immaterial portion of our lease liability that provide readily determinable implicit rates. When the rate implicit in the lease is not available, we use our incremental borrowing rate, which is based on the estimated interest rate for collateralized borrowing over a similar term of the lease at commencement date.

Some of our aircraft lease agreements include provisions for residual value guarantees. These provisions primarily relate to our regional aircraft and the amounts are not significant. We do not have other forms of variable interests with the lessors of our leased assets, other than at New York-JFK, in which we are not the primary beneficiary as discussed in Note 9, "Airport Redevelopment," and one lessor, in which we have a variable interest in certain immaterial aircraft leases, that we have consolidated.

Aircraft

As of December 31, 2019, including aircraft operated by our regional carriers, we leased 343 aircraft, of which 130 were under finance leases and 213 were operating leases. Our aircraft leases had remaining lease terms of one month to 12 years. Aircraft finance leases continue to be reported on our balance sheet, while operating leases were added to the balance sheet in 2018 with the adoption of the new standard.

In addition, we have regional aircraft leases that are embedded within our capacity purchase agreements and included in the right-of-use ("ROU") asset and lease liability. We allocated the consideration in each capacity purchase agreement to the lease and nonlease components based on their relative standalone value. Lease components of these agreements consist of 162 aircraft as of December 31, 2019 and nonlease components primarily consist of flight operations, in-flight and maintenance services. We determined our best estimate of the standalone value of the individual components by considering observable information including rates paid by our wholly owned subsidiary, Endeavor Air, Inc., and rates published by independent valuation firms. See Note 11, "Commitments and Contingencies," for additional information about our capacity purchase agreements.

With the adoption of the new lease standard in 2018, we determined that the CRJ-200 fleet operated by our wholly-owned subsidiary, Endeavor, was impaired due to insufficient future cash flows projected for the fleet. Therefore, we recorded a transition adjustment that reduced equity by \$284 million (net of tax) as of January 1, 2018, which reflects the difference in fair value compared to the basis of the ROU asset.

Airport Facilities

Our facility leases are primarily for space at approximately 300 airports around the world that we serve. These leases are classified as operating leases and reflect our use of airport terminals, office space, cargo warehouses and maintenance facilities. We generally lease space from government agencies that control the use of the airport. The remaining lease terms vary from one month to 31 years. At the majority of the U.S. airports, the lease rates depend on airport operating costs or use of the facilities and are reset at least annually. Because of the variable nature of the rates, these leases are not recorded on our balance sheet as a ROU asset and lease liability.

Some airport facilities have fixed payment schedules, the most significant of which are New York-LaGuardia and New York-JFK. For those airport leases, we have recorded a ROU asset and lease liability representing the fixed component of the lease payment. See Note 9, "Airport Redevelopment," for more information on our significant airport redevelopment projects.

Other Ground Property and Equipment

We lease certain IT assets (including servers, mainframes, etc.), ground support equipment (including tugs, tractors, fuel trucks and de-icers), and various other equipment. The remaining lease terms range from one month to seven years. Certain leased IT assets are embedded within various service agreements. The lease components included in those agreements are included in the ROU asset and lease liability, and the amounts are not significant.

Lease Position

The table below presents the lease-related assets and liabilities recorded on the balance sheet.

| (in millions) | Classification on the Balance Sheet | December 31, | |
|---------------------------------------|---|--------------|----------|
| | | 2019 | 2018 |
| Assets | | | |
| Operating lease assets | Operating lease right-of-use assets | \$ 5,627 | \$ 5,994 |
| Finance lease assets | Property and equipment, net | 1,062 | 490 |
| Total lease assets | | \$ 6,689 | \$ 6,484 |
| | | | |
| Liabilities | | | |
| Current | | | |
| Operating | Current maturities of operating leases | \$ 801 | \$ 955 |
| Finance | Current maturities of debt and finance leases | 233 | 109 |
| Noncurrent | | | |
| Operating | Noncurrent operating leases | 5,294 | 5,801 |
| Finance | Debt and finance leases | 821 | 294 |
| Total lease liabilities | | \$ 7,149 | \$ 7,159 |
| | | | |
| Weighted-average remaining lease term | | | |
| Operating leases | | 12 years | 12 years |
| Finance leases | | 5 years | 7 years |
| Weighted-average discount rate | | | |
| Operating leases ⁽¹⁾ | | 3.73 % | 3.69 % |
| Finance leases | | 3.46 % | 5.23 % |

⁽¹⁾ Upon adoption of the new lease standard, discount rates used for existing leases were established at January 1, 2018.

Lease Costs

The table below presents certain information related to the lease costs for finance and operating leases.

| (in millions) | Year Ended December 31, | |
|--------------------------------------|-------------------------|----------|
| | 2019 | 2018 |
| Finance lease cost | | |
| Amortization of leased assets | \$ 110 | \$ 100 |
| Interest of lease liabilities | 29 | 22 |
| Operating lease cost ⁽¹⁾ | 1,013 | 994 |
| Short-term lease cost ⁽¹⁾ | 500 | 458 |
| Variable lease cost ⁽¹⁾ | 1,456 | 1,427 |
| Total lease cost | \$ 3,108 | \$ 3,001 |

⁽¹⁾ Expenses are classified within aircraft rent, landing fees and other rents and regional carriers expense, excluding fuel on the income statement. For the year ended December 31, 2019, \$174 million and \$64 million of the operating and variable lease costs, respectively, and for the year ended December 31, 2018, \$150 million, \$18 million and \$48 million of the operating, short-term and variable lease costs, respectively, are attributable to our regional carriers.

In 2017, operating lease expense, excluding landing fees, was approximately \$1.6 billion, which includes leases of certain aircraft under capacity purchase agreements. Expenses were primarily classified within aircraft rent, landing fees and other rents and regional carriers expense.

Other Information

The table below presents supplemental cash flow information related to leases.

| (in millions) | Year Ended December 31, | |
|--|-------------------------|----------|
| | 2019 | 2018 |
| Cash paid for amounts included in the measurement of lease liabilities | | |
| Operating cash flows for operating leases | \$ 1,166 | \$ 1,271 |
| Operating cash flows for finance leases | 27 | 22 |
| Financing cash flows for finance leases | 192 | 108 |

Undiscounted Cash Flows

The table below reconciles the undiscounted cash flows for each of the first five years and total of the remaining years to the finance lease liabilities and operating lease liabilities recorded on the balance sheet.

| (in millions) | Operating Leases | Finance Leases |
|--|------------------|----------------|
| 2020 | \$ 1,003 | \$ 264 |
| 2021 | 836 | 239 |
| 2022 | 729 | 174 |
| 2023 | 698 | 124 |
| 2024 | 628 | 180 |
| Thereafter | 3,821 | 179 |
| Total minimum lease payments | 7,715 | 1,160 |
| Less: amount of lease payments representing interest | (1,620) | (106) |
| Present value of future minimum lease payments | 6,095 | 1,054 |
| Less: current obligations under leases | (801) | (233) |
| Long-term lease obligations | \$ 5,294 | \$ 821 |

As of December 31, 2019, we had additional leases that had not yet commenced of \$888 million. These leases will commence in 2020 to 2024 with lease terms of 5 to 12 years.

NOTE 9. AIRPORT REDEVELOPMENT

New York-JFK Airport

In 2015, we completed two phases of redevelopment at New York-JFK's Terminal 4 to facilitate convenient connections for our passengers and improve coordination with our SkyTeam alliance partners. Terminal 4 is operated by JFK International Air Terminal LLC ("IAT"), a private party, under its lease with the Port Authority of New York and New Jersey ("Port Authority"). In December 2010, we entered into a 33-year agreement with IAT ("Sublease") to sublease space in Terminal 4. Also, in 2010, the Port Authority issued approximately \$800 million principal amount of special project bonds to fund the majority of the project.

We managed the project and bore the construction risk, including cost over-runs. Prior to 2018, we accounted for this project by recording an asset for project costs (e.g., design, permitting, labor and other general construction costs), regardless of funding source, and a construction obligation equal to project costs funded by parties other than us. Our rental payments reduced the construction obligation and resulted in the recording of interest expense, calculated using the effective interest method. Upon adoption of the new lease standard during 2018, the project cost asset and construction obligation were derecognized and we recorded a transition adjustment that increased equity by \$40 million (net of tax). Following derecognition of these assets and liabilities, we recognized a ROU asset and lease liability representing the fixed component of the lease payments.

We have an equity method investment in JFK IAT Member LLC, which owns IAT, our sublessor at Terminal 4. The Sublease requires us to pay certain fixed management fees. We determined the investment is a variable interest entity and assessed whether we have a controlling financial interest in IAT. Our rights under the Sublease, with respect to management of Terminal 4, are consistent with rights granted to an anchor tenant under a standard airport lease. Accordingly, we do not consolidate this entity in our Consolidated Financial Statements.

We are now planning for further expansion of Terminal 4. Subject to approval of the Board of the Port Authority, IAT and the Port Authority will finalize and enter a lease amendment for the expansion and renovation of the Terminal 4 arrivals and departures hall, the addition of 16 new gates to Concourse A, the renovation of existing concourses and roadway upgrades to improve access for vehicles.

Los Angeles International Airport ("LAX")

We executed a modified lease agreement during 2016 with the City of Los Angeles ("the City") which owns and operates LAX, and announced plans to modernize, upgrade and connect Terminals 2 and 3 at LAX. Under the lease agreement, we have relocated certain airlines and other tenants from Terminals 2 and 3 to Terminals 5 and 6 and undertaken various initial projects to enable operations from Terminals 2 and 3 during the project. We are now designing and constructing the redevelopment of Terminal 3 and enhancement of Terminal 2, which also includes rebuilding the ticketing and arrival halls and security checkpoint, construction of core infrastructure to support the City's planned airport people mover, ramp improvements and construction of a secure connector to the north side of the Tom Bradley International Terminal. Construction is expected to be completed by 2024.

Under the lease agreement and subsequent project component approvals by the City's Board of Airport Commissioners, the City has appropriated to date approximately \$1.6 billion to purchase completed project assets. The lease allows for a maximum reimbursement by the City of \$1.8 billion. Costs we incur in excess of such maximum will not be reimbursed by the City.

A substantial majority of the project costs are being funded through the Regional Airports Improvement Corporation ("RAIC"), a California public benefit corporation, using an \$800 million revolving credit facility provided by a group of lenders. The credit facility was executed during 2017 and amended in 2019 and we have guaranteed the obligations of the RAIC under the credit facility. Loans made under the credit facility are being repaid with the proceeds from the City's purchase of completed project assets. Using funding provided by cash flows from operations and/or the credit facility, we spent approximately \$176 million on this project during 2019.

Based on our assessment of the project, we concluded that we do not control the underlying assets being constructed, and therefore, we do not have the project asset or related obligation recorded on our balance sheet.

New York-LaGuardia Airport

As part of the terminal redevelopment project at LaGuardia Airport, we are partnering with the Port Authority to replace Terminals C and D with a new state-of-the-art terminal facility consisting of 37 gates across four concourses connected to a central headhouse. The terminal will feature a new, larger Delta Sky Club, wider concourses, more gate seating and 30 percent more concessions space than the existing terminals. The facility will also offer direct access between the parking garage and terminal and improved roadways and drop-off/pick-up areas. The design of the new terminal will integrate sustainable technologies and improvements in energy efficiency. Construction will be phased to limit passenger inconvenience and is expected to be completed by 2026.

In connection with the redevelopment, during 2017, we entered into an amended and restated terminal lease with the Port Authority with a term through 2050. Pursuant to the lease agreement we will (1) fund (through debt issuance and existing cash) and undertake the design, management and construction of the terminal and certain off-premises supporting facilities, (2) receive a Port Authority contribution of \$600 million to facilitate construction of the terminal and other supporting infrastructure, (3) be responsible for all operations and maintenance during the term of the lease and (4) have preferential rights to all gates in the terminal subject to Port Authority requirements with respect to accommodation of designated carriers. We currently expect our net project cost to be approximately \$3.3 billion and we bear the risks of project construction, including any potential cost over-runs. Using funding provided by cash flows from operations and/or financing arrangements, we spent approximately \$562 million on this project during 2019. See Note 7, "Debt," for additional information on the debt related to this redevelopment project, NYTDC Special Facilities Revenue Bonds, Series 2018.

As we are funding the majority of the LaGuardia redevelopment project, we account for the related assets as leasehold improvements. We entered into loan agreements to fund a portion of the construction, which are recorded on our balance sheet as debt with the proceeds reflected as restricted cash.

NOTE 10. EMPLOYEE BENEFIT PLANS

We sponsor defined benefit and defined contribution pension plans, healthcare plans and disability and survivorship plans for eligible employees and retirees and their eligible family members.

Defined Benefit Pension Plans. We sponsor defined benefit pension plans for eligible employees and retirees. These plans are closed to new entrants and frozen for future benefit accruals. The Pension Protection Act of 2006 allows commercial airlines to elect alternative funding rules ("Alternative Funding Rules") for defined benefit plans that are frozen. We elected the Alternative Funding Rules under which the unfunded liability for a frozen defined benefit plan may be amortized over a fixed 17-year period and is calculated using an 8.85% discount rate until the 17-year period expires for all frozen defined benefit plans by the end of 2024. We have no minimum funding requirements in 2020, but we plan to voluntarily contribute approximately \$500 million to these plans.

Defined Contribution Pension Plans. We sponsor several defined contribution plans. These plans generally cover different employee groups and employer contributions vary by plan. The costs associated with our defined contribution pension plans were \$991 million, \$926 million and \$875 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Postretirement Healthcare Plans. We sponsor healthcare plans that provide benefits to eligible retirees and their dependents who are under age 65. We have generally eliminated company-paid post age 65 healthcare coverage, except for (1) subsidies available to a limited group of retirees and their dependents and (2) a group of retirees who retired prior to 1987. Benefits under these plans are funded from current assets and employee contributions. During 2018, we remeasured our postretirement obligation to reflect a curtailment of our postretirement healthcare plans.

Postemployment Plans. We provide certain other welfare benefits to eligible former or inactive employees after employment but before retirement, primarily as part of the disability and survivorship plans. Substantially all employees are eligible for benefits under these plans in the event of death and/or disability.

Benefit Obligations, Fair Value of Plan Assets and Funded Status

| (in millions) | Pension Benefits December 31, | | Other Postretirement and Postemployment Benefits December 31, | |
|--|----------------------------------|------------|---|------------|
| | 2019 | 2018 | 2019 | 2018 |
| Benefit obligation at beginning of period | \$ 19,809 | \$ 21,696 | \$ 3,225 | \$ 3,504 |
| Service cost | — | — | 83 | 85 |
| Interest cost | 833 | 781 | 137 | 126 |
| Actuarial loss (gain) | 1,678 | (1,560) | 226 | (142) |
| Benefits paid, including lump sums and annuities | (1,107) | (1,093) | (315) | (306) |
| Participant contributions | — | — | 23 | 26 |
| Curtailment | — | — | — | (68) |
| Settlements | (14) | (15) | — | — |
| Benefit obligation at end of period ⁽¹⁾ | \$ 21,199 | \$ 19,809 | \$ 3,379 | \$ 3,225 |
| Fair value of plan assets at beginning of period | \$ 13,459 | \$ 14,744 | \$ 637 | \$ 866 |
| Actual gain (loss) on plan assets | 2,485 | (700) | 134 | (72) |
| Employer contributions | 1,022 | 523 | 159 | 152 |
| Participant contributions | — | — | 23 | 26 |
| Benefits paid, including lump sums and annuities | (1,107) | (1,093) | (346) | (335) |
| Settlements | (14) | (15) | — | — |
| Fair value of plan assets at end of period | \$ 15,845 | \$ 13,459 | \$ 607 | \$ 637 |
| Funded status at end of period | \$ (5,354) | \$ (6,350) | \$ (2,772) | \$ (2,588) |

⁽¹⁾ At the end of each year presented, our accumulated benefit obligations for our pension plans are equal to the benefit obligations shown above.

During 2019, net actuarial losses increased our benefit obligation due to the decrease in discount rates, while in 2018 our obligations decreased due to the actuarial gains from an increase in discount rates. These gains and losses are recorded in AOCI and reflected in the table below.

A net actuarial loss of \$333 million will be amortized from AOCI into net periodic benefit cost in 2020. Amounts are generally amortized from AOCI over the expected future lifetime of plan participants.

Balance Sheet Position

| (in millions) | Pension Benefits December 31, | | Other Postretirement and Postemployment Benefits December 31, | |
|---|----------------------------------|------------|---|------------|
| | 2019 | 2018 | 2019 | 2018 |
| Current liabilities | \$ (19) | \$ (27) | \$ (125) | \$ (123) |
| Noncurrent liabilities | (5,335) | (6,323) | (2,647) | (2,465) |
| Total liabilities | \$ (5,354) | \$ (6,350) | \$ (2,772) | \$ (2,588) |
| Net actuarial loss | \$ (8,765) | \$ (8,682) | \$ (715) | \$ (613) |
| Prior service credit | — | — | 38 | 47 |
| Total accumulated other comprehensive loss, pre-tax | \$ (8,765) | \$ (8,682) | \$ (677) | \$ (566) |

Net Periodic (Benefit) Cost

| (in millions) | Pension Benefits Year Ended December 31, | | | Other Postretirement and Postemployment Benefits Year Ended December 31, | | |
|--------------------------------------|---|----------|---------|--|--------|--------|
| | 2019 | 2018 | 2017 | 2019 | 2018 | 2017 |
| Service cost | \$ — | \$ — | \$ — | \$ 83 | \$ 85 | \$ 87 |
| Interest cost | 833 | 781 | 853 | 137 | 126 | 138 |
| Expected return on plan assets | (1,186) | (1,318) | (1,143) | (47) | (67) | (69) |
| Amortization of prior service credit | — | — | — | (9) | (24) | (26) |
| Recognized net actuarial loss | 291 | 267 | 262 | 37 | 36 | 32 |
| Settlements | 5 | 4 | 3 | — | — | — |
| Curtailment | — | — | — | — | (53) | — |
| Net periodic (benefit) cost | \$ (57) | \$ (266) | \$ (25) | \$ 201 | \$ 103 | \$ 162 |

Service cost is recorded in salaries and related costs in the income statement while other components are recorded within miscellaneous under non-operating expense.

Assumptions

We used the following actuarial assumptions to determine our benefit obligations and our net periodic benefit cost for the periods presented:

| Benefit Obligations ⁽¹⁾ | December 31, | |
|------------------------------------|--------------|--------|
| | 2019 | 2018 |
| Weighted average discount rate | 3.40 % | 4.33 % |

| Net Periodic Benefit Cost ⁽¹⁾ | Year Ended December 31, | | |
|---|-------------------------|--------|--------|
| | 2019 | 2018 | 2017 |
| Weighted average discount rate - pension benefit | 4.33 % | 3.69 % | 4.14 % |
| Weighted average discount rate - other postretirement benefit | 4.32 % | 3.69 % | 4.19 % |
| Weighted average discount rate - other postemployment benefit | 4.32 % | 3.65 % | 4.14 % |
| Weighted average expected long-term rate of return on plan assets | 8.97 % | 8.97 % | 8.96 % |
| Assumed healthcare cost trend rate for the next year ⁽²⁾ | 6.50 % | 6.75 % | 7.00 % |

⁽¹⁾ Future employee compensation levels do not impact our frozen defined benefit pension plans or other postretirement plans and impact only a small portion of our other postemployment obligation.

