American Airlines Group Inc.
Form 10-K
February 25, 2019

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, 2018
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Transition Period From to
Commission file number 1-8400

American Airlines Group Inc.
(Exact name of registrant as specified in its charter)

Delaware	75-1825172
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
4333 Amon Carter Blvd., Fort Worth, Texas 76155	(817) 963-1234
(Address of principal executive offices, including zip code)	Registrant’s telephone number, including area code

(Former name, former address and former fiscal year, if changed since last report)
Securities registered pursuant to Section 12(b) of the Act:

	Name of Exchange on Which Registered
Common Stock, $0.01 par value per share	NASDAQ

Securities registered pursuant to Section 12(g) of the Act: None
Commission file number 1-2691

American Airlines, Inc.
(Exact name of registrant as

specified
in its
charter)

Delaware	13-1502798
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
4333 Amon Carter Blvd., Fort Worth, Texas 76155	(817) 963-1234
(Address of principal executive offices, including zip code)	Registrant’s telephone number, including area code

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

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

American Airlines Group Inc.	Yes	No
American Airlines, Inc.	Yes	No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

American Airlines Group Inc. Yes No

American Airlines, Inc. 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.

American Airlines Group Inc. Yes No

American Airlines, Inc. 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).

American Airlines Group Inc. Yes No

American Airlines, Inc. Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

American Airlines Group Inc.

American Airlines, Inc.

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

American Airlines Group Inc.	Large Accelerated Filer	Accelerated Filer	Non-accelerated Filer	Smaller Reporting Company	Emerging Growth Company
American Airlines, Inc.	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.

American Airlines Group Inc.

American Airlines, Inc.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

American Airlines Group Inc. Yes No

American Airlines, Inc. Yes No

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 12, 13, or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

American Airlines Group Inc. Yes No

American Airlines, Inc. Yes No

As of February 20, 2019, there were 449,055,548 shares of American Airlines Group Inc. common stock outstanding. The aggregate market value of the voting stock held by non-affiliates of the registrant as of June 30, 2018, was approximately $17 billion.

As of February 20, 2019, there were 1,000 shares of American Airlines, Inc. common stock outstanding, all of which were held by American Airlines Group Inc.

OMISSION OF CERTAIN INFORMATION

American Airlines Group Inc. and American Airlines, Inc. meet the conditions set forth in General Instruction I(1)(a) and (b) of Form 10-K and have therefore omitted the information otherwise called for by Items 10-13 of Form 10-K as

allowed under General Instruction I(2)(c).

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the proxy statement related to American Airlines Group Inc.'s 2019 Annual Meeting of Stockholders, which proxy statement will be filed under the Securities Exchange Act of 1934 within 120 days of the end of American Airlines Group Inc.'s fiscal year ended December 31, 2018, are incorporated by reference into Part III of this Annual Report on Form 10-K.

American Airlines Group Inc.
American Airlines, Inc.
Form 10-K
Year Ended December 31, 2018
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General

This report is filed by American Airlines Group Inc. (AAG) and its wholly-owned subsidiary American Airlines, Inc. (American). References in this Annual Report on Form 10-K to "we," "us," "our," the "Company" and similar terms refer to AAG and its consolidated subsidiaries. "AMR" or "AMR Corporation" refers to the Company during the period of time prior to its emergence from Chapter 11 and its acquisition of US Airways Group, Inc. (US Airways Group) on December 9, 2013 (the Merger). References to US Airways Group and US Airways, Inc., a subsidiary of US Airways Group (US Airways), represent the entities during the period of time prior to the dissolution of those entities in connection with AAG's internal corporate restructuring on December 30, 2015. References in this report to "mainline" refer to the operations of American only and exclude regional operations.

Note Concerning Forward-Looking Statements

Certain of the statements contained in this report should be considered forward-looking statements within the meaning of the Securities Act of 1933, as amended (the Securities Act), the Securities Exchange Act of 1934, as amended (the Exchange Act), and the Private Securities Litigation Reform Act of 1995. These forward-looking statements may be identified by words such as "may," "will," "expect," "intend," "anticipate," "believe," "estimate," "plan," "project," "could," "s "continue," "seek," "target," "guidance," "outlook," "if current trends continue," "optimistic," "forecast" and other similar wor statements include, but are not limited to, statements about our plans, objectives, expectations, intentions, estimates and strategies for the future, and other statements that are not historical facts. These forward-looking statements are based on our current objectives, beliefs and expectations, and they are subject to significant risks and uncertainties that may cause actual results and financial position and timing of certain events to differ materially from the information in the forward-looking statements. These risks and uncertainties include, but are not limited to, those described below under Part I, Item 1A. Risk Factors, Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and other risks and uncertainties listed from time to time in our filings with the Securities and Exchange Commission (the SEC).