⁽²⁾ Healthcare cost trend rate is assumed to decline gradually to 5.00% by 2026 and remain unchanged thereafter.

Expected Long-Term Rate of Return. Our expected long-term rate of return on plan assets is based primarily on plan-specific investment studies using historical market return and volatility data. Modest excess return expectations versus some public market indices are incorporated into the return projections based on the actively managed structure of the investment programs and their records of achieving such returns historically. We also expect to receive a premium for investing in less liquid private markets. We review our rate of return on plan assets assumptions annually. Our annual investment performance for one particular year does not, by itself, significantly influence our evaluation. The investment strategy for our defined benefit pension plan assets is to earn a long-term return that meets or exceeds our annualized return target while taking an acceptable level of risk and maintaining sufficient liquidity to pay current benefits and other cash obligations of the plan. This is achieved by investing in a globally diversified mix of public and private equity, fixed income, real assets, hedge funds and other assets and instruments. Our weighted average expected long-term rate of return on assets for net periodic benefit cost for the year ended December 31, 2019 was 8.97%.

Healthcare Cost Trend Rate. Assumed healthcare cost trend rates have an effect on the amounts reported for the other postretirement benefit plans. A 1% change in the healthcare cost trend rate used in measuring the plan benefit obligation for these plans would have the following effects:

| (in millions) | 1% Increase | 1% (Decrease) |
|--|-------------|---------------|
| Increase (decrease) in total service and interest cost | \$ 1 | \$ (2) |
| Increase (decrease) in the accumulated plan benefit obligation | 4 | (14) |

Life Expectancy. Changes in life expectancy may significantly impact our benefit obligations and future net periodic benefit cost. We use the Society of Actuaries ("SOA") published mortality data and other publicly available information to develop our best estimate of life expectancy. The SOA publishes updated mortality tables for U.S. plans and updated improvement scales. Each year we consider updates by the SOA in setting our mortality assumptions for purposes of measuring pension and other postretirement and postemployment benefit obligations.

Benefit Payments

Benefit payments in the table below are based on the same assumptions used to measure the related benefit obligations. Actual benefit payments may vary significantly from these estimates. Benefits earned under our pension plans and certain postemployment benefit plans are expected to be paid from funded benefit plan trusts, while our other postretirement benefits are funded from current assets.

The following table summarizes the benefit payments that are scheduled to be paid in the years ending December 31:

| (in millions) | Pension Benefits | Other Postretirement and Postemployment Benefits |
|---------------|------------------|--|
| 2020 | \$ 1,170 | \$ 324 |
| 2021 | 1,188 | 327 |
| 2022 | 1,211 | 324 |
| 2023 | 1,226 | 321 |
| 2024 | 1,239 | 317 |
| 2025-2029 | 6,248 | 1,520 |

Plan Assets

We have adopted and implemented investment policies for our defined benefit pension plans that incorporate strategic asset allocation mixes intended to best meet the plans' long-term obligations, while maintaining an appropriate level of risk and liquidity. These asset portfolios employ a diversified mix of investments, which are reviewed periodically. Active management strategies are utilized where feasible in an effort to realize investment returns in excess of market indices. Derivatives in the plans are primarily used to manage risk and gain asset class exposure while still maintaining liquidity. As part of these strategies, the plans are required to hold cash collateral associated with certain derivatives. Our investment strategies target a mix of 30-50% growth-seeking assets, 25-35% income-generating assets and 30-40% risk-diversifying assets. Risk diversifying assets include hedged mandates implementing long-short, market neutral and relative value strategies that invest primarily in publicly-traded equity, fixed income, foreign currency and commodity securities and are used to improve the impact of active management on the plans.

Benefit Plan Assets Measured at Fair Value on a Recurring Basis

Benefit Plan Assets. Benefit plan assets relate to our defined benefit pension plans and certain of our postemployment benefit plans. These investments are presented net of the related benefit obligation in pension, postretirement and related benefits on the balance sheets. See Note 3, "Fair Value," for a description of the levels within the fair value hierarchy and associated valuation techniques used to measure fair value. The following table shows our benefit plan assets by asset class.

| (in millions) | December 31, 2019 | | | December 31, 2018 | | | Valuation Technique |
|--|-------------------|----------|-----------|-------------------|----------|-----------|---------------------|
| | Level 1 | Level 2 | Total | Level 1 | Level 2 | Total | |
| Equities and equity-related instruments | \$ 840 | \$ 49 | \$ 889 | \$ 400 | \$ 100 | \$ 500 | (a) |
| Delta common stock | 737 | — | 737 | 675 | — | 675 | (a) |
| Cash equivalents | 327 | 952 | 1,279 | 312 | 708 | 1,020 | (a) |
| Fixed income and fixed income-related instruments | 97 | 3,472 | 3,569 | 233 | 2,157 | 2,390 | (a)(b) |
| Benefit plan assets | \$ 2,001 | \$ 4,473 | \$ 6,474 | \$ 1,620 | \$ 2,965 | \$ 4,585 | |
| Investments measured at net asset value ("NAV") ⁽¹⁾ | | | 9,854 | | | 9,136 | |
| Total benefit plan assets | | | \$ 16,328 | | | \$ 13,721 | |

⁽¹⁾ Investments that were measured at NAV per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy.

Equities and Equity-Related Instruments. These investments include common stock and equity-related instruments. Common stock is valued at the closing price reported on the active market on which the individual securities are traded. Equity-related instruments include investments in securities traded on exchanges, including listed futures and options, which are valued at the last reported sale prices on the last business day of the year or, if not available, the last reported bid prices. Over-the-counter securities are valued at the bid prices or the average of the bid and ask prices on the last business day of the year from published sources or, if not available, from other sources considered reliable, generally broker quotes.

Delta Common Stock. In both 2017 and 2016, we contributed \$350 million of Delta common stock as a portion of the employer contribution to certain of our defined benefit pension plans. The Delta common stock investment is managed by an independent fiduciary.

Cash Equivalents. These investments primarily consist of high-quality, short-term obligations that are a part of institutional money market mutual funds that are valued using current market quotations or an appropriate substitute that reflects current market conditions.

Fixed Income and Fixed Income-Related Instruments. These investments include corporate bonds, government bonds, collateralized mortgage obligations and other asset-backed securities, and are generally valued at the bid price or the average of the bid and ask price. Prices are based on pricing models, quoted prices of securities with similar characteristics or broker quotes. Fixed income-related instruments include investments in securities traded on exchanges, including listed futures and options, which are valued at the last reported sale prices on the last business day of the year, or if not available, the last reported bid prices. Over-the-counter securities are valued at the bid prices or the average of the bid and ask prices on the last business day of the year from published sources or, if not available, from other sources considered reliable, generally broker quotes.

The following table summarizes investments measured at fair value based on NAV per share as a practical expedient:

| (in millions) | December 31, 2019 | | | December 31, 2018 | | |
|--|-------------------|----------------------|--------------------------|-------------------|----------------------|--------------------------|
| | Fair Value | Redemption Frequency | Redemption Notice Period | Fair Value | Redemption Frequency | Redemption Notice Period |
| Hedge funds and hedge fund-related strategies ⁽⁵⁾ | \$ 5,588 | (4) | 2-180 Days | \$ 5,264 | (4) | 2-180 Days |
| Commingled funds, private equity and private equity-related instruments ⁽⁵⁾ | 1,834 | (4) | 2-30 Days | 1,591 | (4) | 2-30 Days |
| Fixed income and fixed income-related instruments ⁽⁵⁾ | 958 | (4) | 15-90 Days | 769 | (2) | 15-90 Days |
| Real assets ⁽⁵⁾ | 758 | (3) | N/A | 807 | (3) | N/A |
| Other | 716 | (1) (2) | 2-90 Days | 705 | (1) (2) | 2-90 Days |
| Total investments measured at NAV | \$ 9,854 | | | \$ 9,136 | | |

- (1) Monthly
(2) Semi-monthly
(3) Semi-annually and annually
(4) Various. Includes funds with weekly, monthly, semi-monthly, quarterly and custom redemption frequencies as well as funds with a redemption window following the anniversary of the initial investment.
(5) Unfunded commitments were \$393 million for commingled funds, private equity and private equity-related instruments, \$254 million for fixed income and fixed income-related instruments, \$203 million for real assets and \$76 million for hedge funds and hedge fund-related strategies at December 31, 2019.

Hedge Funds and Hedge Fund-Related Strategies. These investments are primarily made through shares of limited partnerships or similar structures for which a liquid secondary market does not exist. Investments in these strategies are typically valued monthly by third-party administrators or valuation agents with an annual audit performed by an independent third party.

Commingled Funds, Private Equity and Private Equity-Related Instruments. These investments include commingled funds invested in common stock, as well as private equity and private equity-related instruments. Commingled funds are valued based on quoted market prices of the underlying assets owned by the fund. Private equity and private equity-related strategies are typically valued quarterly by the fund managers using valuation models where one or more of the significant inputs into the model cannot be observed and which require the development of assumptions. There is an annual audit performed by an independent third party.

Fixed Income and Fixed Income-Related Instruments. These investments include commingled funds invested in debt obligations. Commingled funds are valued based on quoted market prices of the underlying assets owned by the fund. Private fixed income strategies are typically valued monthly or quarterly by the fund managers or third-party valuation agents using valuation models where one or more of significant inputs into the model cannot be observed and which require the development of assumptions. There is an annual audit performed by an independent third party.

Real Assets. These investments include real estate, energy, timberland, agriculture and infrastructure. The valuation of real assets requires significant judgment due to the absence of quoted market prices as well as the inherent lack of liquidity and the long-term nature of these assets. Real assets are typically valued quarterly by the fund managers using valuation models where one or more of the significant inputs into the model cannot be observed and which require the development of assumptions. There is an annual audit performed by an independent third party.

Other. Primarily includes globally-diversified, risk-managed commingled funds consisting mainly of equity, fixed income and commodity exposures. Investments in these strategies are typically valued monthly by third-party administrators or valuation agents with an annual audit performed by an independent third party.

On an annual basis we assess the potential for adjustments to the fair value of all investments. Certain of our investments valued using NAV as a practical expedient have a lag in the availability of data. This primarily applies to private equity, private equity-related strategies and real assets. We solicit valuation updates from the investment fund managers and use their information and corroborating data from public markets to determine any needed fair value adjustments.

Other

We also sponsor defined benefit pension plans for eligible employees in certain foreign countries. These plans did not have a material impact on our Consolidated Financial Statements in any period presented.

Profit Sharing Program

Our broad-based employee profit sharing program provides that, for each year in which we have an annual pre-tax profit, as defined by the terms of the program, we will pay a specified portion of that profit to employees. In determining the amount of profit sharing, the program defines profit as pre-tax profit adjusted for profit sharing and certain other items. For the years ended December 31, 2019, 2018 and 2017, we recorded expenses of \$1.6 billion, \$1.3 billion and \$1.1 billion under the profit sharing program, respectively.

Effective October 1, 2017, we aligned our profit sharing plans under a single formula. Under this formula, our profit sharing program pays 10% to all eligible employees for the first \$2.5 billion of annual profit and 20% of annual profit above \$2.5 billion. Prior to that time, the profit sharing program for pilots used this formula but in the first nine months of 2017, the profit sharing program for merit, ground and flight attendant employees paid 10% of annual profit and, if we exceeded our prior-year results, the program paid 20% of the year-over-year increase in profit to eligible employees.

NOTE 11. COMMITMENTS AND CONTINGENCIES

Aircraft Purchase Commitments

Our future aircraft purchase commitments totaled approximately \$13.7 billion at December 31, 2019:

| (in millions) | Total |
|----------------------|------------------|
| 2020 | \$ 2,980 |
| 2021 | 3,740 |
| 2022 | 3,390 |
| 2023 | 1,640 |
| 2024 | 500 |
| Thereafter | 1,440 |
| Total | \$ 13,690 |

Our future aircraft purchase commitments included the following aircraft at December 31, 2019:

| Aircraft Type | Purchase Commitments |
|----------------------------|-----------------------------|
| A220-100 | 17 |
| A220-300 | 50 |
| A321-200 | 31 |
| A321-200neo | 100 |
| A330-900neo ⁽¹⁾ | 33 |
| A350-900 | 16 |
| CRJ-900 | 6 |
| Total | 253 |

⁽¹⁾ Includes two A330-900neo lease commitments with one in each of 2020 and 2021.

MD-90 Fleet Retirement

As part of our ongoing fleet transformation, during 2019 we committed to accelerating the retirement of our MD-90 fleet. This fleet will now be retired by the end of 2022, which is approximately two years earlier than previously planned. The decision to retire the fleet by 2022, including the permanent retirement of 35 aircraft during 2019, resulted in accelerated depreciation of \$79 million during 2019, which is recorded in depreciation and amortization in our income statement.

LATAM A350 Commitments

We have agreed to acquire four A350 aircraft from LATAM, which are included as purchase commitments in the table above. In addition, we plan to assume ten of LATAM's A350 purchase commitments from Airbus, with deliveries through 2025. See Note 4, "Investments," for further information on our investment in LATAM.

Contract Carrier Agreements

We have contract carrier agreements with regional carriers expiring from 2020 to 2029.

Capacity Purchase Agreements. Most of our contract carriers operate for us under capacity purchase agreements. Under these agreements, the contract carriers operate some or all of their aircraft using our flight designator codes, and we control the scheduling, pricing, reservations, ticketing and seat inventories of those aircraft and retain the revenues associated with those flights. We pay those airlines an amount, as defined in the applicable agreement, which is based on a determination of their cost of operating those flights and other factors intended to approximate market rates for those services.

The following table shows our minimum fixed obligations under our existing capacity purchase agreements with third-party regional carriers. The obligations set forth in the table contemplate minimum levels of flying by the contract carriers under the respective agreements and also reflect assumptions regarding certain costs associated with the minimum levels of flying such as the cost of fuel, labor, maintenance, insurance, catering, property tax and landing fees. Accordingly, our actual payments under these agreements could differ materially from the minimum fixed obligations set forth in the table below.

| (in millions) | Amount ⁽¹⁾⁽²⁾ |
|----------------------|---------------------------------|
| 2020 | \$ 1,750 |
| 2021 | 1,432 |
| 2022 | 1,377 |
| 2023 | 1,132 |
| 2024 | 1,002 |
| Thereafter | 2,349 |
| Total | \$ 9,042 |

⁽¹⁾ These amounts exclude contract carrier payments accounted for as operating leases of aircraft, which are described in Note 8, "Leases."

⁽²⁾ In January 2020, we agreed not to renew our CRJ-900 contract with GoJet Airlines, LLC and to end those operations by the end of 2020. The table above reflects our commitments under that contract as of December 31, 2019.

Revenue Proration Agreement. As of December 31, 2019, a portion of our contract carrier agreement with SkyWest Airlines, Inc. was structured as a revenue proration agreement. This revenue proration agreement establishes a fixed dollar or percentage division of revenues for tickets sold to passengers traveling on connecting flight itineraries.

Legal Contingencies

We are involved in various legal proceedings related to employment practices, environmental issues, antitrust matters and other matters concerning our business. We record liabilities for losses from legal proceedings when we determine that it is probable that the outcome in a legal proceeding will be unfavorable and the amount of loss can be reasonably estimated. Although the outcome of the legal proceedings in which we are involved cannot be predicted with certainty, we believe that the resolution of current matters will not have a material adverse effect on our Consolidated Financial Statements.

Credit Card Processing Agreements

Our VISA/MasterCard and American Express credit card processing agreements provide that no cash reserve ("Reserve") is required, and no withholding of payment related to receivables collected will occur, except in certain circumstances, including when we do not maintain a required level of liquidity as outlined in the merchant processing agreements. In circumstances in which the credit card processor can establish a Reserve or withhold payments, the amount of the Reserve or payments that may be withheld would be equal to the potential liability of the credit card processor for tickets purchased with VISA/MasterCard or American Express credit cards, as applicable, that had not yet been used for travel. We did not have a Reserve or an amount withheld as of December 31, 2019 or 2018.

Other Contingencies

General Indemnifications

We are the lessee under many commercial real estate leases. It is common in these transactions for us, as the lessee, to agree to indemnify the lessor and the lessor's related parties for tort, environmental and other liabilities that arise out of or relate to our use or occupancy of the leased premises. This type of indemnity would typically make us responsible to indemnified parties for liabilities arising out of the conduct of, among others, contractors, licensees and invitees at, or in connection with, the use or occupancy of the leased premises. This indemnity often extends to related liabilities arising from the negligence of the indemnified parties, but usually excludes any liabilities caused by either their sole or gross negligence or their willful misconduct.

Our aircraft and other equipment lease and financing agreements typically contain provisions requiring us, as the lessee or obligor, to indemnify the other parties to those agreements, including certain of those parties' related persons, against virtually any liabilities that might arise from the use or operation of the aircraft or other equipment.

We believe that our insurance would cover most of our exposure to liabilities and related indemnities associated with the commercial real estate leases and aircraft and other equipment lease and financing agreements described above. While our insurance does not typically cover environmental liabilities, we have insurance policies in place as required by applicable environmental laws.

Some of our aircraft and other financing transactions include provisions that require us to make payments to preserve an expected economic return to the lenders if that economic return is diminished due to specified changes in law or regulations. In some of these financing transactions, we also bear the risk of changes in tax laws that would subject payments to non-U.S. lenders to withholding taxes.

We cannot reasonably estimate our potential future payments under the indemnities and related provisions described above because we cannot predict (1) when and under what circumstances these provisions may be triggered and (2) the amount that would be payable if the provisions were triggered because the amounts would be based on facts and circumstances existing at such time.

Employees Under Collective Bargaining Agreements

As of December 31, 2019, we had approximately 91,000 full-time equivalent employees, approximately 19% of whom were represented by unions. The following table shows our domestic airline employee groups that are represented by unions.

| Employee Group | Approximate Number of Active Employees Represented | Union | Date on which Collective Bargaining Agreement Becomes Amendable |
|--|--|-------|---|
| Delta Pilots | 13,082 | ALPA | December 31, 2019 |
| Delta Flight Superintendents (Dispatchers) | 443 | PAFCA | November 1, 2024 |
| Endeavor Air Pilots | 1,872 | ALPA | January 1, 2024 |
| Endeavor Air Flight Attendants | 1,492 | AFA | December 31, 2018 |

We are in discussions with representatives of our pilots and Endeavor Air flight attendants regarding terms of amendable collective bargaining agreements.

In addition to the domestic airline employee groups discussed above, 199 refinery employees of Monroe are represented by the United Steel Workers under an agreement that expires on February 28, 2022. This agreement is governed by the National Labor Relations Act, which generally allows either party to engage in self help upon the expiration of the agreement.

Other

We have certain contracts for goods and services that require us to pay a penalty, acquire inventory specific to us or purchase contract-specific equipment, as defined by each respective contract, if we terminate the contract without cause prior to its expiration date. Because these obligations are contingent on our termination of the contract without cause prior to its expiration date, no obligation would exist unless such a termination occurs.

NOTE 12. INCOME TAXES

Income Tax Provision

Our income tax provision consisted of the following:

| (in millions) | Year Ended December 31, | | |
|----------------------------------|-------------------------|------------|------------|
| | 2019 | 2018 | 2017 |
| Current tax benefit (provision): | | | |
| Federal | \$ 94 | \$ 187 | \$ (4) |
| State and local | (39) | (26) | 5 |
| International | (13) | (13) | (54) |
| Deferred tax provision: | | | |
| Federal | (1,343) | (1,226) | (2,093) |
| State and local | (130) | (138) | (149) |
| Income tax provision | \$ (1,431) | \$ (1,216) | \$ (2,295) |

The following table presents the principal reasons for the difference between the effective tax rate and the U.S. federal statutory income tax rate:

| | Year Ended December 31, | | |
|--|-------------------------|--------|--------|
| | 2019 | 2018 | 2017 |
| U.S. federal statutory income tax rate | 21.0 % | 21.0 % | 35.0 % |
| State taxes, net of federal benefit | 2.3 | 2.5 | 1.8 |
| Foreign tax rate differential | — | 0.1 | (2.2) |
| Tax Cuts and Jobs Act adjustment | — | (0.5) | 7.2 |
| Other | (0.2) | 0.5 | — |
| Effective income tax rate | 23.1 % | 23.6 % | 41.8 % |

Following the enactment of the Tax Cuts and Jobs Act of 2017 ("2017 tax reform"), we recorded a provisional tax expense estimate of \$395 million resulting in a 7.2% increase in our effective tax rate during 2017. The provisional estimate included recognition of tax expense related to certain of our undistributed foreign earnings and tax expense to decrease our federal net deferred tax asset to a 21% statutory tax rate. During 2018 we recognized a \$26 million benefit resulting in a 0.5% reduction to our 2018 effective tax rate after finalizing the impact of the 2017 tax reform.

At December 31, 2019, we had a basis difference in our investments in foreign subsidiaries of \$212 million which is considered to be indefinitely reinvested.

Deferred Taxes

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting and income tax purposes. The following table shows significant components of our deferred tax assets and liabilities:

| (in millions) | December 31, | |
|--|--------------|----------|
| | 2019 | 2018 |
| Deferred tax assets: | | |
| Net operating loss carryforwards | \$ 560 | \$ 674 |
| Pension, postretirement and other benefits | 2,241 | 2,435 |
| Alternative minimum tax credit carryforward | 94 | 189 |
| Deferred revenue | 1,667 | 1,620 |
| Operating lease liabilities | 1,446 | 1,579 |
| Other | 350 | 357 |
| Valuation allowance | (58) | (13) |
| Total deferred tax assets | \$ 6,300 | \$ 6,841 |
| Deferred tax liabilities: | | |
| Depreciation | \$ 5,190 | \$ 4,185 |
| Operating lease right-of-use assets | 1,298 | 1,388 |
| Intangible assets | 1,049 | 1,052 |
| Other | 99 | 137 |
| Total deferred tax liabilities | \$ 7,636 | \$ 6,762 |
| Net deferred tax (liabilities) assets ⁽¹⁾ | \$ (1,336) | \$ 79 |

⁽¹⁾ At December 31, 2019, the net deferred tax liabilities of \$1.3 billion included \$120 million of net state deferred tax assets, which are recorded in other noncurrent assets, and \$1.5 billion of net federal deferred tax liabilities, which are recorded in deferred income taxes, net. At December 31, 2018, the net deferred tax assets of \$79 million included \$242 million of net state deferred tax assets, which are recorded in other noncurrent assets, and \$163 million of net federal deferred tax liabilities, which are recorded in deferred income taxes, net.

At December 31, 2019, we had \$94 million of federal alternative minimum tax credit carryforwards. As a result of the Tax Cuts and Jobs Act of 2017, this credit becomes refundable to us if not used by 2021. We have \$1.9 billion of federal pre-tax net operating loss carryforwards, which will not begin to expire until 2027.

Income Tax Allocation

We consider all income sources, including other comprehensive income, in determining the amount of tax benefit allocated to continuing operations ("Income Tax Allocation"). The 2017 tax reform reduced the statutory tax rate in the U.S. from 35% to 21%. GAAP requires that the tax expense related to tax law changes be recognized in current earnings, even when a portion of the related deferred tax asset originated through amounts recognized in AOCI. As a result, \$672 million of income tax expense remains in AOCI, primarily related to pension obligations, and will not be recognized in net income until the pension obligations are fully extinguished.

Other

The amount of, and changes to, our uncertain tax positions were not material in any of the years presented. We are currently under audit by the IRS for the 2019, 2018 and 2017 tax years.

NOTE 13. EQUITY AND EQUITY COMPENSATION

Equity

We are authorized to issue 2.0 billion shares of capital stock, of which up to 1.5 billion may be shares of common stock, par value \$0.0001 per share, and up to 500 million may be shares of preferred stock.

Preferred Stock. We may issue preferred stock in one or more series. The Board of Directors is authorized (1) to fix the descriptions, powers (including voting powers), preferences, rights, qualifications, limitations and restrictions with respect to any series of preferred stock and (2) to specify the number of shares of any series of preferred stock. We have not issued any preferred stock.

Treasury Stock. We generally withhold shares of Delta common stock to cover employees' portion of required tax withholdings when employee equity awards are issued or vest. These shares are valued at cost, which equals the market price of the common stock on the date of issuance or vesting. The weighted average cost per share held in treasury was \$26.37 and \$24.14 as of December 31, 2019 and 2018, respectively.

Equity Compensation

Our broad-based equity and cash compensation plan provides for grants of restricted stock, stock options, performance awards, including cash incentive awards and other equity-based awards (the "Plan"). Shares of common stock issued under the Plan may be made available from authorized, but unissued, common stock or common stock we acquire. If any shares of our common stock are covered by an award that expires, is canceled, forfeited or otherwise terminates without delivery of shares (including shares surrendered or withheld for payment of taxes related to an award), such shares will again be available for issuance under the Plan except for (i) any shares tendered in payment of an option, (ii) shares withheld to satisfy any tax withholding obligation with respect to the exercise of an option or stock appreciation right ("SAR") or (iii) shares covered by a stock-settled SAR or other awards that were not issued upon the settlement of the award. The Plan authorizes the issuance of up to 163 million shares of common stock. As of December 31, 2019, there were 25 million shares available for future grants.

We make long-term incentive awards annually to eligible employees under the Plan. Generally, awards vest over time, subject to the employee's continued employment. Equity compensation expense, including awards payable in common stock or cash, is recognized in salaries and related costs over the employee's requisite service period (generally, the vesting period of the award) and totaled \$161 million, \$159 million and \$169 million for the years ended December 31, 2019, 2018 and 2017, respectively. We record expense on a straight-line basis for awards with installment vesting. As of December 31, 2019, unrecognized costs related to unvested shares and stock options totaled \$94 million. We expect substantially all unvested awards to vest and recognize forfeitures as they occur.

Restricted Stock. Restricted stock is common stock that may not be sold or otherwise transferred for a period of time and is subject to forfeiture in certain circumstances. The fair value of restricted stock awards is based on the closing price of the common stock on the grant date. As of December 31, 2019, there were 2.6 million unvested restricted stock awards.

Stock Options. Stock options are granted with an exercise price equal to the closing price of Delta common stock on the grant date and generally have a 10-year term. We determine the fair value of stock options at the grant date using an option pricing model. As of December 31, 2019, there were 3.9 million outstanding stock option awards with a weighted average exercise price of \$49.57 of which 1.4 million were exercisable.

Performance Awards. Performance awards are long-term incentive opportunities, which are payable in common stock or cash, and are generally contingent upon our achieving certain financial goals.

Other. During 2019 and 2018, we recognized \$1 million and \$7 million, respectively, of excess tax benefits in our income tax provision.

NOTE 14. ACCUMULATED OTHER COMPREHENSIVE LOSS

The following table shows the components of accumulated other comprehensive loss:

| (in millions) | Pension and Other Benefits Liabilities ⁽²⁾ | Derivative Contracts and Other | Available-for-Sale Investments ⁽³⁾ | Total |
|--|---|--------------------------------------|--|------------|
| Balance at January 1, 2017 (net of tax effect of \$1,458) | \$ (7,714) | \$ 114 | \$ (36) | \$ (7,636) |
| Changes in value (net of tax effect of \$32) | (264) | (23) | 150 | (137) |
| Reclassifications into earnings (net of tax effect of \$90) ⁽¹⁾ | 166 | (6) | (8) | 152 |
| Balance at December 31, 2017 (net of tax effect of \$1,400) | (7,812) | 85 | 106 | (7,621) |
| Changes in value (net of tax effect of \$88) | (294) | 7 | — | (287) |
| Reclassifications into retained earnings (net of tax effect of \$61) | — | — | (106) | (106) |
| Reclassifications into earnings (net of tax effect of \$57) ⁽¹⁾ | 181 | 8 | — | 189 |
| Balance at December 31, 2018 (net of tax effect \$1,492) | (7,925) | 100 | — | (7,825) |
| Changes in value (net of tax effect of \$133) | (422) | 7 | — | (415) |
| Reclassifications into earnings (net of tax effect of \$76) ⁽¹⁾ | 252 | (1) | — | 251 |
| Balance at December 31, 2019 (net of tax effect of \$1,549) | \$ (8,095) | \$ 106 | \$ — | \$ (7,989) |

⁽¹⁾ Amounts reclassified from AOCI for pension and other benefits liabilities and for derivative contracts designated as foreign currency cash flow hedges are recorded in miscellaneous, net in non-operating expense and in passenger revenue, respectively, in the income statement.

⁽²⁾ Includes \$672 million of deferred income tax expense primarily related to pension and other benefit obligations that will not be recognized in net income until these obligations are fully extinguished. We consider all income sources, including other comprehensive income, in determining the amount of tax benefit allocated to continuing operations.

⁽³⁾ The 2017 reclassification into earnings for available-for-sale investments relates to our investment in Grupo Aeroméxico and the related conversion to accounting under the equity method. The reclassification of the unrealized gain was recorded to non-operating expense in our income statement. The 2018 reclassification into retained earnings relates to our investments in GOL, China Eastern and other previously designated available-for-sale investments, and the related conversion to accounting for changes in fair value of these investments from AOCI to the income statement.

NOTE 15. SEGMENTS

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker and is used in resource allocation and performance assessments. Our chief operating decision maker is considered to be our executive leadership team. Our executive leadership team regularly reviews discrete information for our two operating segments, which are determined by the products and services provided: our airline segment and our refinery segment.

Airline Segment

Our airline segment is managed as a single business unit that provides scheduled air transportation for passengers and cargo throughout the U.S. and around the world and includes our loyalty program, as well as other ancillary airline services. This allows us to benefit from an integrated revenue pricing and route network. Our flight equipment forms one fleet, which is deployed through a single route scheduling system. When making resource allocation decisions, our chief operating decision maker evaluates flight profitability data, which considers aircraft type and route economics, but gives no weight to the financial impact of the resource allocation decision on an individual carrier basis. Our objective in making resource allocation decisions is to optimize our consolidated financial results.

Refinery Segment

In 2012, our wholly owned subsidiaries, Monroe Energy, LLC, and MIPC, LLC (collectively, "Monroe"), acquired the Trainer oil refinery and related assets located near Philadelphia, Pennsylvania, as part of our strategy to mitigate the cost of the refining margin reflected in the price of jet fuel. The acquisition included pipelines and terminal assets that allow the refinery to supply jet fuel to our airline operations throughout the Northeastern U.S., including our New York hubs at LaGuardia and JFK.

Our refinery segment operates for the benefit of the airline segment by providing jet fuel to the airline segment from its own production and through jet fuel obtained through agreements with third parties. The refinery's production consists of jet fuel as well as non-jet fuel products. We use several counterparties to exchange the non-jet fuel products produced by the refinery for jet fuel consumed in our airline operations. The gross fair value of the products exchanged under these agreements during the years ended December 31, 2019, 2018 and 2017 was \$4.0 billion, \$3.6 billion and \$3.2 billion, respectively.

Segment Reporting

Segment results are prepared based on our internal accounting methods described below, with reconciliations to consolidated amounts in accordance with GAAP. Our segments are not designed to measure operating income or loss directly related to the products and services included in each segment on a stand-alone basis.

| (in millions) | Airline | Refinery | Intersegment Sales/Other | Consolidated |
|-------------------------------------|-----------|----------|-----------------------------|--------------|
| Year Ended December 31, 2019 | | | | |
| Operating revenue: | \$ 46,910 | \$ 5,558 | | \$ 47,007 |
| Sales to airline segment | | | \$ (1,103) ⁽¹⁾ | |
| Exchanged products | | | (3,963) ⁽²⁾ | |
| Sales of refined products | | | (395) ⁽³⁾ | |
| Operating income | 6,542 | 76 | | 6,618 |
| Interest expense (income), net | 327 | (26) | | 301 |
| Depreciation and amortization | 2,581 | 99 | (99) ⁽⁴⁾ | 2,581 |
| Total assets, end of period | 62,793 | 1,739 | | 64,532 |
| Capital expenditures | 4,880 | 56 | | 4,936 |
| Year Ended December 31, 2018 | | | | |
| Operating revenue: | \$ 43,890 | \$ 5,458 | | \$ 44,438 |
| Sales to airline segment | | | \$ (962) ⁽¹⁾ | |
| Exchanged products | | | (3,596) ⁽²⁾ | |
| Sales of refined products | | | (352) ⁽³⁾ | |
| Operating income | 5,206 | 58 | | 5,264 |
| Interest expense (income), net | 334 | (23) | | 311 |
| Depreciation and amortization | 2,329 | 67 | (67) ⁽⁴⁾ | 2,329 |
| Total assets, end of period | 58,561 | 1,705 | | 60,266 |
| Capital expenditures | 5,005 | 163 | | 5,168 |
| Year Ended December 31, 2017 | | | | |
| Operating revenue: | \$ 40,636 | \$ 5,039 | | \$ 41,138 |
| Sales to airline segment | | | \$ (886) ⁽¹⁾ | |
| Exchanged products | | | (3,240) ⁽²⁾ | |
| Sales of refined products | | | (411) ⁽³⁾ | |
| Operating income | 5,856 | 110 | | 5,966 |
| Interest expense (income), net | 403 | (7) | | 396 |
| Depreciation and amortization | 2,222 | 47 | (47) ⁽⁴⁾ | 2,222 |
| Total assets, end of period | 51,544 | 2,127 | | 53,671 |
| Capital expenditures | 3,743 | 148 | | 3,891 |

⁽¹⁾ Represents transfers, valued on a market price basis, from the refinery to the airline segment for use in airline operations. We determine market price by reference to the market index for the primary delivery location, which is New York Harbor, for jet fuel from the refinery.

⁽²⁾ Represents value of products delivered under our exchange agreements, as discussed above, determined on a market price basis.

⁽³⁾ These sales were at or near cost; accordingly, the margin on these sales is de minimis.

⁽⁴⁾ Refinery segment operating results, including depreciation and amortization, are included within aircraft fuel and related taxes in our income statement.

NOTE 16. EARNINGS PER SHARE

We calculate basic earnings per share by dividing net income by the weighted average number of common shares outstanding, excluding restricted shares. We calculate diluted earnings per share by dividing net income by the weighted average number of common shares outstanding plus the dilutive effect of outstanding share-based awards, including stock options and restricted stock awards. Antidilutive common stock equivalents excluded from the diluted earnings per share calculation are not material. The following table shows our computation of basic and diluted earnings per share:

| (in millions, except per share data) | Year Ended December 31, | | |
|---|-------------------------|----------|----------|
| | 2019 | 2018 | 2017 |
| Net income | \$ 4,767 | \$ 3,935 | \$ 3,205 |
| Basic weighted average shares outstanding | 651 | 691 | 720 |
| Dilutive effect of share-based awards | 2 | 3 | 3 |
| Diluted weighted average shares outstanding | 653 | 694 | 723 |
| Basic earnings per share | \$ 7.32 | \$ 5.69 | \$ 4.45 |
| Diluted earnings per share | \$ 7.30 | \$ 5.67 | \$ 4.43 |

NOTE 17. QUARTERLY FINANCIAL DATA (UNAUDITED)

The following table summarizes our unaudited results of operations on a quarterly basis. The quarterly earnings per share amounts for a year will not add to the earnings per share for that year due to the weighting of shares used in calculating per share data.

| (in millions, except per share data) | Three Months Ended, | | | |
|--------------------------------------|---------------------|-----------|--------------|-------------|
| | March 31 | June 30 | September 30 | December 31 |
| 2019 | | | | |
| Operating revenue | \$ 10,472 | \$ 12,536 | \$ 12,560 | \$ 11,439 |
| Operating income | 1,020 | 2,128 | 2,071 | 1,399 |
| Net income | 730 | 1,443 | 1,495 | 1,099 |
| Basic earnings per share | \$ 1.10 | \$ 2.22 | \$ 2.32 | \$ 1.71 |
| Diluted earnings per share | \$ 1.09 | \$ 2.21 | \$ 2.31 | \$ 1.71 |
| 2018 | | | | |
| Operating revenue | \$ 9,968 | \$ 11,775 | \$ 11,953 | \$ 10,742 |
| Operating income | 844 | 1,684 | 1,645 | 1,090 |
| Net income | 557 | 1,036 | 1,322 | 1,019 |
| Basic earnings per share | \$ 0.79 | \$ 1.49 | \$ 1.93 | \$ 1.50 |
| Diluted earnings per share | \$ 0.79 | \$ 1.49 | \$ 1.92 | \$ 1.49 |

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, including our Chief Executive Officer and Chief Financial Officer, performed an evaluation of our disclosure controls and procedures, which have been designed to permit us to record, process, summarize and report, within time periods specified by the SEC's rules and forms, information required to be disclosed. Our management, including our Chief Executive Officer and Chief Financial Officer, concluded that the controls and procedures were effective as of December 31, 2019 to ensure that material information was accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control

During the three months ended December 31, 2019, we did not make any changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies may deteriorate.

Management conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2019 using the criteria issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in the 2013 Internal Control-Integrated Framework. Based on that evaluation, management believes that our internal control over financial reporting was effective as of December 31, 2019.