All of the forward-looking statements are qualified in their entirety by reference to the factors discussed in Part I, Item 1A. Risk Factors and elsewhere in this report. There may be other factors of which we are not currently aware that may affect matters discussed in the forward-looking statements and may also cause actual results to differ materially from those discussed. We do not assume any obligation to publicly update or supplement any forward-looking statement to reflect actual results, changes in assumptions or changes in other factors affecting such statements other than as required by law. Forward-looking statements speak only as of the date of this report or as of the dates indicated in the statements.

PART I

ITEM 1. BUSINESS

Overview

American Airlines Group Inc. (AAG), a Delaware corporation, is a holding company and its principal, wholly-owned subsidiaries are American Airlines, Inc. (American), Envoy Aviation Group Inc. (Envoy), PSA Airlines, Inc. (PSA) and Piedmont Airlines, Inc. (Piedmont). AAG was formed in 1982 under the name AMR Corporation (AMR) as the parent company of American, which was founded in 1934.

AAG's and American's principal executive offices are located at 4333 Amon Carter Boulevard, Fort Worth, Texas 76155 and their telephone number is 817-963-1234.

Airline Operations

Our primary business activity is the operation of a major network carrier, providing scheduled air transportation for passengers and cargo.

Together with our wholly-owned regional airline subsidiaries and third-party regional carriers operating as American Eagle, our airline operates an average of nearly 6,700 flights per day to nearly 350 destinations in more than 50 countries through hubs and gateways in Charlotte, Chicago, Dallas/Fort Worth, London Heathrow, Los Angeles, Miami, New York, Philadelphia, Phoenix and Washington, D.C. In 2018, approximately 204 million passengers boarded our flights. During 2018, we launched new seasonal nonstop service to Budapest, Hungary and Prague, Czech Republic from Philadelphia International Airport (PHL), to Venice, Italy from Chicago O'Hare International Airport (ORD) and to Reykjavik-Keflavik, Iceland from Dallas/Fort Worth International Airport (DFW), further expanding our global footprint. We also announced new seasonal nonstop service beginning in summer 2019 between PHL and Dubrovnik, Croatia, Berlin, Germany and Bologna, Italy.

As of December 31, 2018, we operated 956 mainline aircraft supported by our regional airline subsidiaries and third-party regional carriers, which operated an additional 595 regional aircraft. See Part I, Item 2. Properties for further discussion on our mainline and regional aircraft and "Regional" below for further discussion on our regional operations.

American is a founding member of the oneworld® alliance, whose members serve more than 1,000 destinations with approximately 14,250 daily flights to over 150 countries. See below for further discussion on the oneworld alliance and other agreements with domestic and international airlines.

See Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations –"2018 Financial Overview," "AAG's Results of Operations" and "American's Results of Operations" for further discussion of AAG's and American's operating results and operating performance. Also, see Note 14 to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 12 to American's Consolidated Financial Statements in Part II, Item 8B for information regarding operating segments and see Note 1(k) to AAG's and American's Consolidated Financial Statements in Part II, Items 8A and 8B, respectively, for passenger revenue by geographic region.

Regional

Our regional carriers provide scheduled air transportation under the brand name "American Eagle." The American Eagle carriers include our wholly-owned regional carriers Envoy, PSA and Piedmont, as well as third-party regional carriers including Republic Airline Inc. (Republic), Mesa Airlines, Inc. (Mesa), Compass Airlines, LLC (Compass) and SkyWest Airlines, Inc. (SkyWest). In addition, Air Wisconsin Corporation (Air Wisconsin), Trans States Airlines, Inc. (Trans States) and ExpressJet Airlines, Inc. (ExpressJet) operated regional jet aircraft for us during 2018; however these arrangements ended in February 2018, December 2018 and January 2019, respectively. Our regional carriers are an integral component of our operating network. We rely heavily on feeder traffic to our hubs from low-density markets that are not economical for us to serve with larger, mainline aircraft. In addition, regional carriers offer complementary service in our existing mainline markets. During 2018, approximately 56 million passengers boarded our regional carriers' planes, approximately 44% of whom connected to or from our mainline flights. Of these passengers, approximately 31 million were enplaned by our wholly-owned regional carriers and approximately 25 million were enplaned by third-party regional carriers. All American Eagle carriers use logos, service marks, aircraft paint schemes and uniforms similar to our mainline operations.

Substantially all of our regional carrier arrangements are in the form of capacity purchase agreements. The capacity purchase agreements provide that all revenues, including passenger, in-flight, ancillary, mail and freight revenues, go to us. We control marketing, scheduling, ticketing, pricing and seat inventories. In return, we agree to pay predetermined fees to

these airlines for operating an agreed-upon number of aircraft, without regard to the number of passengers on board. In addition, these agreements provide that we either reimburse or pay 100% of certain variable costs, such as airport landing fees, fuel and passenger liability insurance.

Cargo

Our cargo division provides a wide range of freight and mail services, with facilities and interline connections available across the globe.

Distribution and Marketing Agreements

Passengers can purchase tickets for travel on American through several distribution channels, including our website (www.aa.com), our reservations centers and third-party distribution channels, including those provided by or through global distribution systems (e.g., Amadeus, Sabre and Travelport), conventional travel agents, travel management companies and online travel agents (e.g., Expedia, including its booking sites Orbitz and Travelocity, and The Priceline Group). To remain competitive, we need to successfully manage our distribution costs and rights, increase our distribution flexibility and improve the functionality of third-party distribution channels, while maintaining an industry-competitive cost structure. For more discussion, see Part I, Item 1A. Risk Factors – "We rely on third-party distribution channels and must manage effectively the costs, rights and functionality of these channels."

In general, beyond nonstop city pairs, carriers that have the greatest ability to seamlessly connect passengers to and from markets have a competitive advantage. In some cases, however, foreign governments limit U.S. air carriers' rights to transport passengers beyond designated gateway cities in foreign countries. In order to improve access to domestic and foreign markets, we have arrangements with other airlines including through the oneworld alliance, other cooperation agreements, joint business agreements (JBAs), and marketing relationships, as further discussed below.

Member of oneworld Alliance

American is a founding member of the oneworld alliance, which includes British Airways, Cathay Pacific Airways, Finnair, Iberia, Japan Airlines, LATAM Airlines Group, Malaysia Airlines, Qantas Airways, Qatar Airways, Royal Jordanian, S7 Airlines and SriLankan Airlines. The oneworld alliance links the networks of the member carriers and their respective affiliates to enhance customer service and smooth connections to the destinations served by the alliance, including linking the carriers' loyalty programs and access to the carriers' airport lounge facilities.

Cooperation and Joint Business Agreements

American has established a transatlantic JBA with British Airways, Iberia and Finnair, and separately, a transpacific JBA with Japan Airlines, each of which has been granted antitrust immunity. Joint business agreements enable the carriers party to the relevant agreement to cooperate on flights between particular destinations and allow pooling and sharing of certain revenues and costs, enhanced loyalty program reciprocity and cooperation in other areas. Accordingly, American and its joint business partners received regulatory approval to enter into these JBAs and cooperation agreements. Joint business agreements have become common approaches to address key regulatory restrictions typically applicable to international airline service, including limitations on the foreign ownership of airlines and national laws prohibiting foreign airlines from carrying passengers beyond specific gateway cities. Our competitors, including Delta Air Lines and United Airlines, are party to similar arrangements.

In October 2017, American and its transatlantic partners executed an amended and restated JBA which, among other things, extends the term of the agreement. An application is pending with the U.S. Department of Transportation (DOT) to add Aer Lingus, which is now owned by the parent company of British Airways and Iberia, to the transatlantic JBA.

The transatlantic joint business relationship benefits from a grant of antitrust immunity from the DOT and was reviewed by the European Commission (EC) in July 2010. In connection with this review, we provided certain commitments to the EC regarding, among other things, the availability of take-off and landing slots at London Heathrow (LHR) or London Gatwick (LGW) airports. The commitments accepted by the EC are binding for 10 years with the possibility of renewal by the EC. However, in light of the impending exit of the United Kingdom from the European Union (EU) (Brexit) and the related possibility that the EC would no longer have regulatory responsibility for the United Kingdom when the commitments expire in July 2020, the United Kingdom Competition and Markets Authority (CMA) in October 2018 opened an investigation into the transatlantic JBA. We are cooperating fully with the CMA.

We have also signed a JBA with Qantas Airways and in 2015 applied for antitrust immunity with the DOT for the revised relationship, but we withdrew that application in November 2016 after it was tentatively denied by the DOT. In February 2018, we filed a new application for antitrust immunity with the DOT, which, if granted, would allow us to further expand our

relationship with Qantas Airways. This JBA has been approved by the competition law regulators in Australia and New Zealand.

In addition, we have signed JBAs with certain air carriers of the LATAM Airlines Group, which JBAs have been approved in all jurisdictions other than the United States, where approval is pending. Most recently, in November 2018, the Court of Free Competition in Chile approved the JBA between American and LATAM Airlines Group with respect to both our passenger and cargo businesses. That decision has been appealed to the Chilean Supreme Court.

In November 2018, we announced that we are taking steps to strengthen our partnership with China Southern Airlines Company Limited (China Southern Airlines), in which we presently hold a 2.2% equity interest, with a significant expansion of codeshare cooperation and the launch of reciprocal loyalty program benefits and lounge access.

Marketing Relationships

To improve access to each other's markets, various U.S. and foreign air carriers, including American, have established marketing agreements with other airlines. These marketing agreements generally provide enhanced customer choice by means of an expanded network with reciprocal loyalty program participation and joint sales cooperation. American currently has codeshare and/or loyalty program relationships with Air Tahiti Nui, Alaska Airlines, British Airways, Cape Air, Cathay Dragon, Cathay Pacific, China Southern Airlines, EL AL, Etihad Airways, Fiji Airways, Finnair, Gulf Air, Hawaiian Airlines, Iberia, Interjet, Japan Airlines, Jetstar Group (includes Jetstar Airways and Jetstar Japan), Korean Air, LATAM (includes LATAM Airlines, LATAM Argentina, LATAM Brasil, LATAM Peru, LATAM Colombia and LATAM Ecuador), Malaysia Airlines, Qantas Airways, Qatar Airways, Royal Jordanian, S7 Airlines, Seaborne Airlines and SriLankan Airlines.