The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by Ernst & Young LLP, an independent registered public accounting firm, which also audited our Consolidated Financial Statements for the year ended December 31, 2019. Ernst & Young LLP's report on our internal control over financial reporting is set forth below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of
Delta Air Lines, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Delta Air Lines, Inc.'s internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Delta Air Lines, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, and the related consolidated statements of operations, comprehensive income, cash flows and stockholders' equity for each of the three years in the period ended December 31, 2019, and the related notes and our report dated February 12, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitation of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Atlanta, Georgia
February 12, 2020

/s/ Ernst & Young LLP

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE OF THE REGISTRANT

Information required by this item is set forth under the headings "Board Operations," "Proposal 1 - Election of Directors" and "Section 16 Beneficial Ownership Reporting Compliance" in our Proxy Statement to be filed with the Commission related to our 2020 Annual Meeting of Stockholders ("Proxy Statement"), and is incorporated by reference. Pursuant to instruction 3 to paragraph (b) of Item 401 of Regulation S-K, certain information regarding executive officers is contained in Part I of this Form 10-K.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this item is set forth under the headings "Executive Compensation" and "Director Compensation" in our Proxy Statement and is incorporated by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information about the number of shares of common stock that may be issued under Delta's equity compensation plans as of December 31, 2019.

| Plan Category | (a) No. of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights ⁽¹⁾ | (b) Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights ⁽²⁾ | (c) No. of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) ⁽³⁾ |
|--|---|--|---|
| Equity compensation plans approved by securities holders | 5,334,334 | \$ 36.60 | 24,809,943 |
| Equity compensation plans not approved by securities holders | — | — | — |
| Total | 5,334,334 | \$ 36.60 | 24,809,943 |

⁽¹⁾ Includes a maximum of 1,395,451 shares of common stock that may be issued upon the achievement of certain performance conditions under outstanding performance share awards as of December 31, 2019.

⁽²⁾ Includes performance share awards, which do not have exercise prices. The weighted average exercise price of options is \$49.57.

⁽³⁾ Reflects shares remaining available for issuance under Delta's Performance Compensation Plan. If any shares of our common stock are covered by an award under the Plan that expires, is canceled, forfeited or otherwise terminates without delivery of shares (including shares surrendered or withheld for payment of taxes related to an award), then such shares will again be available for issuance under the Plan except for (i) any shares tendered in payment of an option, (ii) shares withheld to satisfy any tax withholding obligation with respect to the exercise of an option or stock appreciation right ("SAR") or (iii) shares covered by a stock-settled SAR or other awards that were not issued upon the settlement of the award. Because 2,590,479 shares of restricted stock remain unvested and subject to forfeiture, these shares could again be available for issuance.

Other information required by this item is set forth under the heading "Beneficial Ownership of Securities" in our Proxy Statement and is incorporated by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this item is set forth under the headings "Board Operations" and "Proposal 1 - Election of Directors" in our Proxy Statement and is incorporated by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required by this item is set forth under the heading "Proposal 3 - Ratification of the Appointment of Independent Auditors" in our Proxy Statement and is incorporated by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) (1). The following is an index of the financial statements required by this item that are included in this Form 10-K:

Report of Independent Registered Public Accounting Firm
Consolidated Balance Sheets—December 31, 2019 and 2018
Consolidated Statements of Operations for the years ended December 31, 2019, 2018 and 2017
Consolidated Statements of Comprehensive Income for the years ended December 31, 2019, 2018 and 2017
Consolidated Statements of Cash Flows for the years ended December 31, 2019, 2018 and 2017
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2019, 2018 and 2017
Notes to the Consolidated Financial Statements

(2). Financial Statement Schedules. Financial statement schedules are not included herein as the required information is not applicable or is not present in amounts sufficient to require submission of the schedule, or because the information required is included in the Consolidated Financial Statements and accompanying notes included in this Form 10-K.

(3). Exhibit List.

The exhibits required by this item are listed below. The management contracts and compensatory plans or arrangements required to be filed as an exhibit to this Form 10-K are listed as Exhibits 10.8 through 10.18.

Note to Exhibits: Any representations and warranties of a party set forth in any agreement (including all exhibits and schedules thereto) filed with this Annual Report on Form 10-K have been made solely for the benefit of the other party to the agreement. Some of those representations and warranties were made only as of the date of the agreement or such other date as specified in the agreement, may be subject to a contractual standard of materiality different from what may be viewed as material to stockholders, or may have been used for the purpose of allocating risk between the parties rather than establishing matters as facts. Such agreements are included with this filing only to provide investors with information regarding the terms of the agreements, and not to provide investors with any other factual or disclosure information regarding the registrant or its business.

- 3.1(a) [Delta's Amended and Restated Certificate of Incorporation \(Filed as Exhibit 3.1 to Delta's Current Report on Form 8-K as filed on April 30, 2007\).](#)*
- 3.1 (b) [Amendment to Amended and Restated Certificate of Incorporation \(Filed as Exhibit 3.1 to Delta's Current Report on Form 8-K as filed on June 27, 2014\).](#)*
- 3.2 [Delta's Bylaws \(Filed as Exhibit 3.1 to Delta's Current Report on Form 8-K as filed on February 8, 2019\).](#)*
- 4.1 [Description of Registrant's Securities.](#)

Delta is not filing any instruments evidencing any indebtedness because the total amount of securities authorized under any single such instrument does not exceed 10% of the total assets of Delta and its subsidiaries on a consolidated basis. Copies of such instruments will be furnished to the Securities and Exchange Commission upon request.

- 10.1 [Credit Agreement, dated as of April 19, 2018, among Delta Air Lines, Inc., as Borrower and The Lenders and JP Morgan Chase Bank, N.A., as Administrative Agent, Barclays Bank PLC, BNP Paribas, Citigroup Global Markets Inc., Compass Bank, Credit Suisse AG, Cayman Islands Branch, Deutsche Bank Securities Inc., Fifth Third Bank, Goldman Sachs Bank USA, Industrial and Commercial Bank of China Limited, New York Branch, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Morgan Stanley Senior Funding, Inc., PNC Bank, National Association, Standard Chartered Bank, Sumitomo Mitsui Banking Corporation, U.S. Bank National Association and Wells Fargo Bank, N.A., as Co-Syndication Agents, and JP Morgan Chase Bank, N.A., Barclays Bank PLC, BNP Paribas, Citigroup Global Markets Inc., Compass Bank, Credit Suisse AG, Cayman Islands Branch, Deutsche Bank Securities Inc., Fifth Third Bank, Goldman Sachs Bank USA, Industrial and Commercial Bank of China Limited, New York Branch, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Morgan Stanley Senior Funding, Inc., PNC Capital Markets LLC, Standard Chartered Bank, Sumitomo Mitsui Banking Corporation, U.S. Bank National Association, Wells Fargo Bank, N.A., Credit Agricole Corporate and Investment Bank and Natixis, New York Branch, as Joint Lead Arrangers and Joint Bookrunners \(Filed as Exhibit 10.1 to Delta's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018\).*](#)
- 10.2 [Anchor Tenant Agreement dated as of December 9, 2010 between JFK International Air Terminal LLC and Delta Air Lines, Inc. \(Filed as Exhibit 10.4 to Delta's Annual Report on Form 10-K for the year ended December 31, 2010\).*](#)
- 10.3 [Amended and Restated Agreement of Lease by and between The Port Authority of New York and New Jersey and Delta Air Lines, Inc., dated as of September 13, 2017 \(Filed as Exhibit 10.1 to Delta's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017\).*](#)
- 10.4(a) [Airbus A330-900neo Aircraft and A350-900 Aircraft Purchase Agreement dated as of November 24, 2014 between Airbus S.A.S and Delta Air Lines, Inc. \(Filed as Exhibit 10.9 to Delta's Annual Report on Form 10-K for the year ended December 31, 2014\).*/**](#)
- 10.4(b) [Amendment No. 3, dated May 10, 2017, to Airbus A330-900 Aircraft and A350-900 Aircraft Purchase Agreement dated as of November 24, 2014 between Airbus S.A.S. and Delta Air Lines, Inc. \("Amendment No. 3"\) \(Filed as Exhibit 10.2\(a\) to Delta's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017\).*/**](#)
- 10.4(c) [Letter Agreements, dated May 10, 2017, relating to Amendment No. 3 \(Filed as Exhibit 10.2\(b\) to Delta's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017\).*/**](#)
- 10.4(d) [Amendment No. 8, dated as of October 30, 2018, to Airbus A330-900 Aircraft and A350-900 Aircraft Purchase Agreement dated as of November 24, 2014 between Airbus S.A.S. and Delta Air Lines, Inc. \("Amendment No. 8"\) \(Filed as Exhibit 10.7\(d\) to Delta's Annual Report on Form 10-K for the year ended December 31, 2018\).*/**](#)
- 10.4(e) [Letter Agreements, dated as of October 30, 2018, relating to Amendment No. 8 \(Filed as Exhibit 10.7\(e\) to Delta's Annual Report on Form 10-K for the year ended December 31, 2018\).*/**](#)
- 10.5(a) [Airbus A321 Aircraft and A330 Aircraft Purchase Agreement dated as of September 3, 2013 between Airbus S.A.S. and Delta Air Lines, Inc., as amended through April 29, 2016 \(Filed as Exhibit 10.1 to Delta's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016\).*/**](#)
- 10.5(b) [Amendment No. 9, dated May 10, 2017, to Airbus A321 Aircraft and A330 Aircraft Purchase Agreement dated as of September 3, 2013 between Airbus S.A.S. and Delta Air Lines, Inc. \("Amendment No. 9"\) \(Filed as Exhibit 10.1\(a\) to Delta's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017\).*/**](#)
- 10.5(c) [Letter Agreements, dated May 10, 2017, relating to Amendment No. 9 \(Filed as Exhibit 10.1\(b\) to Delta's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017\).*/**](#)

- 10.6 [Airbus A321neo Aircraft Purchase Agreement dated as of December 15, 2017 between Airbus S.A.S. and Delta Air Lines, Inc. \(Filed as Exhibit 10.10 to Delta's Annual Report on Form 10-K for the year ended December 31, 2017\). */**](#)
- 10.7 [Framework Agreement, dated as of September 26, 2019, by and between LATAM Airlines Group S.A. and Delta Air Lines, Inc. \(Filed as Exhibit 10.1 to Delta Quarterly Report on Form 10-Q for the quarter ended September 30, 2019\). */**](#)
- 10.8 [Delta Air Lines, Inc. Performance Compensation Plan \(Filed as Exhibit 10.2 to Delta's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016\).*](#)
- 10.9 [Delta Air Lines, Inc. Officer and Director Severance Plan, as amended and restated as of June 1, 2016 \(Filed as Exhibit 10.3 to Delta's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016\).*](#)
- 10.10 [Description of Certain Benefits of Members of the Board of Directors and Executive Officers \(Filed as Exhibit 10.11 to Delta's Annual Report on Form 10-K for the year ended December 31, 2016\).*](#)
- 10.11(a) [Delta Air Lines, Inc. 2017 Long-Term Incentive Program \(Filed as Exhibit 10.15 to Delta's Annual Report on Form 10-K for the year ended December 31, 2016\).*](#)
- 10.11(b) [First Amendment to the Delta Air Lines, Inc. 2017 Long-Term Incentive Program \(Filed as Exhibit 10.3 to Delta's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017\).*](#)
- 10.11(c) [Second Amendment to the Delta Air Lines, Inc. 2017 Long-Term Incentive Program \(Filed as Exhibit 10.16\(c\) to Delta's Annual Report on Form 10-K for the year ended December 31, 2017\).*](#)
- 10.11(d) [Model Award Agreement for the Delta Air Lines, Inc. 2017 Long-Term Incentive Program \(Filed as Exhibit 10.3 to Delta's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017\).*](#)
- 10.12(a) [Delta Air Lines, Inc. 2018 Long-Term Incentive Program \(Filed as Exhibit 10.17 to Delta's Annual Report on Form 10-K for the year ended December 31, 2017\).*](#)
- 10.12(b) [Model Award Agreement for the Delta Air Lines, Inc. 2018 Long-Term Incentive Program \(Filed as Exhibit 10.1 to Delta's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018\).*](#)
- 10.13(a) [Delta Air Lines, Inc. 2019 Long-Term Incentive Program \(Filed as Exhibit 10.16 to Delta's Annual Report on Form 10-K for the year ended December 31, 2018\).*](#)
- 10.13(b) [Model Award Agreement for the Delta Air Lines, Inc. 2019 Long-Term Incentive Program \(Filed as Exhibit 10.1 to Delta's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019\).*](#)
- 10.14 [Delta Air Lines, Inc. 2020 Long-Term Incentive Program.](#)
- 10.15 [Delta Air Lines, Inc. 2019 Management Incentive Plan \(Filed as Exhibit 10.18 to Delta's Annual Report on Form 10-K for the year ended December 31, 2018\).*](#)
- 10.16 [Delta Air Lines, Inc. 2020 Management Incentive Plan.](#)
- 10.17 [Delta Air Lines, Inc. Restoration Long Term Disability Plan \(Filed as Exhibit 10.24 to Delta's Annual Report on Form 10-K for the year ended December 31, 2011\).*](#)
- 10.18 [Terms of 2019 Restricted Stock Award for Non-Employee Directors \(filed as Exhibit 10.1 to Delta's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019\).*](#)
- 21.1 [Subsidiaries of the Registrant.](#)
- 23.1 [Consent of Ernst & Young LLP.](#)

31.1 [Rule 13a-14\(a\)/15d-14\(a\) Certification of Chief Executive Officer.](#)

31.2 [Rule 13a-14\(a\)/15d-14\(a\) Certification of Chief Financial Officer.](#)

32 [Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act 2002.](#)

101.INS XBRL Instance Document - The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL 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 Labels Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

104 The cover page from this Annual Report on Form 10-K for the year ended December 31, 2019 formatted in Inline XBRL

* Incorporated by reference.

** Portions of this exhibit have been omitted as confidential information.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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 the 12th day of February, 2020.

DELTA AIR LINES, INC.

By: /s/ Edward H. Bastian
Edward H. Bastian
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on the 12th day of February, 2020 by the following persons on behalf of the registrant and in the capacities indicated.

| Signature | Title |
|-----------------------------|---|
| /s/ Edward H. Bastian | Chief Executive Officer and Director (Principal Executive Officer) |
| Edward H. Bastian | |
| /s/ Paul A. Jacobson | Executive Vice President and Chief Financial Officer (Principal Financial Officer) |
| Paul A. Jacobson | |
| /s/ William C. Carroll | Senior Vice President - Finance and Controller (Principal Accounting Officer) |
| William C. Carroll | |
| /s/ Francis S. Blake | Chairman of the Board |
| Francis S. Blake | |
| /s/ Daniel A. Carp | Director |
| Daniel A. Carp | |
| /s/ Ashton B. Carter | Director |
| Ashton B. Carter | |
| /s/ David G. DeWalt | Director |
| David G. DeWalt | |
| /s/ William H. Easter III | Director |
| William H. Easter III | |
| /s/ Christopher A. Hazleton | Director |
| Christopher A. Hazleton | |
| /s/ Michael P. Huerta | Director |
| Michael P. Huerta | |
| /s/ Jeanne P. Jackson | Director |
| Jeanne P. Jackson | |
| /s/ George N. Mattson | Director |
| George N. Mattson | |
| /s/ Sergio A.L. Rial | Director |
| Sergio A.L. Rial | |
| /s/ David S. Taylor | Director |
| David S. Taylor | |
| /s/ Kathy N. Waller | Director |
| Kathy N. Waller | |

**DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED
PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

As of February 12, 2020, Delta Air Lines, Inc. (the "Company") has one class of securities, our common stock, registered under Section 12 of the Securities Exchange Act of 1934, as amended.

DESCRIPTION OF COMMON STOCK

The following description of our common stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") and our Amended and Restated Bylaws (the "Bylaws"), each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.1 is a part. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of the General Corporation Law of the State of Delaware ("DGCL") for additional information.

Authorized Shares of Capital Stock

Our authorized capital stock consists of 1,500,000,000 shares of common stock, par value \$0.0001 per share, and 500,000,000 shares of preferred stock, without par value.

Voting Rights

Holders of common stock are entitled to one vote for each share held in their name on all matters submitted to a vote of shareowners and do not have preemptive rights or cumulative voting rights.

Dividends

Subject to the rights of the holders of any shares of preferred stock that may at the time be outstanding, the holders of shares of common stock are entitled to receive such dividends, if any, as may be declared from time to time by the Company's Board of Directors out of funds legally available for payment of dividends.

Liquidation Rights

If the Company is liquidated, the holders of shares of common stock are entitled to share ratably in the distribution remaining after payment of debts and expenses and of the amounts to be paid on liquidation to the holders of shares of preferred stock.

Foreign Ownership Limitation

The Certificate limits the total number of shares of equity securities held by all persons who fail to qualify as citizens of the United States to no more than 24.9% of the voting power of the Company's outstanding equity securities. In the event that this threshold is exceeded, the number of votes such holders will be entitled to vote shall be reduced pro rata by such amount so that their aggregate voting power equals this threshold amount. The Certificate provides that the Company may require a certification from holders of its common stock as to the amount of equity securities held by holders who are not citizens of the United States

Listing

Our common stock is listed on the New York Stock Exchange ("NYSE") under the trading symbol DAL.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is EQ Shareowner Services, P.O. Box 64854, St. Paul, MN 55164-0854.

Anti-Takeover Effects of Delaware Law

The Company is subject to the “business combination” provisions of Section 203 of the DGCL. In general, such provisions prohibit a publicly held Delaware corporation from engaging in various “business combination” transactions with any interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A “business combination” is defined to include mergers, asset sales and other transactions resulting in financial benefit to an interested stockholder. In general, an “interested stockholder” is a person who, together with affiliates and associates, owns (or within three years, did own) 15% or more of a corporation’s voting stock. The statute could prohibit or delay mergers or other takeover or change in control attempts with respect to the Company and, accordingly, may discourage attempts to acquire the Company even though such a transaction may offer the Company’s shareowners the opportunity to sell their stock at a price above the prevailing market price.

DELTA AIR LINES, INC.
2020 LONG-TERM INCENTIVE PROGRAM

1. Purpose. The 2020 Long-Term Incentive Program (the “**2020 LTIP**”) is a long term incentive program sponsored by Delta Air Lines, Inc. (“**Delta**” or the “**Company**”) that is intended to closely: (a) link pay and performance by providing management employees with a compensation opportunity based on Delta achieving key business objectives and (b) align the interests of management employees with the Company’s other employees and stakeholders.

The 2020 LTIP is being adopted under the Delta Air Lines, Inc. Performance Compensation Plan (“**Performance Compensation Plan**”). It is subject to the terms of the Performance Compensation Plan and an individual’s 2020 LTIP Award Agreement (“**Award Agreement**”).

Capitalized terms that are used but not defined in the 2020 LTIP shall have the meaning ascribed to them in the Performance Compensation Plan.

2. Plan Administration. (a) The Personnel & Compensation Committee of the Board of Directors (the “**Committee**”) shall be responsible for the general administration and interpretation of the 2020 LTIP and for carrying out its provisions. The Committee shall have such powers as may be necessary to discharge its duties hereunder, including, without limitation, the following powers and duties, but subject to the terms of the 2020 LTIP:

(i) authority to construe and interpret the terms of the 2020 LTIP and to determine eligibility, awards and the amount, manner and time of payment of any awards hereunder;

(ii) authority to prescribe forms and procedures for purposes of the 2020 LTIP participation and distribution of awards; and

(iii) authority to adopt rules and regulations and to take such actions as it deems necessary or desirable for the proper administration of the 2020 LTIP, which authority may be delegated to the Company’s Chief People Officer.

(b) Any rule or decision by the Committee (or its delegate) that is not inconsistent with the provisions of the 2020 LTIP shall be conclusive and binding on all persons and shall be given the maximum deference permitted by law.

(c) Notwithstanding any provision of the 2020 LTIP or the Performance Compensation Plan to the contrary, the minimum amount of total Performance Awards payable to eligible Participants (the “**Minimum Amount**”) may be fixed by the Committee (or its delegate) on or prior to the end of the Performance Period, but in no event earlier than one calendar month prior to the end of the Performance Period. Once so determined by the Committee (or its delegate), the Minimum Amount shall not be further reduced or eliminated at any time thereafter. Any portion of the Minimum Amount allocated to such Participants that may be forfeited pursuant to the terms of the 2020 LTIP shall be reallocated among the other eligible Participants.

3. Individual Award Agreements. Any person offered an Award under the 2020 LTIP will be required to sign an individual Award Agreement. Execution by such person of his or her Award Agreement will be a prerequisite to the effectiveness of the Award under the 2020 LTIP and to the person becoming a “**Participant**” in the 2020 LTIP. The terms and conditions of any Award Agreement, if contrary to the terms of the 2020 LTIP, shall govern the rights of the corresponding Participant.

4. Awards.

(a) Restricted Stock.

(i) Award Grant. A Participant may receive Restricted Stock as specified in the Participant's Award Agreement (the "Restricted Stock").

(ii) Grant Date. The Grant Date of the Restricted Stock will be determined by the Committee in accordance with the Company's Equity Award Grant Policy, as in effect from time to time, and set forth in a Participant's Award Agreement.

(iii) Restrictions. Until the restrictions imposed by this Section 4(a) (the "Restrictions") have lapsed pursuant to Section 4(a) (iv), (v) or (vi), a Participant will not be permitted to sell, exchange, assign, transfer or otherwise dispose of the Restricted Stock and the Restricted Stock will be subject to forfeiture as set forth below.

(iv) Lapse of Restrictions—Continued Employment. Subject to the terms of the Performance Compensation Plan and the 2020 LTIP, the Restrictions shall lapse and be of no further force or effect with respect to one-third of the Shares of Restricted Stock on each of the following dates: (A) February 1, 2021 ("First RS Installment"); (B) February 1, 2022 ("Second RS Installment"); and (C) February 1, 2023 ("Third RS Installment").¹

(v) Lapse of Restrictions/Forfeiture upon Termination of Employment. The Restricted Stock and the Restrictions set forth in this Section 4(a) are subject to the following terms and conditions:

(A) *Without Cause or For Good Reason*. Upon a Participant's Termination of Employment by the Company without Cause or by the Participant for Good Reason (including the Termination of Employment of the Participant if he or she is employed by an Affiliate at the time the Company sells or otherwise divests itself of such Affiliate), with respect to any portion of the Restricted Stock subject to the Restrictions, subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, the Restrictions shall immediately lapse on the Pro Rata RS Portion as of the date of such Termination of Employment. Upon a Participant's Termination of Employment by the Company without Cause or by the Participant for Good Reason, any Restricted Stock that remains subject to the Restrictions, other than the Pro Rata RS Portion, shall be immediately forfeited.

"Pro Rata RS Portion" means, with respect to any portion of Restricted Stock that is subject to the Restrictions at the time of a Participant's Termination of Employment, the number of Shares with respect to which the Restrictions would have

¹ The number of Shares subject to each RS Installment will be equal to the total number of Shares subject to the Restricted Stock Award divided by three; *provided*, that if this formula results in any fractional Share allocation to any RS Installment, the number of Shares with respect to which the Restrictions lapse under the First RS Installment and, if necessary, the Second RS Installment, will be increased so that only full Shares are covered by each RS Installment. For example, if a Restricted Stock Award covers 1,000 Shares, the Restrictions will lapse with respect to 334 Shares under the First RS Installment and 333 Shares under each of the Second and Third RS Installments.

lapsed on each future RS Installment multiplied by a fraction (i) the numerator of which is the number of calendar months² from the Grant Date to the date of such Termination of Employment, rounded up for any partial month and (ii) the denominator of which is twelve (12) for the First RS Installment, twenty-four (24) for the Second RS Installment and thirty-six (36) for the Third RS Installment.³

(B) *Voluntary Resignation.* Upon a Participant's Termination of Employment by reason of a voluntary resignation (other than for Good Reason or Retirement), any portion of the Restricted Stock subject to the Restrictions shall be immediately forfeited.

(C) *Retirement.* Subject to Section 4(a)(v)(F), upon a Participant's Termination of Employment by reason of Retirement, with respect to any portion of the Restricted Stock subject to the Restrictions, subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, the Restrictions shall immediately lapse on the Pro Rata RS Portion as of the date of such Termination of Employment. Pro Rata RS Portion has the meaning set forth in Section 4(a)(v)(A). Upon a Participant's Termination of Employment by reason of Retirement, any Restricted Stock that remains subject to the Restrictions, other than the Pro Rata RS Portion, shall be immediately forfeited.

(D) *Death or Disability.* Upon a Participant's Termination of Employment due to death or Disability, the Restrictions shall immediately lapse and be of no further force or effect as of the date of such Termination of Employment.

(E) *For Cause.* Upon a Participant's Termination of Employment by the Company for Cause, any portion of the Restricted Stock subject to the Restrictions shall be immediately forfeited.

(F) *Retirement-Eligible Participants Who Incur a Termination of Employment for Other Reasons.* If a Participant who is eligible for Retirement is or would be terminated by the Company without Cause, such Participant shall be considered to have been terminated by the Company without Cause for purposes of the 2020 LTIP rather than having retired, but only if the Participant acknowledges that, absent Retirement, the Participant would have been terminated by the Company without Cause. If, however, the employment of a Participant who is eligible for Retirement is terminated by the Company for Cause, then, regardless of whether the Participant is considered as a retiree for purposes of any other program, plan or policy of the Company, for purposes of the 2020 LTIP, the Participant's employment shall be considered to have been terminated by the Company for Cause.

²For purposes of the 2020 LTIP, one calendar month is calculated from the date of measurement to the same or closest

³If this formula results in any fractional Share, the Pro Rata RS Portion will be rounded up to the nearest whole Share.

(vi) Change in Control. Notwithstanding the foregoing and subject to Section 5, upon a Participant's Termination of Employment by the Company without Cause or by the Participant for Good Reason (including the Termination of Employment of the Participant if he or she is employed by an Affiliate at the time the Company sells or otherwise divests itself of such Affiliate) on or after a Change in Control but prior to the second anniversary of such Change in Control, subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, any Restrictions in effect shall immediately lapse on the date of such Termination of Employment and be of no further force or effect as of such date.

(vii) Dividends. In the event a cash dividend shall be paid with respect to Shares at a time the Restrictions on the Restricted Stock have not lapsed, the Participant shall be eligible to receive the dividend upon the lapse of the Restrictions. The Restrictions shall apply to any such dividend.

(b) Performance Awards.

(i) Award Grant. A Participant may receive a Performance Award for a specified target cash amount as set forth in the Participant's Award Agreement (a "**Performance Award**").

(ii) Grant Date. The Grant Date of the Performance Award will be determined by the Committee and set forth in the Participant's Award Agreement.

(iii) Payout Criteria and Form of Payment. Except as otherwise expressly set forth in this Section 4(b), payment, if any, of a Performance Award will be based on the following factors as described and defined below: (A) Total Revenue per Available Seat Mile ("**TRASM**") Performance during the Performance Period of the Company as compared to the Industry Group members; (B) Customer Service Performance during the Performance Period of the Company; (C) Return on Invested Capital during the Performance Period of the Company; and (D) Cumulative Free Cash Flow during the Performance Period of the Company, which payment will be further adjusted based on Relative Total Shareholder Return ("**TSR**") Performance during the Performance Period of the Company as compared to the S&P 500 Companies.

The payout, if any, of a Performance Award will be made (A) in Shares, calculated based on the Conversion Formula (as defined below), to each Participant who is employed by the Company as an executive vice president or more senior officer ("**Executive Officer Participant**") at the time of such payout and (B) in cash in all other circumstances.

(iv) Definitions.

(A) *In General*.

- (1) The "**Conversion Formula**" will apply to convert from cash to Shares the payout, if any, of a Performance Award to a person who is an Executive Officer Participant at the time of such payout. First, the cash amount of the payout is calculated in the same manner as if the payout is being made in cash. Next, the cash amount is converted into a number of Shares based on the following formula: $(A \div B)$, where:

A = the amount of the payout for the Performance Award if it is paid in cash; and

B = the closing price of a Share on the New York Stock Exchange on the later of (1) the date that the Committee approves the payouts, if any, of the Performance Awards to the Executive Officer Participants following the Committee's determination of the achievement of the payout criteria described in Section 4(b)(iii) and (2) the third business day following the date on which the Company publicly announces its annual financial results if this date is scheduled in the same month that the Committee approves such payouts, if any.

(2) **"GAAP"** means accounting principles generally accepted in the United States of America.

(3) **"Industry Group"** means Alaska Air Group, Inc., American Airlines Group, Inc., JetBlue Airways Corporation, Southwest Airlines Co., and United Continental Holdings, Inc.

(4) **"Performance Period"** means the period beginning on January 1, 2020 and ending on and including December 31, 2022.

(B) *TRASM Performance*.

(1) **"TRASM Performance"** shall be measured based on the result of the following formula: $(A \div B)$, expressed as a percentage, where:

A = Delta's TRASM; and

B = Industry Group Average TRASM.

(2) **"TRASM"** for Delta shall be calculated by using Delta's Available Seat Miles and Total Operating Revenue for the applicable periods and the following formula: $(A \div B)$, where

A = Total Operating Revenue for 2020, 2021 and 2022; and

B = Available Seat Miles for 2020, 2021 and 2022.

(3) **"Industry Group Average TRASM"** shall be calculated by using the aggregate Available Seat Miles and aggregate Total Operating Revenue for the applicable periods and the following formula: $(A \div B)$, where

A = Total Operating Revenue for 2020, 2021 and 2022 for each of the members of the Industry Group; and

B = Available Seat Miles for 2020, 2021 and 2022 for each member of the Industry Group.

(4) **"Available Seat Miles"** means, for the subject company, the consolidated scheduled and non-scheduled total number of seats available for transporting passengers during a reporting period multiplied by the total number of miles flown during that period.

- (5) “**Total Operating Revenue**” means, subject to Section 4(b)(v)(B), the subject company’s total operating revenue for the applicable periods based on its regularly prepared and publicly available statements of operations prepared in accordance with GAAP; *provided*, with respect to Delta, Total Operating Revenue shall exclude the portion of revenue associated with refinery sales to third parties net of exchange.

(C) *Customer Service Performance.*

- (1) “**Customer Service Performance**” for Delta shall be measured based on the percentage point improvement in Delta’s average monthly Net Promoter Score (“**NPS**”) from the 2019 calendar year to the average monthly NPS over the Performance Period, with (A) Delta’s NPS performance attributable to domestic travel accounting for 50% of the measure and (B) Delta’s NPS performance attributable to international travel accounting for 50% of the measure. The criteria and methodology used to determine Delta’s NPS is described in a document titled, “‘Net Promoter’: Measuring Customer Satisfaction at Delta,” which was previously reviewed by the Committee. Company management will periodically report to the Company’s Board of Directors regarding Delta’s NPS.

(D) *Return on Invested Capital.*

- (1) “**Return on Invested Capital**” for Delta shall be calculated by using Delta’s Average Adjusted Total Net Operating Income and Average Invested Capital for the applicable periods and the following formula ($A \div B$), where:

A = Average Adjusted Total Net Operating Income for 2020, 2021 and 2022; and

B = Average Invested Capital for 2020, 2021 and 2022.

- (2) “**Average Adjusted Total Net Operating Income**” means, subject to Section 4(b)(v)(B), (i) Delta’s average consolidated pre-tax income for the applicable periods based on its regularly prepared and publicly available statements of operations prepared in accordance with GAAP, but excluding (A) net interest expense; (B) items present in the line item “restructuring and other items” or such similar line item; (C) mark-to-market adjustments; (D) other special, unusual or nonrecurring items which are disclosed in publicly available filings with the U.S. Securities and Exchange Commission (the “**SEC**”); and (E) implied interest in aircraft rent expense and amortized pension expense related to gains/losses that impact accumulated other comprehensive income (“**AOCI**”) multiplied by (ii) one minus Delta’s Effective Tax Rate for the applicable periods.

(3) “**Effective Tax Rate**” means Delta’s effective income tax rate for the applicable periods as disclosed in publicly available filings with the SEC.

(4) “**Average Invested Capital**” means, subject to Section 4(b)(v)(B), Delta’s total invested capital determined based on the average of thirteen calendar quarters measured from the last calendar quarter preceding the Performance Period using the following formula, (A+B), where:

A = Adjusted Book Value of Equity; and

B = Adjusted Gross Debt.

(5) “**Adjusted Book Value of Equity**” for Delta shall be calculated quarterly based on its regularly prepared internal financial statements (i) with an initial starting value for the quarter ending December 31, 2019 (the “**Initial Value**”) equal to the book value of equity determined in accordance with GAAP as of December 31, 2019, but excluding the impact of gains or losses as of December 31, 2019 associated with (1) the cumulative pension and other post-employment retirement benefits net balance recorded in AOCI; (2) the derivative contracts and associated items net balance recorded in AOCI; and (3) the deferred tax asset valuation allowance balance and (ii) using the following formula for each subsequent quarter thereafter, (A+B+C), where:

A = The Initial Value;

B = The cumulative amount starting as of January 1, 2020 and ending as of the last day of the applicable calendar quarter of the Company’s pre-tax income determined in accordance with GAAP, but (i) excluding: (1) items present in the line item “restructuring and other items” or such similar line item; (2) mark-to-market adjustments for hedges recorded in periods other than the settlement period; and (3) other special, unusual, or nonrecurring items which are disclosed in publicly available filings with the SEC and (ii) including expenses due to amortization of post-employment benefit losses in AOCI that have occurred during the Performance Period; and

C = in the event that the Company pays a dividend or issues or repurchases additional Common Stock for cash during the Performance Period (but excluding the exercise of any employee stock option for cash or any other issuance of Common Stock to employees), (i) the gross cash proceeds of the equity issuance or (ii) the gross cash payments for the equity repurchase or dividends, before adjustment for any applicable fees or charges associated therewith.

(6) “**Adjusted Gross Debt**” for Delta shall be calculated quarterly based on its regularly prepared internal financial statements using the following formula (A+B), subject to Section 4(b)(v)(B), where:

A = Total gross long term debt and capital leases (including current maturities) that reflect Delta's actual obligations to lenders or lessors, including any adjustments from the book value to reflect premiums or discounts that may be amortizing; and

B = Annual aircraft rent expense multiplied by seven.

(E) *Cumulative Free Cash Flow.*

- (1) **"Cumulative Free Cash Flow"** for Delta shall be calculated by using Delta's Free Cash Flow for 2020, 2021 and 2022.
- (2) **"Free Cash Flow"** means, subject to Section 4(b)(v)(B), for the applicable periods, the net of Delta's (i) net cash provided by operating activities, (ii) cash used in property and equipment additions and (iii) net cash flows provided by/used in transactions that are reported within other, net investing activities, all based on Delta's regularly prepared and publicly available statements in accordance with GAAP, but excluding: (A) pension contributions in excess of the greater of (I) the Company's minimum required contributions and (II) \$1 billion and (B) cash flows associated with bond-funded airport construction projects.

(F) *Relative TSR Performance.*

- (1) **"Relative TSR Performance"** shall be calculated based on Delta's TSR Percentile Ranking for the Performance Period.
- (2) **"TSR Percentile Ranking"** means the percentage of the S&P 500 Companies with Total Shareholder Return for the Performance Period that is less than or equal to Delta's Total Shareholder Return. If the Company's Total Shareholder Return is the same as another company's Total Shareholder Return, the Company shall be treated as having the higher Total Shareholder Return. The percentile ranking shall be carried out to two decimal places.
- (3) **"S&P 500 Companies"** means all of the companies constituting the Standard & Poor's 500 Index as of the first and last day of the Performance Period (excluding the Company) and which continue to be actively traded under the same ticker symbol on an established securities market through the end of the Performance Period.
- (4) **"Total Shareholder Return" or "TSR"** means, for Delta and each of the S&P 500 Companies, (i) the change in the average closing market price of its common stock (as quoted in the principal market on which it is traded over the 20 trading days immediately preceding the first and last day of the Performance Period), plus dividends and other distributions paid, divided by (ii) the average closing market price over the 20 trading days immediately preceding the first day of the Performance Period, all of which are adjusted for any changes in equity structure, including,

without limitation, stock splits and stock dividends, and assuming that all cash dividends and cash distributions are immediately reinvested in common stock of the subject company using the closing market price on the ex-dividend date.

(v) Vesting.

(A) *General*. Subject to the terms of the Performance Compensation Plan, the 2020 LTIP and all other conditions included in any applicable Award Agreement, the Performance Award shall vest, as described in this Section 4(b)(v), as of the end of the Performance Period to the extent that the Company's actual performance results meet or exceed Threshold level with respect to TRASM Performance, Customer Service Performance, Return on Invested Capital and/or Cumulative Free Cash Flow, as applicable and as described below. For purposes of TRASM Performance, the Company's performance is compared against the Industry Group Average TRASM.

(B) *Committee's Authority*. In determining the TRASM for Delta and each member of the Industry Group and Return on Invested Capital and Cumulative Free Cash Flow for Delta, the Committee shall make such adjustments with respect to any subject company as is necessary to ensure the results are comparable, including, without limitation, differences or changes in accounting policies, standards, practices, guidelines, reclassifications or restatements (for example, fuel hedging, purchase accounting adjustments associated with mergers, acquisitions or divestitures, or fresh start accounting as a result of emergence from bankruptcy). In addition, with respect to determining Cumulative Free Cash Flow, the Committee may make such adjustments that are consistent with the manner in which Delta publicly discloses its Free Cash Flow in its earnings release for any applicable calendar year during the Performance Period. Without limiting the generality of the foregoing, the Committee shall (i) make such determinations based on financial data publicly disclosed by the subject company and (ii) exclude from any calculation any item of gain, loss or expense determined to be special or unusual in nature or infrequent in occurrence.

(C) *Impact of Certain Events*. A company shall be automatically removed from the Industry Group in the event that any of the following occur during or with respect to the Performance Period: (i) such company ceases to maintain or does not timely prepare publicly available statements of operations prepared in accordance with GAAP; (ii) such company is not the surviving entity in any merger, consolidation or other non-bankruptcy reorganization (or survives only as a subsidiary of an entity other than a previously wholly-owned subsidiary of such company); (iii) such company sells, leases or exchanges all or substantially all of its assets to any other person or entity (other than a previously wholly-owned subsidiary of such company); (iv) such company is dissolved and liquidated; or (v) more than 20% of such company's revenues (determined on a consolidated basis based on the regularly prepared and publicly available statements of operations of such company prepared in accordance with GAAP) for any fiscal year of such company are attributable to the operation of businesses other than such company's airline business and such company does not provide publicly available statements of operations with respect to its airline business that are separate from the statements of operations provided with respect to its other businesses.