Loyalty Program

Our loyalty program, AAdvantage®, was established to develop passenger loyalty by offering awards to travelers for their continued patronage. AAdvantage was named Best Elite Program in the Americas for the seventh consecutive year in that category at the 2018 Freddie Awards, which are annual awards that recognize the world's most outstanding frequent travel programs. AAdvantage members earn mileage credits by flying on American, any oneworld airline or other partner airlines, or by using the services of over 1,000 program participants, such as the Citi and Barclaycard US co-branded credit cards, hotels and car rental companies. For every dollar spent, non-status members earn five mileage credits, but Gold, Platinum, Platinum Pro and Executive Platinum status holders earn bonus mileage credits of seven, eight, nine and eleven mileage credits, respectively.

All travel on eligible tickets counts toward qualification for elite status in the AAdvantage program. Mileage credits can be redeemed for free or upgraded travel on American and participating airlines, membership to our Admirals Club® or for other non-travel awards from our program participants. Most travel awards are subject to capacity-controlled seating. A member's mileage credit does not expire as long as that member has any type of qualifying activity at least once every 18 months. Elite members can enjoy additional benefits of the AAdvantage program, including complimentary upgrades, checked bags, and Preferred and Main Cabin Extra seats, as well as priority check-in, security, boarding and baggage delivery. Additionally, our members earn bonus mileage credits when elite status is obtained.

Under our agreements with AAdvantage members and program partners, we reserve the right to change the AAdvantage program at any time without notice, and may end the program with six months' notice. Program rules, partners, special offers, awards and requisite mileage levels for awards are subject to change.

During 2018, our members redeemed approximately 13 million awards including travel redemptions for flights and upgrades on American and other air carriers, as well as redemption of car and hotel awards, club memberships and merchandise. Approximately 7.6% of our 2018 total revenue passenger miles flown were from award travel.

See Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – "Critical Accounting Policies and Estimates" for more information on our loyalty program.

Industry Competition

Domestic

The markets in which we operate are highly competitive. On most of our domestic nonstop routes, we currently face competing service from other domestic airlines, including major network airlines, low-cost carriers and ultra-low-cost carriers such as Alaska Airlines, Allegiant Air, Delta Air Lines, Frontier Airlines, Hawaiian Airlines, JetBlue

Airways, Southwest Airlines, Spirit Airlines and United Airlines. Competition is even greater between cities that require a connection, where the major airlines compete via their respective hubs. In addition, we face competition on some of our connecting routes from airlines

operating point-to-point service on such routes. We also compete with all-cargo and charter airlines and, particularly on shorter segments, ground and rail transportation.

On all of our routes, pricing decisions are affected, in large part, by the need to meet competition from other airlines. Price competition occurs on a market-by-market basis through price discounts, changes in pricing structures, fare matching, targeted promotions and loyalty program initiatives. Airlines typically use discount fares and other promotions to stimulate traffic during normally slack travel periods, when they begin service to new cities or when they have excess capacity, to generate cash flow, to maximize revenue per available seat mile and to establish, increase or preserve market share. We have often elected to match discount or promotional fares initiated by other air carriers in certain markets in order to compete in those markets. Most airlines will quickly match price reductions in a particular market. In addition, low-fare, low-cost carriers, such as Southwest Airlines and JetBlue Airways, and so-called ultra-low-cost carriers, such as Allegiant Air, Frontier Airlines and Spirit Airlines, compete in many of the markets in which we operate and competition from these carriers is increasing.

In addition to price competition, airlines compete for market share by increasing the size of their route system and the number of markets they serve. The American Eagle regional carriers increase the number of markets we serve by flying to lower demand markets and providing connections at our hubs. Many of our competitors also own or have agreements with regional airlines that provide similar services at their hubs and other locations. We also compete on the basis of scheduling (frequency and flight times), availability of nonstop flights, on-time performance, type of equipment, cabin configuration, amenities provided to passengers, loyalty programs, the automation of travel agent reservation systems, onboard products, markets served and other services.