(D) *Transactions Between Airlines.* To the extent reasonably practicable, in the event of a merger, consolidation or similar transaction during the Performance Period between Delta and any other airline, including a member of the Industry Group, or between any member of the Industry Group and any other airline, including another member of the Industry Group (an “**Airline Merger**”), TRASM for any such company involved in an Airline Merger will be calculated on a combined basis as if the Airline Merger had occurred on January 1, 2020, removing the effects of purchase accounting-related adjustments. Furthermore, to the extent reasonably practicable, in the event of an acquisition or divestiture or similar transaction during the Performance Period between Delta and any regional carrier or between any member of the Industry Group and any regional carrier (a “**Regional Carrier Transaction**”), TRASM and, as applicable, Return on Invested Capital for any such company involved in a Regional Carrier Transaction will be calculated to remove the impact of any reclassifications of costs from (or to) such company’s presentation of contract carrier expense to (or from) the other expense line items on the statement of operations (determined based on the regularly prepared and publicly available statements of operations of such company prepared in accordance with GAAP).

(E) *Vesting/Performance Measures/Relative TSR Performance Adjustment.* The payment, if any, a Participant will receive in connection with the vesting of the Performance Award will be based on the following:

| | Performance Measure | | | Weighting |
|---|------------------------------|----------------------------|-----------------------------|-----------|
| | Threshold (50% of Target) | Target (100% of Target) | Maximum (200% of Target) | |
| TRASM Performance | 108% | 110% | 112% | 25.0% |
| Customer Service Performance—Domestic | +0% points | +1.5% points | +2.5% points or greater | 12.50% |
| Customer Service Performance—International | | | | |
| Trans-Atlantic | +0.0% points | +1.5% points | +2.5% points or greater | 6.25% |
| Trans-Pacific | +0.0% points | +2.0% points | +4.0% points or greater | 3.125% |
| Latin America | +0.0% points | +1.5% points | +2.5% points or greater | 3.125% |
| Return on Invested Capital | 12.0% | 14.0% | 15.0% or greater | 25.0% |
| Cumulative Free Cash Flow | \$10.0 billion | \$12.0 billion | \$14.0 billion | 25.0% |

Any portion of a Performance Award that does not vest at the end of the Performance Period will immediately lapse and become void. Payouts based on the above performance measures will be straight-line interpolated when actual performance results fall above Threshold and below Target or above Target and below Maximum.

The payout with respect to any vested Performance Award will be increased or decreased based on the Company’s Relative TSR Performance, in accordance with the following:

| | Adjustment Percentage | | |
|--------------------------|---------------------------------------|--|--|
| | -10% | No Adjustment | +10%* |
| Relative TSR Performance | Below the 25 th percentile | Equal to or greater than the 25 th percentile but below the 75 th percentile | Equal to or greater than the 75 th percentile |

* Notwithstanding the actual Relative TSR Performance achieved, in no event shall the total payout of a Participant's Performance Award exceed 200% of Target.

(vi) *Timing of Payment.* The payout, if any, of any Performance Award that vests under Section 4(b)(v) will be made as soon after the end of the Performance Period as the payment amount can be finally determined, but in no event later than March 15, 2023, unless it is administratively impracticable to do so and such impracticability was not foreseeable at the end of 2022, in which case such payment shall be made as soon as administratively practicable after March 15, 2023.

(vii) *Accelerated Vesting/Forfeiture upon Termination of Employment.* The Performance Awards are subject to the following terms and conditions.

(A) *Without Cause or For Good Reason.* Upon a Participant's Termination of Employment by the Company without Cause or by the Participant for Good Reason (including the Termination of Employment of the Participant if he or she is employed by an Affiliate at the time the Company sells or otherwise divests itself of such Affiliate), subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, the Participant's target Performance Award will be recalculated and will be the result of the following formula (the "**Adjusted Performance Award**"): $S \times (T \div 36)$ where,

S = the portion of the Participant's target Performance Award as of the Grant Date; and

T = the number of calendar months from January 1, 2020 to the date of such Termination of Employment (rounded up for any partial month).

Thereafter, the Participant will be eligible to receive a payment, if any, in cash based on the Adjusted Performance Award which will vest and become payable under Section 4(b)(v) in the same manner and to the same extent as if the Participant's employment had continued.

(B) *Voluntary Resignation.* Upon a Participant's Termination of Employment by reason of a voluntary resignation (other than for Good Reason or Retirement) prior to the end of the workday on December 31, 2022, the Participant will immediately forfeit any unpaid portion of the Performance Award as of the date of such Termination of Employment. In the event a Participant incurs a Termination of

Employment by reason of a voluntary resignation (other than for Good Reason or Retirement) on or after January 1, 2023, subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, the Participant will remain eligible for any unpaid Performance Award, which award will vest and become payable under Section 4(b)(v) in the same manner and to the same extent as if the Participant's employment had continued.

(C) *Retirement.* Subject to Section 4(b)(vii)(F), upon a Participant's Termination of Employment due to Retirement, subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, the Participant's target Performance Award will be recalculated in accordance with the formula set forth in Section 4(b)(vii)(A). Thereafter, the Participant will be eligible to receive a payment, if any, in cash based on the Adjusted Performance Award which will vest and become payable under Section 4(b)(v) in the same manner and to the same extent as if the Participant's employment had continued.

(D) *Death or Disability.* Upon a Participant's Termination of Employment due to death or Disability, the Participant's Performance Award will immediately become vested at the target level and such amount will be paid in cash as soon as practicable thereafter to the Participant or the Participant's estate, as applicable.

(E) *For Cause.* Upon a Participant's Termination of Employment by the Company for Cause, the Participant will immediately forfeit any unpaid portion of the Performance Award as of the date of such Termination of Employment.

(F) *Retirement-Eligible Participants Who Incur a Termination of Employment for Other Reasons.* If a Participant who is eligible for Retirement is or would be terminated by the Company without Cause, such Participant shall be considered to have been terminated by the Company without Cause for purposes of the 2020 LTIP rather than having retired, but only if the Participant acknowledges that, absent Retirement, the Participant would have been terminated by the Company without Cause. If, however, the employment of a Participant who is eligible for Retirement is terminated by the Company for Cause, then, regardless of whether the Participant is considered as a retiree for purposes of any other program, plan or policy of the Company, for purposes of the 2020 LTIP, the Participant's employment shall be considered to have been terminated by the Company for Cause.

(viii) *Change in Control.* Notwithstanding the foregoing and subject to Section 5, upon a Participant's Termination of Employment by the Company without Cause or by the Participant for Good Reason (including the Termination of Employment of the Participant if he or she is employed by an Affiliate at the time the Company sells or otherwise divests itself of such Affiliate) on or after a Change in Control but prior to the second anniversary of such Change in Control, subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, the Participant's outstanding Performance Award shall immediately become vested at the target level and such amount will be paid in cash to the Participant as soon as practicable. With respect to any Participant who incurs a Termination of Employment by the Company without Cause or who resigns for Good Reason prior to a Change in Control, if a Change in Control occurs thereafter during the Performance Period, such

Participant's Adjusted Performance Award, will immediately become vested and be paid in cash to the Participant as soon as practicable.

(c) Restricted Stock Units

(i) Award Grant. A Participant may receive Restricted Stock Units as specified in the Participant's Award Agreement (the "RSU").

(ii) Grant Date. The Grant Date of the RSUs will be determined in accordance with the Company's Equity Award Grant Policy, as in effect from time to time, and set forth in the Participant's Award Agreement.

(iii) Risk of Forfeiture. Until an RSU becomes vested, a Participant will not be permitted to sell, exchange, assign, transfer or otherwise dispose of the RSU, and the RSU will be subject to forfeiture as set forth below.

(iv) Vesting. Subject to the terms of Performance Compensation Plan and the 2020 LTIP, the RSUs will vest with respect to one-third of the RSUs on each of the following dates: (A) February 1, 2021 ("**First RSU Installment**"), (B) February 1, 2022 ("**Second RSU Installment**") and (C) February 1, 2023 ("**Third RSU Installment**").⁴

As soon as practicable after any RSUs become vested, the Company shall pay to Participant in cash a lump sum amount equal to the number of RSUs vesting multiplied by the closing price of a Share of Common Stock on the New York Stock Exchange on the vesting date or, if the Common Stock was not traded on the New York Stock Exchange on the vesting date, the last date prior to the vesting date that the Common Stock was traded on the New York Stock Exchange.

(v) Accelerated Vesting; Forfeiture. The RSUs and the vesting provisions set forth in this Section 4(c) are subject to the following terms and conditions:

(A) *Without Cause or For Good Reason*. Upon a Participant's Termination of Employment by the Company without Cause or by the Participant for Good Reason (including the Termination of Employment of the Participant if he or she is employed by an Affiliate at the time the Company sells or otherwise divests itself of such Affiliate), subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, a number of RSUs equal to the Pro Rata RSU Portion will become immediately vested as of the date of such Termination of Employment. Upon a Participant's Termination of Employment by the Company without Cause or by the Participant for Good Reason, any unvested RSUs, other than the Pro Rata RSU Portion, shall be immediately forfeited.

⁴ The number of RSUs subject to each RSU Installment will be equal to the total number of RSUs divided by three; *provided*, that if this formula results in any fractional RSU allocation to any RSU Installment, the number of RSUs in the First RSU Installment and, if necessary, the Second RSU Installment, will be increased so that only full RSUs are covered by each RSU Installment. For example, if an RSU Award covers 1,000 RSUs, the RSUs will vest with respect to 334 RSUs under the First RSU Installment and 333 RSUs under each of the Second and Third RSU Installments.

“**Pro Rata RSU Portion**” means, with respect to any RSU Installment that is not vested at the time of a Participant’s Termination of Employment, the number of RSUs covered by such RSU Installment multiplied by a fraction (i) the numerator of which is the number of calendar months from the Grant Date to the date of such Termination of Employment, rounded up for any partial month and (ii) the denominator of which is twelve (12) for the First RSU Installment, twenty-four (24) for the Second RSU Installment and thirty-six (36) for the Third RSU Installment.⁵

(B) *Voluntary Resignation.* Upon a Participant’s Termination of Employment by reason of a voluntary resignation (other than for Good Reason or Retirement), any unvested portion of the RSUs shall be immediately forfeited.

(C) *Retirement.* Subject to Section (4)(c)(v)(F), upon a Participant’s Termination of Employment by reason of Retirement, with respect to any RSU Installment that is not then vested, subject to the Participant’s execution of a waiver and release of claims in a form and manner satisfactory to the Company, a number of RSUs equal to the Pro Rata RSU Portion will become immediately vested as of the date of such Termination of Employment. Pro Rata RSU Portion has the meaning set forth in Section 4(c)(v)(A). Upon a Participant’s Termination of Employment by reason of Retirement, any unvested RSUs, other than the Pro Rata RSU Portion, shall be immediately forfeited.

(D) *Death or Disability.* Upon a Participant’s Termination of Employment due to death or Disability, all unvested RSUs will immediately vest as of the date of such Termination of Employment.

(E) *For Cause.* Upon a Participant’s Termination of Employment by the Company for Cause, any unvested portion of the RSUs shall be immediately forfeited.

(F) *Retirement-Eligible Participants Who Incur a Termination of Employment for Other Reasons.* If a Participant who is eligible for Retirement, is or would be, terminated by the Company without Cause, such participant shall be considered to have been terminated by the Company without Cause for purposes of this Agreement rather than having retired, but only if the Participant acknowledges, that absent Retirement, the Participant would have been terminated by the Company without Cause. If, however, the employment of a Participant who is eligible for Retirement is terminated by the Company for Cause, then regardless of whether the Participant is considered a retiree for purposes of any other program, plan or policy of the Company, for purposes of this Agreement, the Participant’s employment shall be considered to have been terminated by the Company for Cause.

⁵ If this formula results in any fractional RSUs, the Pro Rata RSU Portion will be rounded up to the nearest whole RSU.

(vi) Change in Control. Notwithstanding the foregoing and subject to Section 5, upon a Participant's Termination of Employment by the Company without Cause or by the Participant for Good Reason (including the Termination of Employment of the Participant if he or she is employed by an Affiliate at the time the Company sells or otherwise divests itself of such Affiliate) on or after a Change in Control, but prior to the second anniversary of such Change in Control, subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, any unvested portion of the RSUs will immediately vest as of the date of such Termination of Employment.

(vii) Dividend Equivalents. In the event a cash dividend shall be paid with respect to Shares at a time the RSUs have not vested, the Participant shall be eligible to receive, upon the vesting of the RSUs, a cash payment equal to the amount of the cash dividend per Share multiplied by the number of RSUs held by the Participant. The vesting provisions under Section 4(c)(iv) shall apply to any such dividend equivalent.

(d) Stock Option

(i) Award Grant. A Participant may receive a Non-Qualified Stock Option covering the number of Shares as specified in the Participant's Award Agreement (the "**Option**").

(ii) Grant Date. The Grant Date of the Option will be determined by the Committee in accordance with the Company's Equity Award Grant Policy, as in effect from time to time, and set forth in a Participant's Award Agreement.

(iii) Exercise Price. The exercise price of the Option is the closing price of a Share on the New York Stock Exchange on the Grant Date.

(iv) Exercise Period/Performance Measures. Subject to the terms of the Performance Compensation Plan and the 2020 LTIP, an Option shall:

(A) vest and become exercisable upon the achievement of either of the following two performance measures in the proportion and on the dates (each an "**Option Installment Vesting Date**") set forth below:

- (1) If there is a payout under the Company's broad-based employee profit sharing program (the "**Profit Sharing Program**") for 2020, the Option shall vest and become exercisable with respect to one-third of the Shares on each of the following dates: (I) February 1, 2021 (the "**First Option Installment**"), (II) February 1, 2022 (the "**Second Option Installment**") and (III) February 1, 2023 (the "**Third Option Installment**"); or
- (2) If there is no payout under the Profit Sharing Program for 2020, but there is a payout under the Profit Sharing Program for 2021, the Option shall vest and become exercisable with respect to (I) the First and Second Option Installments on February 1, 2022 and (II) the Third Option Installment on February 1, 2023; and

(B) be exercisable through and including the day immediately preceding the tenth anniversary of the Grant Date (the “**Expiration Date**”).

In the event there is no Profit Sharing Program payout for either 2020 or 2021, the Option shall be immediately forfeited (regardless of whether there is a Profit Sharing Program payout for 2022).

(v) *Change in Exercisability and Exercise Period upon Termination of Employment.* The exercisability of the Option and the exercise period set forth in Section 4(d)(iv) are subject to the following terms and conditions:

(A) *Without Cause or For Good Reason.* Upon a Participant’s Termination of Employment by the Company without Cause or by the Participant for Good Reason (including the Termination of Employment of the Participant if he or she is employed by an Affiliate at the time the Company sells or otherwise divests itself of such Affiliate), subject to the Participant’s execution of a waiver and release of claims in a form and manner satisfactory to the Company, the Pro Rata Option Portion of any Option Installment that is not exercisable at the time of such Termination of Employment (1) will vest and become exercisable, if applicable, under Section 4(d)(iv) in the same manner and to the same extent as if the Participant’s employment had continued and (2) the entire then-exercisable portion of the Option, as applicable, shall be exercisable during the period: (I) beginning on the applicable Option Installment Vesting Date and (II) ending on the earlier of (x) the later of the third anniversary of (i) such Termination of Employment or (ii) the applicable Option Installment Vesting Date or (y) the Expiration Date. Upon a Participant’s Termination of Employment by the Company without Cause or by the Participant for Good Reason, any portion of the Option that is not exercisable at the time of such Termination of Employment, other than the Pro Rata Option Portion, shall be immediately forfeited.

“**Pro Rata Option Portion**” means, with respect to any Option Installment that is not exercisable at the time of a Participant’s Termination of Employment, the number of Shares covered by such Option Installment multiplied by a fraction (i) the numerator of which is the number of calendar months from the Grant Date to the date of such Termination of Employment, rounded up for any partial month and (ii) the denominator of which is twelve (12) for the First Option Installment, twenty-four (24) for the Second Option Installment, and thirty-six (36) for the Third Option Installment.⁶

(B) *Voluntary Resignation.* Upon a Participant’s Termination of Employment by reason of a voluntary resignation (other than for Good Reason or Retirement): (1) any portion of the Option that is not exercisable at the time of such Termination of Employment shall be immediately forfeited and (2) any portion of the Option that is exercisable at the time of such Termination of Employment shall remain exercisable until the earlier of (I) 90 days after such Termination of Employment or (II) the Expiration Date.

⁶ If this formula results in any fractional Option, the Pro Rata Option Portion will be rounded up to the nearest whole Option.

(C) *Retirement.* Subject to Section 4(d)(v)(F), upon a Participant's Termination of Employment by reason of Retirement, subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, the Pro Rata Option Portion of any Option Installment that is not exercisable at the time of such Termination of Employment (1) will vest and become exercisable, if applicable, under Section 4(d)(iv) in the same manner and to the same extent as if the Participant's employment had continued and (2) the entire then exercisable portion of the Option shall be exercisable during the period: (I) beginning on the applicable Option Installment Vesting Date and (II) ending on the Expiration Date. Pro Rata Option Portion has the meaning set forth in Section 4(d)(v)(A). Upon the Participant's Termination of Employment by reason of Retirement, any portion of the Option that is not exercisable at the time of such termination, other than the Pro Rata Option Portion, shall be immediately forfeited.

(D) *Death or Disability.* Upon a Participant's Termination of Employment due to death or Disability, any Option Installment that is not exercisable at the time of such Termination of Employment shall vest and become exercisable and the then exercisable portion of the Option shall be exercisable during the period: (1) beginning on the date of such Termination of Employment and (2) ending on (I) if due to Disability, the earlier of (i) the third anniversary of such Termination of Employment and (ii) the Expiration Date or (II) if due to death, the Expiration Date.

(E) *For Cause.* Upon a Participant's Termination of Employment by the Company for Cause, any unexercised portion of the Option shall be immediately forfeited, including any portion that was then exercisable.

(F) *Retirement-Eligible Participants Who Incur a Termination of Employment for Other Reasons.* If a Participant who is eligible for Retirement is or would be terminated by the Company without Cause, such Participant shall be considered to have been terminated by the Company without Cause for purposes of the 2020 LTIP rather than having retired, but only if the Participant acknowledges that, absent Retirement, the Participant would have been terminated by the Company without Cause. If, however, the employment of a Participant who is eligible for Retirement is terminated by the Company for Cause, then regardless of whether the Participant is considered as a retiree for purposes of any other program, plan or policy of the Company, for purposes of the 2020 LTIP, the Participant's employment shall be considered to have been terminated by the Company for Cause.

(vi) *Change in Control.* Notwithstanding the foregoing and subject to Section 5, upon a Participant's Termination of Employment by the Company without Cause or by the Participant for Good Reason (including the Termination of Employment of the Participant if he or she is employed by an Affiliate at the time the Company sells or otherwise divests itself of such Affiliate) on or after a Change in Control but prior to the second anniversary of such Change in Control, subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, any Option Installment that is not exercisable at the time of such Termination of Employment shall vest and become exercisable, and the entire then-exercisable portion of the Option shall be exercisable during the period (1) beginning on the date of such Termination of Employment and (2) ending on the earlier of (I) the third anniversary of such Termination of Employment or (II) the Expiration Date.

5. Fractions. Any calculation under the 2020 LTIP that results in a fractional amount will be rounded up to two decimal points.