International

In addition to our extensive domestic service, we provide international service to Canada, Central and South America, Asia, Europe, Australia and New Zealand. In providing international air transportation, we compete with U.S. airlines, foreign investor-owned airlines and foreign state-owned or state-affiliated airlines. Competition is increasing from foreign state-owned and state-affiliated airlines in the Gulf region, including Emirates, Etihad Airways and Qatar Airways. These carriers have large numbers of international widebody aircraft in service and on order and are increasing service to the U.S. from locations both in and outside the Middle East. Service to and from locations outside of the Middle East is provided by some of these carriers under so-called “fifth freedom” rights permitted under international treaties which allow service to and from stopover points between an airline’s home country and the ultimate destination. Such flights, such as a stopover in Europe on flights to the United States, allow the carrier to sell tickets for travel between the stopover point and the United States in competition with service provided by us. Additionally, these carriers have made significant investments in a number of airlines located outside of the Middle East, such as Air Italy, providing these affiliated airlines with capital and aircraft to permit increases in service that compete with us. We believe these state-owned and state-affiliated carriers in the Gulf region, including their affiliated carriers, benefit from significant government subsidies, which have allowed them to grow quickly, reinvest in their product and expand their global presence. Competition is also increasing from low-cost airlines executing international long-haul expansion strategies, including, for example, Icelandair, Norwegian Air Shuttle and Wow Air.

In order to increase our ability to compete for international air transportation service, which is subject to extensive government regulation, U.S. and foreign carriers have entered into bilateral and multilateral marketing relationships, alliances, cooperation agreements and JBAs to exchange traffic among each other’s flights and route networks. See “Distribution and Marketing Agreements” above for further discussion.

Employees and Labor Relations

The airline business is labor intensive. In 2018, salaries, wages and benefits were our largest expense and represented approximately 33% of our total operating expenses. As of December 31, 2018, we had approximately 128,900 active full-time equivalent employees, approximately 84% of whom were represented by various labor unions responsible for negotiating the collective bargaining agreements (CBAs) covering them.

Labor relations in the air transportation industry are regulated under the Railway Labor Act (RLA), which vests in the National Mediation Board (NMB) certain functions with respect to disputes between airlines and labor unions relating to union representation and CBAs. When an RLA CBA becomes amendable, if either party to the agreement wishes to modify its terms, it must notify the other party in the manner prescribed under the RLA and as agreed by the parties.

Under the RLA, the parties must meet for direct negotiations, and, if no agreement is reached during direct negotiations between the parties, either party may request that the NMB appoint a federal mediator. The RLA prescribes no timetable for the direct negotiation and mediation processes, and it is not unusual for those processes to last for many months or even several years. If no agreement is reached in mediation, the NMB in its discretion may declare that an impasse exists and proffer binding arbitration to the parties. Either party may decline to submit to arbitration, and if arbitration is rejected by either party, a 30-day “cooling

off" period commences. During or after that period, a Presidential Emergency Board (PEB) may be established, which examines the parties' positions and recommends a solution. The PEB process lasts for 30 days and is followed by another 30-day "cooling off" period. At the end of this "cooling off" period, unless an agreement is reached or action is taken by Congress, the labor organization may exercise "self-help," such as a strike, and the airline may resort to its own "self-help," including the imposition of any or all of its proposed amendments to the CBA and the hiring of new employees to replace any striking workers.

None of the unions representing our employees presently may lawfully engage in concerted slowdowns or refusals to work, such as strikes, sick-outs or other similar activity, against us. Nonetheless, there is a risk that disgruntled employees, either with or without union involvement, could engage in one or more concerted refusals to work that could individually or collectively harm the operation of our airline and impair our financial performance.

The following table shows our domestic airline employee groups that are represented by unions:

Union	Class or Craft	Employees [(1)]	Contract Amendable Date
Mainline:			
Allied Pilots Association (APA)	Pilots	13,600	2020
Association of Professional Flight Attendants (APFA)	Flight Attendants	24,800	2019
Airline Customer Service Employee Association – Communications Workers of America and International Brotherhood of Teamsters (CWA-IBT)	Passenger Service	15,050	2020
Transport Workers Union and International Association of Machinists & Aerospace Workers (TWU-IAM Association)	Mechanics and Related	12,450	2018
TWU-IAM Association	Fleet Service	16,800	2018
TWU-IAM Association	Stock Clerks	1,900	2018
TWU-IAM Association	Flight Simulator Engineers	150	2021
TWU-IAM Association	Maintenance Control Technicians	200	2018
TWU-IAM Association	Maintenance Training Instructors	50	2018
Professional Airline Flight Control Association (PAFCA)	Dispatchers	400	2021
Transport Workers Union (TWU)	Flight Crew Training Instructors	300	2021
Envoy:			
Air Line Pilots Associations (ALPA)	Pilots	2,300	2024
Association of Flight Attendants-CWA (AFA)	Flight Attendants	1,400	2020
TWU	Ground School Instructors	10	2019
TWU	Mechanics and Related	1,350	2020
TWU	Stock Clerks	150	2020
TWU	Fleet Service Clerks	3,700	2019
TWU	Dispatchers	70	2019
Communications Workers of America (CWA)	Passenger Service	4,800	Tentative Initial Agreement Reached

Union	Class or Craft	Employees [1]	Contract Amendable Date
Piedmont:			
ALPA	Pilots	630	2024
AFA	Flight Attendants	300	2019
International Brotherhood of Teamsters (IBT)	Mechanics	375	2021
IBT	Stock Clerks	60	2021
CWA	Fleet and Passenger Service	3,650	2023
IBT	Dispatchers	30	2019
ALPA	Flight Crew Training Instructors	40	2024
PSA:			
ALPA	Pilots	1,650	2023
AFA	Flight Attendants	1,250	2017
International Association of Machinists & Aerospace Workers (IAM)	Mechanics	470	2022
TWU	Dispatchers	60	2022

[1] Approximate number of active full-time equivalent employees as of December 31, 2018.

Joint collective bargaining agreements (JCBAs) have been reached with post-Merger employee groups, except for contracts with the TWU-IAM Association which represents the maintenance, fleet service, stock clerks, maintenance control technicians and maintenance training instructors whose contracts became amendable in the third quarter of 2018. Negotiations designed to reach JCBAs involving all of these workgroups continue. Additionally, the post-Merger JCBAs covering our pilots and flight attendants, while not yet amendable, provide the unions with the right to elect to commence negotiations for new collective bargaining agreements in advance of each JCBA's amendable date. Both of the unions have exercised these rights and negotiations are underway for new agreements. Among our wholly-owned regional subsidiaries, the PSA flight attendants have an agreement that is now amendable and are engaged in traditional RLA negotiations. In January 2019, the Envoy passenger service employees reached a tentative seven-year labor agreement subject to membership ratification.

For more discussion, see Part I, Item 1A. Risk Factors – "Union disputes, employee strikes and other labor-related disruptions, or our inability to otherwise maintain labor costs at competitive levels may adversely affect our operations and financial performance."

Aircraft Fuel

Our operations and financial results are significantly affected by the availability and price of jet fuel, which is our second largest expense. Based on our 2019 forecasted mainline and regional fuel consumption, we estimate that a one cent per gallon increase in aviation fuel price would increase our 2019 annual fuel expense by $45 million.

The following table shows annual aircraft fuel consumption and costs, including taxes, for our mainline and regional operations for 2018, 2017 and 2016 (gallons and aircraft fuel expense in millions).

Year	Gallons	Average Price per Gallon	Aircraft Fuel Expense	Percent of Total Operating Expenses
2018	4,447	$2.23	$9,896	23.6%
2017	4,352	1.73	7,510	19.6%
2016	4,347	1.42	6,180	17.6%

As of December 31, 2018, we did not have any fuel hedging contracts outstanding to hedge our fuel consumption. As such, and assuming we do not enter into any future transactions to hedge our fuel consumption, we will continue to be fully

exposed to fluctuations in fuel prices. Our current policy is not to enter into transactions to hedge our fuel consumption, although we review that policy from time to time based on market conditions and other factors.
Fuel prices have fluctuated substantially over the past several years. We cannot predict the future availability, price volatility or cost of aircraft fuel. Natural disasters (including hurricanes or similar events in the U.S. Southeast and on the Gulf Coast where a significant portion of domestic refining capacity is located), political disruptions or wars involving oil-producing countries, economic sanctions imposed against oil-producing countries or specific industry participants, changes in fuel-related governmental policy, the strength of the U.S. dollar against foreign currencies, changes in the cost to transport or store petroleum products, changes in access to petroleum product pipelines and terminals, speculation in the energy futures markets, changes in aircraft fuel production capacity, environmental concerns and other unpredictable events may result in fuel supply shortages, distribution challenges, additional fuel price volatility and cost increases in the future. See Part I, Item 1A. Risk Factors – "Our business is very dependent on the price and availability of aircraft fuel. Continued periods of high volatility in fuel costs, increased fuel prices or significant disruptions in the supply of aircraft fuel could have a significant negative impact on our operating results and liquidity."

Seasonality and Other Factors

Due to the greater demand for air travel during the summer months, revenues in the airline industry in the second and third quarters of the year tend to be greater than revenues in the first and fourth quarters of the year. General economic conditions, fears of terrorism or war, fare initiatives, fluctuations in fuel prices, labor actions, weather, natural disasters, outbreaks of disease and other factors could impact this seasonal pattern. Therefore, our quarterly results of operations are not necessarily indicative of operating results for the entire year, and historical operating results in a quarterly or annual period are not necessarily indicative of future operating results.