6. Potential Reduction in Payments Due to Excise Tax. In the event that a Participant becomes entitled to benefits under the 2020 LTIP, then such benefits, together with any payment or consideration in the nature of value or compensation to or for the Participant's benefit under any other agreement with or plan of Delta, shall be subject to reduction as set forth in Section 4(e) of the Delta Air Lines, Inc. Officer and Director Severance Plan, which relates to the excise tax under Section 4999 of the Code.

7. Clawback. Notwithstanding anything to the contrary in the 2020 LTIP and subject to further amendment of this Section 6 to the extent required to be in compliance with any applicable law or regulations or Delta's internal clawback policy, as it may be amended from time to time, if the Committee determines that a vice president or more senior officer Participant has engaged in fraud or misconduct that caused, in whole or in part, the need for a required restatement of Delta's financial statements filed with the SEC, the Committee will review all incentive compensation awarded to or earned by the Participant, including, without limitation, any Award under the 2020 LTIP, with respect to fiscal periods materially affected by the restatement and may recover from the Participant all such incentive compensation to the extent that the Committee deems appropriate after taking into account the relevant facts and circumstances. Any recoupment hereunder may be in addition to any other remedies that may be available to Delta under applicable law, including, disciplinary action up to and including termination of employment.

8. Section 409A of the Code. To the extent required to be in compliance with Section 409A of the Code, and the regulations promulgated thereunder (together, "**Section 409A**"), notwithstanding any other provision of the 2020 LTIP or the Performance Compensation Plan, (a) any payment or benefit to which a Participant is eligible under the 2020 LTIP, including a Participant who is a "specified employee" as defined in Section 409A, shall be adjusted or delayed and (b) any term of the 2020 LTIP may be adjusted in such manner as to comply with Section 409A and maintain the intent of the 2020 LTIP to the maximum extent possible. More specifically, to the extent any payment provided to a Participant under the 2020 LTIP constitutes non exempted deferred compensation under Section 409A and the Participant is at the time of his termination of employment considered to be a "specified employee" pursuant to the Company's policy for determining such employees, the payment of any such non exempted amount and the provision of such non exempted benefits will be delayed for six months following the Participant's separation from service. Notwithstanding the foregoing, Delta shall not have any liability to any Participant or any other person if any payment is determined to constitute "nonqualified deferred compensation" within the meaning of Section 409A and does not satisfy the additional conditions applicable to nonqualified deferred compensation under Section 409A.

DELTA AIR LINES, INC.
2020 MANAGEMENT INCENTIVE PLAN

1. Purpose. The 2020 Management Incentive Plan (the “**MIP**”) is an annual incentive program sponsored by Delta Air Lines, Inc. (“**Delta**” or the “**Company**”) that is intended to closely: (a) link pay and performance by providing management employees with a compensation opportunity based on Delta achieving key business plan goals in 2020 and (b) align the interests of management employees with the Company’s other employees and stakeholders.

The MIP is being adopted under, and is subject to the terms of, the Delta Air Lines, Inc. Performance Compensation Plan (the “**Performance Compensation Plan**”).

Capitalized terms that are used but not defined in the MIP shall have the meaning ascribed to them in the Performance Compensation Plan.

2. Plan Administration. (a) The Personnel & Compensation Committee of the Board of Directors (the “**Committee**”) shall be responsible for the general administration and interpretation of the MIP and for carrying out its provisions. The Committee shall have such powers as may be necessary to discharge its duties hereunder, including, without limitation, the following powers and duties, but subject to the terms of the MIP:

(i) authority to construe and interpret the terms of the MIP and to determine eligibility, awards and the amount, manner and time of payment of any awards hereunder;

(ii) authority to prescribe forms and procedures for purposes of MIP participation and distribution of awards;

(iii) authority to adopt rules and regulations and to take such actions as it deems necessary or desirable for the proper administration of the MIP, which authority may be delegated to the Company’s Chief People Officer; and

(iv) authority at any time prior to a Change in Control to eliminate or reduce the actual payout to any Participant in the MIP.

(b) Any rule or decision by the Committee (or its delegate) that is not inconsistent with the provisions of the MIP shall be conclusive and binding on all persons and shall be given the maximum deference permitted by law.

(c) Notwithstanding any provision of the 2020 MIP or the Performance Compensation Plan to the contrary, the minimum amount of total MIP Awards payable to eligible Participants (the “**Minimum Amount**”) may be fixed by the Committee (or its delegate) on or prior to December 31, 2020, but in no event earlier than December 1, 2020. Once so determined by the Committee (or its delegate), the Minimum Amount shall not be further reduced or eliminated at any time thereafter. Any portion of the Minimum Amount allocated to such Participants that may be forfeited pursuant to the terms of the 2020 MIP shall be reallocated among the other eligible Participants.

3. Eligibility. All Delta employees worldwide who are officers, managing directors (grade 13), directors (grade 12), general managers (grade 11), grade 10, grade 9S, grade 8, grade 7S or international frontline leaders (other than employees who participate in a sales incentive plan or other major functional incentive plan, as may be in effect from time to time) are eligible to participate in the MIP (“**Participants**”).

4. MIP Awards.

(a) *General.* The MIP award (the “**MIP Award**”) each Participant receives, if any, will be based on: (i) the Participant’s Target MIP Award, as defined below; (ii) the level of achievement within each applicable performance measure; and (iii) the occurrence of a payout for 2020 under the Company’s broad-based employee profit sharing program (the “**Profit Sharing Program**”), as described below. Certain additional requirements will apply to any Participant who is employed by the Company as an executive vice president or more senior officer of the Company (“**Executive Officer Participant**”), as discussed in Section 7(b).

(b) *Performance Measures.* The performance measures used will be one or more of financial, operational (“**Operational Performance**”), leadership effectiveness (“**Leadership Effectiveness Performance**”) and individual performance (“**Individual Performance**”). Financial performance will be comprised of two separate measures, one based solely on the Company’s performance (“**Absolute Financial Performance**”) and the other based on the Company’s performance relative to a comparator group (“**Relative Financial Performance**”). Achievement under each performance measure may range from below threshold, at which there is no payout, to the maximum performance level, at which the payout will be greater than the target level, subject to Section 4(c).

(c) *Interaction with Profit Sharing Program and Individual Performance Measure.* If there is no payout under the Profit Sharing Program for 2020, (i) no amount will be paid with respect to Absolute Financial Performance to any Participant regardless of whether Delta meets or exceeds that performance measure and (ii) for general manager level (grade 11) Participants and above, the actual MIP Award, if any, will not exceed such Participant’s Target MIP Award (as defined below). In addition, if a Participant’s performance under the Individual Performance Measure (applicable to Participants who are not officers) is not satisfactory, no amount will be paid with respect to Absolute Financial Performance, Relative Financial Performance and/or Operational Performance to such Participant regardless of whether Delta meets or exceeds those performance measures.

(d) *Target MIP Awards.* The Target MIP Award for each Participant will be expressed as a percentage of the Participant’s Base Salary (the “**Target MIP Award**”) as determined by the Committee and will be communicated to Participants in such manner as the Committee deems appropriate. “**Base Salary**” means the actual base salary earned by a Participant during 2020.

5. Weighting of Performance Measures. Subject to Section 8, a percentage of each Participant’s Target MIP Award is allocated to one or more of Absolute Financial Performance, Relative Financial Performance, Operational Performance, Leadership Effectiveness Performance and/or Individual Performance based on the Participant’s employment level, as follows:

| Performance Measures and Weightings | | | | | |
|--|---|---|--|---|---|
| Employment Level | % of Target MIP Award allocated to Absolute Financial Performance | % of Target MIP Award allocated to Relative Financial Performance | % of Target MIP Award allocated to Operational Performance | % of Target MIP Award allocated to Leadership Effectiveness Performance | % of Target MIP Award allocated to Individual Performance |
| CEO | 50% | 25% | 25% | 0% | 0% |
| President/SEVP | 50% | 25% | 25% | 0% | 0% |
| EVP | 50% | 25% | 25% | 0% | 0% |
| SVP –Fleet & Technical Procurement and SVP – CM&CO | 50% | 25% | 25% | 0% | 0% |
| SVP | 50% | 15% | 25% | 10% | 0% |
| VP | 50% | 15% | 25% | 10% | 0% |
| Managing Director (Grade 13) | 35% | 10% | 15% | 0% | 40% |
| Director (Grade 12) | 35% | 10% | 15% | 0% | 40% |
| General Manager (Grade 11) | 25% | 10% | 15% | 0% | 50% |
| Grades 10, 9S, 8 and 7S | 0% | 0% | 0% | 0% | 100% |

6. The Performance Measures—Threshold, Target and Maximum Payout Levels. The Target MIP Award and the amounts paid in connection with target levels of Absolute Financial, Relative Financial, Operational, Leadership Effectiveness and Individual Performances, are based on the achievement of the target performance level with respect to each applicable performance measure (except that Absolute Financial Performance also requires a payout under the Profit Sharing Program for 2020). A Participant’s actual MIP Award may be greater or less than the target amount based on whether performance under one or more of the performance measures applicable to the Participant exceeds or is below target performance, subject to Section 4(c). This is explained in more detail below.

(a) *Absolute Financial Performance Measure.* The Absolute Financial Performance measure for 2020 is based on Delta’s Pre-Tax Income (as defined below). The following table describes the performance ranges and award payout levels for 2020 Absolute Financial Performance, subject to Section 4(c):

| | Threshold | Target | Maximum |
|---|-----------------|-----------------|-----------------|
| % of Target Absolute Financial Performance Measure Paid | 50% | 100% | 200% |
| Required 2020 Pre-Tax Income | \$6,969 Million | \$8,341 Million | \$8,991 Million |

Payouts will be interpolated when Pre-Tax Income results fall above Threshold and below Target or above Target and below Maximum. **“Pre-Tax Income”** will be the amount of Pre-Tax Income, if any, determined under the Profit Sharing Program for 2020.¹

(b) *Relative Financial Performance Measure*. The Relative Financial Performance measure will be measured based on the comparison of Delta’s Annual Pre-Tax Income Margin for the 2020 calendar year relative to the Composite Performance of the members of the Industry Composite Group for the 2020 calendar year (as such capitalized terms are defined below). The following table describes the performance ranges and payout levels for 2020 Relative Financial Performance, subject to Section 4(c):

| | Threshold | Target | Maximum |
|---|---|---|---|
| <i>% of Target Relative Financial Performance Measure Paid</i> | 50% | 100% | 200% |
| Delta’s 2020 Annual Pre-Tax Income Margin relative to Composite Performance of Industry Composite Group for the same period | +2.0 points above Composite Performance | +3.0 points above Composite Performance | +4.0 points above Composite Performance |

Payouts based on Relative Financial Performance will be straight-line interpolated when actual performance results fall above Threshold and below Target or above Target and below Maximum.

“Annual Pre-Tax Income Margin” for Delta and each member of the Industry Composite Group shall be calculated by using the subject company’s Pre-Tax Income and Total Operating Revenue for the 2020 calendar year and the following formula: $(A \div B)$, where:

A = Pre-Tax Income for 2020; and

B = Total Operating Revenue for 2020.

“Composite Performance” means, for purposes of determining the total Annual Pre-Tax Income Margin for the Industry Composite Group, the result obtained by treating the members of the Industry Composite Group as if they were one combined entity.

¹ The Profit Sharing Program for 2020 defines “Pre-Tax Income” as follows: for any calendar year, the Company’s consolidated pre-tax income calculated in accordance with Generally Accepted Accounting Principles in the United States (“GAAP”) and as reported in the Company’s public securities filings, but excluding: (a) all asset write downs related to long term assets; (b) gains or losses with respect to employee equity securities; (c) gains or losses with respect to extraordinary, one-time or nonrecurring items; and (c) expense accrued with respect to the Profit Sharing Program.

“Industry Composite Group” means Alaska Air Group, Inc., American Airlines Group, Inc., JetBlue Airways Corporation, Southwest Airlines, Co., and United Continental Holdings, Inc.

“Pre-Tax Income” means the subject company’s consolidated pre-tax income based on its regularly prepared and publicly available statements of operations prepared in accordance with GAAP, but excluding mark-to-market adjustments.

“Total Operating Revenue” means the subject company’s total operating revenue based on its regularly prepared and publicly available statements of operations prepared in accordance with GAAP; *provided*, with respect to Delta, Total Operating Revenue shall exclude the portion of revenue associated with refinery sales to third parties net of exchange.

In determining the Annual Pre-Tax Income Margin for Delta and each member of the Industry Composite Group, the Committee shall make such adjustments with respect to any subject company as is necessary to ensure the results are comparable, including, without limitation, differences or changes in accounting policies, standards, practices, guidelines, reclassifications or restatements (for example, fuel hedging, purchase accounting adjustments associated with mergers, acquisitions or divestitures, or fresh start accounting as a result of emergence from bankruptcy). Without limiting the generality of the foregoing, the Committee shall (i) make such determinations based on financial data filed by the subject company with the U.S. Securities and Exchange Commission or otherwise and (ii) exclude from any calculation any item of gain, loss or expense determined to be special or unusual in nature or infrequent in occurrence.

A company shall be automatically removed from the Industry Composite Group in the event that any of the following occur during or with respect to the 2020 calendar year: (i) such company ceases to maintain or does not timely prepare publicly available statements of operations prepared in accordance with GAAP; (ii) such company is not the surviving entity in any merger, consolidation or other non-bankruptcy reorganization (or survives only as a subsidiary of an entity other than a previously wholly-owned subsidiary of such company); (iii) such company sells, leases or exchanges all or substantially all of its assets to any other person or entity (other than a previously wholly owned subsidiary of such company); (iv) such company is dissolved and liquidated; or (v) more than 20% of such company's revenues (determined on a consolidated basis based on the regularly prepared and publicly available statements of operations of such company prepared in accordance with GAAP) for any fiscal year of such company are attributable to the operation of businesses other than such company's airline business and such company does not provide publicly available statements of operations with respect to its airline business that are separate from the statements of operations provided with respect to its other businesses.

To the extent reasonably practicable, in the event of a merger, consolidation or similar transaction during the 2020 calendar year between Delta and any other airline, including a member of the Industry Composite Group, or between any member of the Industry Composite Group and any other airline, including another member of the Industry Composite Group (an **“Airline Merger”**), Annual Pre-Tax Income Margin for any such company involved in an Airline Merger will be calculated on a combined basis as if the Airline Merger had occurred on January 1, 2020, removing the effects of purchase accounting-related adjustments. Furthermore, to the extent reasonably practicable, in the event of an acquisition or divestiture or similar transaction during 2020 calendar year between Delta and any regional carrier or between any member of the Industry Composite Group and any regional carrier (a **“Regional Carrier Transaction”**), Annual Pre-Tax Income Margin for any such company involved in a Regional Carrier Transaction will be

calculated to remove the impact of any reclassifications of costs from (or to) such company's presentation of contract carrier expense to (or from) the other expense line items on the statement of operations (determined based on the regularly prepared and publicly available statements of operations of such company prepared in accordance with GAAP).

(c) *Operational Performance Measures.* The Operational Performance measures for 2020 are based on both Delta and Delta Connection operational performance, with (i) Delta's operational performance accounting for 75% of the measure and (ii) Delta Connection performance accounting for 25% of the measure. Delta's Operational Performance is based on the number of times during 2020 that Delta meets or exceeds its monthly goals under the broad-based employee shared rewards program (the "**Shared Rewards Program**"). Delta Connection's Operational Performance is based on the number of times during 2020 that the Delta Connection carriers meet or exceed their monthly operational goals for (x) completion factor and (y) on-time arrival performance (the "**Delta Connection Goals**"). The Delta Connection Goals and the methodology for determining whether these goals are met are described in **Exhibit A** hereto. The following table describes the performance ranges and award payout levels for 2020 Operational Performance, subject to Section 4(c):

| | Threshold | Target | Maximum |
|---|-----------|--------|------------|
| Shared Rewards Program | | | |
| <i>% of Target Payout for this Performance Measure (75% Weighting)</i> | 37.50% | 75% | 150% |
| Number of monthly Shared Rewards Program goals actually met during 2020 | 21 | 28 | 35 or more |
| Delta Connection Goals | | | |
| <i>% of Target Payout for this Performance Measure (25% Weighting)</i> | 12.50% | 25% | 50% |
| Number of Delta Connection Goals actually met during 2020 | 9 | 14 | 19 or more |

Payouts based on the Shared Rewards Program and Delta Connection Goals will be straight-line interpolated when actual performance results fall above Threshold and below Target or above Target and below Maximum.

(d) *Leadership Effectiveness Performance Measure.* The Leadership Effectiveness Performance measure (generally applicable to Participants who are vice presidents or senior vice presidents) for 2020 will be based on an evaluation of whether a Participant has demonstrated leadership attributes and results during 2020, including, among other things, supporting diversity and inclusion, providing talent management, meeting financial and headcount budget, improving employee engagement and being a role model for the Rules of the Road. The performance ranges and award payout levels will be determined by the Committee, subject to Section 4(c).

(e) *Individual Performance Measure.* The Individual Performance measure (applicable to Participants who are not officers) is generally determined by each Participant's performance evaluation at the end of 2020. The performance ranges and award payout levels will be determined by the Committee, subject to Section 4(c).

7. Timing of Award Payments.

(a) *In General.* Subject to Sections 7(b) and 8(a), any payouts to a Participant under the MIP for 2020 will be made in cash as soon as practicable after (i) the Committee certifies the achievement of the required Absolute Financial Performance, Relative Financial Performance and Operational Performance results and (ii) where applicable, Leadership Effectiveness Performance results have been determined and individual performance has been evaluated, but in no event later than March 15, 2021, unless it is administratively impracticable to do so, and such impracticability was unforeseeable at the end of 2020, in which case such payment shall be made as soon as administratively practicable after March 15, 2021. Further, unless a payout for 2020 under the Profit Sharing Program occurs after March 15, 2021, any payout under the 2020 MIP will not be made prior to a payout for 2020 under the Profit Sharing Program; *provided, however*, if it is determined there will be no payout for 2020 under the Profit Sharing Program, any MIP Awards that are payable based on Relative Financial Performance, Operational Performance, Leadership Effectiveness Performance or Individual Performance will be paid as soon as practicable thereafter, but in no event later than March 15, 2021, unless it is administratively impracticable to do so, and such impracticability was unforeseeable at the end of 2020, in which case such payment shall be made as soon as administratively practicable after March 15, 2021.

(b) *Executive Officer Participants.* Payouts under the MIP to Participants who, as of December 31, 2020, are Executive Officer Participants will be subject to the following terms and conditions:

(i) Payment in Restricted Stock. If there is no payout under the Profit Sharing Program for 2020, any payout under the MIP to an Executive Officer Participant will be made in shares of Restricted Stock rather than in cash, with the number of shares of Restricted Stock being equal to the result of the following formula (“**MIP Restricted Stock**”): $(A \div B)$, where²:

A = the amount of the payout to the Executive Officer Participant under the MIP had the payout been made in cash; and

B = the closing price of a Share on the New York Stock Exchange on the later of (1) the date that the Committee approves the payouts, if any, to the Executive Officer Participants under the MIP following the Committee’s certification of the achievement of the required performance measures as described in Section 7(a) and (2) the third business day following the date on which the Company publicly announces its annual financial results if this date is scheduled in the same month that the Committee approves such payouts, if any.

² If this formula results in any fractional share, the MIP Restricted Stock will be rounded up to the next highest ten shares.

(ii) Lapsing of Restrictions; Forfeiture. Until the restrictions imposed by this Section 7(b)(ii) (the “**Restrictions**”) have lapsed pursuant to the terms below, an Executive Officer Participant will not be permitted to sell, exchange, assign, transfer or otherwise dispose of the MIP Restricted Stock, and the MIP Restricted Stock will be subject to forfeiture as set forth below.

(A) The Restrictions shall lapse and be of no further force or effect on the earlier of the date (1) there is a payout under the Profit Sharing Program unless, prior to such payout, the Executive Officer Participant incurs a Disqualifying Termination of Employment or (2) an Executive Officer Participant incurs a Qualifying Termination of Employment. The MIP Restricted Stock will be immediately forfeited if, prior to the lapsing of the Restrictions, the Executive Officer Participant incurs a Disqualifying Termination of Employment.

(B) “**Disqualifying Termination of Employment**” means an Executive Officer Participant’s Termination of Employment by the Company for Cause.

(C) “**Qualifying Termination of Employment**” means an Executive Officer Participant’s Termination of Employment (1) by the Company without Cause or (2) due to death or Disability.

(D) For purposes of this Section 7(b)(ii), if an Executive Officer Participant incurs a Termination of Employment by reason of (1) a voluntary resignation (including the Termination of Employment by the Participant if he or she is employed by an Affiliate at the time the Company sells or otherwise divests itself of such Affiliate) or (2) Retirement, the Restrictions shall lapse and be of no further force or effect on the date there is a payout under the Profit Sharing Program as if such Executive Officer Participant’s employment had continued through such date.

(iii) Dividends. In the event a cash dividend shall be paid in respect of Shares at a time the Restrictions on the MIP Restricted Stock have not lapsed, the Participant shall be eligible to receive the dividend upon the lapse of the Restrictions. The Restrictions shall apply to any such dividend.

(iv) Performance Compensation Plan; Written Notice. The MIP Restricted Stock will otherwise be subject to the terms of the Performance Compensation Plan. In the event any Executive Officer Participant’s MIP Award is converted to MIP Restricted Stock, such Participant will receive a written notice of such conversion with the details thereof as soon as practicable after the MIP payment date.

8. Change in Employment Status.

(a) Termination of Employment.

(i) *A Termination Event in 2020—General*. Except as expressly set forth in this Section 8, in the event a Participant’s employment with Delta terminates for any reason prior to the end of the workday on December 31, 2020, such Participant will be ineligible for any award under the MIP. In other words, if a Participant is employed according to Company

records through the end of the workday on December 31, 2020, the Participant will be eligible for any award earned under the MIP for 2020, including, if applicable, MIP Restricted Stock.

(ii) *Termination on or after January 1, 2021.* Subject to Section 7(b), a Participant who incurs a Termination of Employment for any reason other than for Cause on or after January 1, 2021 will remain eligible for any unpaid MIP Award, which award will be paid according to the terms of Section 7(a). A Participant who is terminated by the Company for Cause on or after January 1, 2021 will forfeit any unpaid MIP Award.

(iii) *Pro-Rated MIP Awards.*

(A) *Disability or Retirement.* This Section 8(a)(iii)(A) applies to any Participant who incurs a Termination of Employment prior to January 1, 2021 due to the Participant's Disability or Retirement. Subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, such Participant will be eligible to receive a MIP Award based on the Participant's Base Salary determined as of his or her Termination of Employment date, but otherwise in the same manner, to the same extent and at the same time as the Participant would have received such MIP Award if such Participant's employment had continued through December 31, 2020 (*i.e.*, based on achievement of applicable performance measures). The Individual Performance Measure will be calculated based on target level performance, or, at the discretion of the Company, a higher level based on the Participant's most recent performance evaluation prior to the Termination of Employment.

(B) *Termination of Employment Without Cause or Resulting in Benefits under the Severance Plans.* This Section 8(a)(iii)(B) applies to any Participant who incurs a Termination of Employment prior to January 1, 2021 due to either (1) a Termination of Employment by the Company without Cause or (2) for any other reason that entitles such Participant to benefits under the Delta Air Lines, Inc. Officer and Director Severance Plan or any other Company-sponsored severance plan in which a Participant is eligible to participate (the "**Severance Plans**"). Subject to the Participant's execution of a waiver and release of claims in a form and manner satisfactory to the Company, such Participant will be eligible to receive a MIP Award based on the Participant's Base Salary determined as of his or her Termination of Employment date, but otherwise in the same manner, to the same extent and at the same time as the Participant would have received such MIP Award if such Participant's employment had continued through December 31, 2020 (*i.e.*, based on achievement of applicable performance measures). The Individual Performance Measure will be calculated based on target level performance, or, at the discretion of the Company, a higher level based on the Participant's most recent performance evaluation prior to the Termination of Employment.

(C) *Death.* This Section 8(a)(iii)(C) applies to any Participant who incurs a Termination of Employment prior to January 1, 2021 due to the Participant's death. The Participant's estate will be eligible to receive a payment equal to the Participant's Target MIP Award determined as of his or her Termination of Employment date made in cash as soon as practicable

after the Participant's Termination of Employment, but in no event later than 2½ months following the end of the year in which the Termination of Employment occurs.

(b) **Other Changes in Employment Status.** The terms of this Section 8(b) shall apply to circumstances involving new hires, promotions, demotions, transfers or leaves of absence during 2020. After a Participant's Target MIP Award is determined under this Section 8(b), the appropriate weighting of performance measures will apply to each portion of such Target MIP Award as set forth in Section 5. The end of year performance evaluation will apply to any Individual Performance measure applicable to the Participant unless the Participant is no longer subject to the such evaluation process after the change in employment status, in which case the most recent performance evaluation will apply. Any MIP Awards payable under this Section 8(b) will be paid at the same time and in the same manner as such awards are paid to active Participants, subject to Section 7(b).

(i) *New Hires.* With respect to any individual who becomes employed by Delta in a MIP-eligible position during 2020 but after January 1, 2020, such individual will be a Participant in the MIP and will be eligible to receive an award under the MIP for 2020.

(ii) *Promotions.* Participants who are either promoted into a MIP-eligible employment level or promoted into a higher level of MIP participation during 2020 will have their Target MIP Award calculated based on their Base Salary earned during each MIP-eligible employment level, multiplied by the relevant total target award percentage applicable to their position or positions during 2020.

(iii) *Demotions.* Participants who are either demoted to a position that is not eligible to participate in the MIP or demoted to a lower level of MIP participation during 2020 will have their Target MIP Award calculated based on their Base Salary earned during each MIP-eligible job level, multiplied by the relevant total target award percentage applicable to their position or positions during 2020.

(iv) *Transfers.* In the event that during 2020, a Participant transfers employment from Delta to a Delta subsidiary or Affiliate that does not participate in the MIP, the Participant will have his or her Target MIP Award calculated based on his or her Base Salary earned as of the date immediately prior to the date the transfer is considered effective for purposes of the MIP, multiplied by the relevant total target award percentage applicable to his or her MIP-eligible position.

(v) *Leaves of Absence.* In the event that during 2020, a Participant goes on any type of leave at any time during 2020, the Participant will have his Target MIP Award calculated, subject to Section 8(b)(vi), based on his or her Base Salary earned during 2020 while actively employed, multiplied by the relevant total target award percentage applicable to his or her MIP-eligible position.

(vi) *Military Leave*. In the event that at any time during 2020, a Participant is on a Military Leave of Absence, his or her Base Salary shall be equal to the Base Salary the Participant earned during 2020 plus any amount of base salary such Participant would have earned had he or she been actively employed by Delta in any corresponding MIP-eligible position during such leave. **“Military Leave of Absence”** means a Participant’s absence from his or her position of employment at any time during 2020 because of service in the uniformed services, as defined under the Uniformed Services Employment and Reemployment Rights Act of 1994, as amended (“USERRA”); *provided*, that a Participant must provide the Company appropriate evidence that his or her absence was due to service in the uniformed services and the period of such service in order to be considered to be on a Military Leave of Absence for purposes of the MIP. For purposes of the MIP, any Participant who is absent due to military service (according to Delta’s records) as of December 31, 2020 and has been on such leave for a cumulative period (during the period he or she has been employed by Delta) of five years or less, will be presumed to be on a Military Leave of Absence. Any Participant who is similarly absent due to military service (based on Delta’s records) and who has been on such leave for a period of more than five years will not be considered to be on a Military Leave of Absence until he or she provides appropriate evidence that he or she is entitled to an exception to the five-year limit on uniformed service as set forth in USERRA.

9. Treatment of Payments Under Benefit Plans or Programs. MIP payments, which for an Executive Officer Participant who receives MIP Restricted Stock means the amount of the payout to the Executive Officer Participant under the MIP had the payout been made in cash, will be considered as earnings under any benefit plan or program sponsored by Delta only to the extent such payments are included as earnings under the terms of the specific plan or program; *provided, however*, that any MIP payment made to an Executive Officer Participant in MIP Restricted Stock will be considered as earnings only for purposes of the Company’s restoration payment program, as in effect from time to time. If such payments are included, unless otherwise provided in such plan or program, Participants will be eligible to contribute amounts paid under the MIP into such plans in the same manner and to the same extent as their ordinary compensation and any amounts so contributed will be subject to any applicable Company contributions and/or matches. Notwithstanding anything to the contrary in this Section 9 and except as otherwise provided under the terms of any defined contribution plan sponsored by the Company, any MIP payment received in connection with a Termination of Employment shall not be considered earnings under any benefit plan or program sponsored by Delta.

10. Effective Date. The MIP will become effective as of January 1, 2020; *provided however*, if on or before the date the Committee adopts the MIP any employee who would otherwise have participated in the MIP is informed that his or her employment will be terminated by the Company without Cause, any severance such employee is entitled to receive will be calculated based on the 2019 Management Incentive Plan as in effect as of December 31, 2019.

11. Amendment. Except as otherwise expressly set forth in this Section and Section 14, the terms of Section 14 of the Performance Compensation Plan shall apply to any amendment or termination of the MIP. In addition, the terms applicable to any Participant (other than an Executive Officer Participant) will be subject in their entirety to the terms of any offer letter or other document to which the Participant has agreed, including, without limitation, to provide alternative performance measures or performance measure weightings. The terms of such offer letter or other document, if contrary to the terms of the MIP, shall govern the rights of the corresponding Participant.

12. Fractions. Any calculation under the MIP that results in a fractional amount will be rounded up to two decimal points.

13. Section 409A of the Code. Notwithstanding anything in the MIP to the contrary, any payments or benefits under the MIP are intended to be exempt from the applicable requirements of Section 409A of the Code and the regulations promulgated thereunder (together, “**Section 409A**”) and shall be limited, construed and interpreted in accordance with such intent; *provided, however*, to the extent that any amount paid hereunder in connection with a Termination of Employment constitutes deferred compensation under Section 409A and is paid to a “specified employee” as defined in Section 409A, the payment of such amount will be delayed for six months.

14. Clawback. Notwithstanding anything to the contrary in the MIP and subject to further amendment of this Section 14 to the extent required to be in compliance with any applicable law or regulation or Delta’s internal clawback policy, as it may be amended from time to time, if the Committee determines that a vice president or more senior officer Participant has engaged in fraud or misconduct that caused, in whole or in part, the need for a required restatement of Delta’s financial statements filed with the U.S. Securities and Exchange Commission, the Committee will review all incentive compensation awarded to or earned by such Participant, including, without limitation, any MIP Award, with respect to fiscal periods materially affected by the restatement and may recover from the Participant all such incentive compensation to the extent that the Committee deems appropriate after taking into account the relevant facts and circumstances. Any recoupment hereunder may be in addition to any other remedies that may be available to Delta under applicable law, including, disciplinary action up to and including termination of employment.

EXHIBIT A—DELTA CONNECTION GOALS:

Delta Connection’s Operational Performance will be based on the number of times during 2020 that the group of Delta Connection carriers meets or exceeds its monthly operational goals for completion factor and on-time arrival performance (the “**Delta Connection Goals**”). The monthly Delta Connection Goals are included on the following table:

| | Completion Factor 2020 Goal | | On-Time Arrival Performance 2020 Goal | |
|----------------------|--|--------------------|--|--------------------|
| Month in 2020 | Relative CF | Absolute CF | Relative A0 | Absolute A0 |
| January | 1st | 97.2% | 1st | 65.8% |
| February | 1st | 96.9% | 1st | 70.3% |
| March | 1st | 97.9% | 1st | 65.5% |
| April | 1st | 98.5% | 1st | 72.9% |
| May | 1st | 99.0% | 1st | 69.2% |
| June | 1st | 98.2% | 1st | 68.0% |
| July | 1st | 98.4% | 1st | 67.6% |
| August | 1st | 99.7% | 1st | 70.1% |
| September | 1st | 99.7% | 1st | 75.6% |
| October | 1st | 99.7% | 1st | 76.1% |
| November | 1st | 99.7% | 1st | 73.1% |
| December | 1st | 98.7% | 1st | 66.5% |
| Overall | 1st | 98.7% | 1st | 70.0% |

The monthly goal in each performance category may be met by achieving either the specific numeric target or ranking (with a comparator group ranking of “1” being the best performance).

- A. The primary source of reported metrics used to calculate performance will be each Delta Connection carrier’s data which flows into Delta’s data warehouse.
- B. All domestic and international Delta Connection carrier system operations subject to capacity purchase agreements and/or revenue proration agreements will be included in the performance measures, including the operations of, Endeavor Air, Republic Airlines and SkyWest, but excluding any revenue proration operations with respect to which passenger reservations are not reflected on Delta’s reservations system (the “**Delta Connection Program**”). In the event that a carrier enters or leaves the Delta Connection Program, that carrier’s operations will be included or excluded from the performance measures as applicable.
- C. The monthly calculation for completion factor will be as follows:
 1. Add all Delta Connection scheduled system operations for the month.
 2. Add all Delta Connection system completed flights for the month (including flights canceled by one carrier and covered by another via an extra section, which also includes flights changed to Delta aircraft).
 3. Divide the result of C.2 by the result of C.1 for a combined Delta Connection system completion factor.
- D. The monthly calculation for on-time performance will be as follows:
 1. Add all Delta Connection completed system operations for the month.

2. Add all Delta Connection system on time operations for the month. On time operations are defined as the number of flights that arrive at the scheduled destination at the scheduled arrival time.
3. Divide the result of D.2 by the result of D.1 for a combined Delta Connection system on-time performance measure.

E. All calculations will be performed and validated by Delta Connection Operations.

F. The comparator group for the relative measure shall include the regional portfolios for Alaska Air Group, Inc., United Continental Holdings, Inc. and American Airlines Group, Inc. and the data is compiled by a third party selected by the Company.

SUBSIDIARIES OF DELTA AIR LINES, INC.
as of December 31, 2019

| NAME OF SUBSIDIARY | JURISDICTION OF INCORPORATION OR ORGANIZATION |
|----------------------------------|---|
| Aero Assurance Ltd. | Vermont |
| Delta Flight Products, LLC | Delaware |
| Delta Material Services, LLC | Delaware |
| Delta Private Jets, Inc. | Kentucky |
| Delta Professional Services, LLC | Delaware |
| Delta Vacations, LLC | Minnesota |
| Endeavor Air, Inc. | Georgia |
| Epsilon Trading, LLC | Delaware |
| MIPC, LLC | Delaware |
| Monroe Energy, LLC | Delaware |
| New Sky, Ltd. | Bermuda |

Certain subsidiaries were omitted pursuant to Item 601(21)(ii) of the SEC's Regulation S-K.

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement No. 333-142424 on Form S-8 pertaining to the Delta Air Lines, Inc. 2007 Performance Compensation Plan,
- (2) Registration Statement No. 333-149308 on Form S-8 pertaining to the Delta Air Lines, Inc. 2007 Performance Compensation Plan,
- (3) Registration Statement No. 333-154818 on Form S-8 pertaining to the Delta Air Lines, Inc. 2007 Performance Compensation Plan,
- (4) Registration Statement No. 333-151060 on Form S-8 pertaining to the Northwest Airlines Corporation 2007 Stock Incentive Plan,
- (5) Registration Statement No. 333-212525 on Form S-8 pertaining to the Delta Air Lines, Inc. Performance Compensation Plan,
- (6) Registration Statement No. 333-216463 on Form S-3 pertaining to debt securities,
- (7) Registration Statement No. 333-229720 on Form S-3 pertaining to Common Stock and
- (8) Registration Statement No. 333-230087 on Form S-3 pertaining to debt securities;

of our reports dated February 12, 2020, with respect to the consolidated financial statements of Delta Air Lines, Inc., and the effectiveness of internal control over financial reporting of Delta Air Lines, Inc. included in this Annual Report (Form 10-K) of Delta Air Lines, Inc. for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Atlanta, Georgia
February 12, 2020

I, Edward H. Bastian, certify that:

1. I have reviewed this annual report on Form 10-K of Delta Air Lines, Inc. ("Delta") for the annual period ended December 31, 2019;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of Delta as of, and for, the periods presented in this report;
4. Delta's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for Delta and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to Delta, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of Delta's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in Delta's internal control over financial reporting that occurred during Delta's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, Delta's internal control over financial reporting; and
5. Delta's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to Delta's auditors and the Audit Committee of Delta's Board of Directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect Delta's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in Delta's internal control over financial reporting.

February 12, 2020

/s/ Edward H. Bastian

Edward H. Bastian

Chief Executive Officer

I, Paul A. Jacobson, certify that:

1. I have reviewed this annual report on Form 10-K of Delta Air Lines, Inc. ("Delta") for the annual period ended December 31, 2019;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of Delta as of, and for, the periods presented in this report;
4. Delta's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for Delta and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to Delta, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of Delta's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in Delta's internal control over financial reporting that occurred during Delta's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, Delta's internal control over financial reporting; and
5. Delta's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to Delta's auditors and the Audit Committee of Delta's Board of Directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect Delta's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in Delta's internal control over financial reporting.

February 12, 2020

/s/ Paul A. Jacobson

Paul A. Jacobson

Executive Vice President and Chief Financial Officer

February 12, 2020
Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549

Ladies and Gentlemen:

The certifications set forth below are hereby submitted to the Securities and Exchange Commission pursuant to, and solely for the purpose of complying with, Section 1350 of Chapter 63 of Title 18 of the United States Code in connection with the filing on the date hereof with the Securities and Exchange Commission of the annual report on Form 10-K of Delta Air Lines, Inc. ("Delta") for the annual period ended December 31, 2019 (the "Report").

Each of the undersigned, the Chief Executive Officer and the Executive Vice President and Chief Financial Officer, respectively, of Delta, hereby certifies that, as of the end of the period covered by the Report:

1. such Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Delta.

/s/ Edward H. Bastian

Edward H. Bastian

Chief Executive Officer

/s/ Paul A. Jacobson

Paul A. Jacobson

Executive Vice President and Chief Financial Officer