Domestic and Global Regulatory Landscape

General

Airlines are subject to extensive domestic and international regulatory requirements. Domestically, the DOT and the Federal Aviation Administration (FAA) exercise significant regulatory authority over air carriers.
The DOT, among other things, oversees domestic and international codeshare agreements, international route authorities, competition and consumer protection matters such as advertising, denied boarding compensation and baggage liability. The Antitrust Division of the Department of Justice (DOJ), along with the DOT in certain instances, have jurisdiction over airline antitrust matters.
The FAA similarly exercises safety oversight and regulates most operational matters of our business, including how we operate and maintain our aircraft. FAA requirements cover, among other things, required technology and necessary onboard equipment; systems, procedures and training necessary to ensure the continuous airworthiness of our fleet of aircraft; safety measures and equipment; crew scheduling limitations and experience requirements; and many other technical aspects of airline operations. Additionally, our pilots and other employees are subject to rigorous certification standards, and our pilots and other crew members must adhere to flight time and rest requirements.
The FAA also controls the national airspace system, including operational rules and fees for air traffic control (ATC) services. The efficiency, reliability and capacity of the ATC network has a significant impact on our costs and on the timeliness of our operations.
The U.S. Postal Service has jurisdiction over certain aspects of the transportation of mail and related services.

Airport Access and Operations

Domestically, any U.S. airline authorized by the DOT is generally free to operate scheduled passenger service between any two points within the U.S. and its territories, with the exception of certain airports that require landing and take-off rights and authorizations (slots) and other facilities, and certain airports that impose geographic limitations on operations or curtail operations based on the time of day. Operations at three major domestic airports we serve (John F. Kennedy International Airport (JFK) and La Guardia Airport (LGA) in New York City, and Ronald Reagan Washington National Airport (DCA) in Washington, D.C.) and many foreign airports we serve (including LHR) are regulated by governmental entities through allocations of slots or similar regulatory mechanisms that limit the rights of carriers to conduct operations at those airports. Each slot represents the authorization to land at or take off from the particular airport during a specified time period. In addition to slot restrictions, operations at LGA and DCA

are also limited based on a so-called “perimeter rule” which generally limits the stage length of the flights that can be operated from those airports to 1,500 and 1,250 miles, respectively.

Our ability to provide service can also be impaired at airports, such as ORD in Chicago and Los Angeles International Airport (LAX), where the airport gate and other facilities are currently inadequate to accommodate all of the service that we would like to provide.

Existing law also permits domestic local airport authorities to implement procedures and impose restrictions designed to abate noise, provided such procedures and restrictions do not unreasonably interfere with interstate or foreign commerce or the national transportation system. In some instances, these restrictions have caused curtailments in service or increases in operating costs.

Airline Fares, Taxes and User Fees

Airlines are permitted to establish their own domestic fares without governmental regulation. The DOT maintains authority over certain international fares, rates and charges, but applies this authority on a limited basis. In addition, international fares and rates are sometimes subject to the jurisdiction of the governments of the foreign countries which we serve.

Airlines are obligated to collect a federal excise tax, commonly referred to as the “ticket tax,” on domestic and international air transportation, and to collect other taxes and charge other fees, such as foreign taxes, security fees and passenger facility charges. Although these taxes and fees are not our operating expenses, they represent an additional cost to our customers. These taxes and fees are subject to increase from time to time.

DOT Passenger Protection Rules

The DOT regulates airline interactions with passengers through the ticketing process, at the airport and on board the aircraft. Among other things, these regulations govern how our fares are displayed online, required customer disclosures, access by disabled passengers, handling of long onboard flight delays and reporting of mishandled bags. In addition, the DOT is likely to issue a regulation in 2019 that would require air carriers to refund checked bag fees in the event of certain delays in delivery.

International

International air transportation is subject to extensive government regulation, including aviation agreements between the U.S. and other countries or governmental authorities, such as the EU. Moreover, alliances with international carriers may be subject to the jurisdiction and regulations of various foreign agencies. The U.S. government has negotiated “open skies” agreements with over 120 countries, which allow unrestricted route authority access between the U.S. and the foreign markets. While the U.S. has worked to increase the number of countries with which open skies agreements are in effect, a number of markets important to us, including China, do not have open skies agreements.

In addition, foreign countries impose passenger protection rules, which are analogous to, and often meet or exceed the requirements of, the DOT passenger protection rules discussed above. In cases where these foreign requirements exceed the DOT rules, we may bear additional burdens and liabilities. Further, various foreign airport authorities impose noise restrictions at their local airports.

Security

Since shortly after the events of September 11, 2001, substantially all aspects of civil aviation security in the U.S. or affecting U.S. carriers have been controlled or regulated by the federal government through the Transportation Security Administration (TSA). Requirements include flight deck security; carriage of federal air marshals at no charge; enhanced security screening of passengers, baggage, cargo, mail, employees and vendors; fingerprint-based background checks of all employees and vendor employees with access to secure areas of airports; and the provision of certain passenger data to the federal government and other international border security authorities, for security and immigration controls. Funding for the TSA is provided by a combination of air carrier fees, passenger fees and taxpayer funds. Customs and Border Protection, which, like the TSA, is part of the Department of Homeland Security (DHS), also promulgates requirements, performs services and collects fees that impact our provision of services. Additionally, we have at times found it necessary or desirable to make significant expenditures to comply with security-related requirements while seeking to reduce their impact on our customers, such as expenditures for automated security screening lines at airports. Our international service further requires us to comply with the civil aviation security regimes imposed at the foreign airports we serve.

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Environmental Matters

Environmental Regulation

The airline industry is subject to various laws and government regulations concerning environmental matters in the U.S. and other countries. U.S. federal laws that have a particular impact on our operations include the Airport Noise and Capacity Act of 1990, the Clean Air Act, the Resource Conservation and Recovery Act, the Clean Water Act, the Safe Drinking Water Act and the Comprehensive Environmental Response, Compensation and Liability Act (Superfund Act). The U.S. Environmental Protection Agency (EPA) and other federal agencies have been authorized to promulgate regulations that have an impact on our operations. In addition to these federal activities, various states have been delegated certain authorities under the aforementioned federal statutes. Many state and local governments have adopted environmental laws and regulations which are similar to or stricter than federal requirements.

Revised underground storage tank regulations issued by the EPA in 2015 have affected certain airport fuel hydrant systems, with modifications of such systems needed in order to comply with applicable portions of the revised regulations. In addition, related to the EPA and state regulations pertaining to stormwater management, several U.S. airport authorities are actively engaged in efforts to limit discharges of deicing fluid into the environment, often by requiring airlines to participate in the building or reconfiguring of airport deicing facilities.

The environmental laws to which we are subject include those related to responsibility for potential soil and groundwater contamination. We are conducting investigation and remediation activities to address soil and groundwater conditions at several sites, including airports and maintenance bases. We presently anticipate that the ongoing costs of such activities will not have a material impact on our operations. In addition, we have been named as a potentially responsible party (PRP) at certain Superfund sites. Our alleged volumetric contributions at such sites are relatively small in comparison to total contributions of all PRPs. Accordingly, we presently anticipate that any future payments of costs at such sites will not have a material impact on our operations.

Aircraft Emissions and Climate Change Requirements

Many aspects of our operations are subject to increasingly stringent environmental regulations and concerns about climate change and greenhouse gas (GHG) emissions. For example, the EU has established the Emissions Trading System (ETS) to regulate GHG emissions in the EU. The EU adopted a directive in 2008 under which each EU member state is required to extend the ETS to aviation operations. However, the EU ETS has never fully been imposed, in large part due to the global effort to moderate international aviation emissions solely through the International Civil Aviation Organization (ICAO). The EU has extended its stay on the extra-territorial application of the EU ETS as applied to international flights to/from the European Economic Area (EEA) through year-end 2023, contingent on successful implementation of CORSIA. Thereafter, the EU will assess CORSIA implementation and decide the future status of the EU ETS as applied to international aviation to/from the EEA. The U.S. enacted legislation in November 2012 intended to encourage an international solution through ICAO, but which also authorizes the U.S. Secretary of Transportation to prohibit U.S. airlines from participating in the ETS.

In 2016, ICAO passed a resolution adopting the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which is a global, market-based emissions offset program intended to encourage carbon-neutral growth beyond 2020. CORSIA applies to international aviation, and does not directly impact domestic U.S. flights. CORSIA was supported by the board of Airlines for America (the principal U.S. airline trade association, of which we are a member), the International Air Transport Association (IATA) (the principal international airline trade association), and by American and many other U.S. and foreign airlines. In March 2017, ICAO also adopted new aircraft certification standards to reduce carbon dioxide emissions from aircraft, which will apply to new aircraft type designs commencing in 2020, and to aircraft type designs already in production as of 2023. On June 27, 2018, ICAO adopted standards pertaining to the collection and sharing of information on international aviation emissions beginning in 2019. Airline operators must prepare GHG monitoring plans by February 2019. CORSIA will increase operating costs for American and most other airlines, including other U.S. airlines that operate internationally, but the implementation of a global program, as compared to regional emission reduction schemes, should ensure that resulting increases in operating costs will be more evenly applied to American and its competitors since there will be a common global regulatory regime. CORSIA is expected to be implemented in phases, with information collection and sharing beginning in 2019, a pilot phase beginning in 2021, and the first phase beginning in 2024. Certain details still need to

be developed and the impact of CORSIA cannot be fully predicted.

In 2019, the EPA could finalize a rule implementing aircraft engine GHG emission standards developed initially through ICAO. It is anticipated that the EPA rule will closely align with recent ICAO carbon dioxide emission standards. The new standards, which were supported by the airline industry and manufacturers, would apply to new type aircraft certified beginning in 2020, and would be phased in for newly manufactured existing aircraft type designs starting in 2023.

In addition, several states have adopted or are considering initiatives to regulate GHG emissions, primarily through the planned development of GHG emissions inventories, regional GHG cap and trade programs or low carbon fuel programs.

We have taken a number of actions that mitigate our GHG emissions and conserve fuel such as:

- Retiring older aircraft and replacing them with new, more fuel-efficient aircraft;
- Reducing fuel consumption through our Fuel Smart Program, which is an employee-led effort to safely reduce fuel consumption at American; a similar program is underway to reduce fuel consumption at our regional carriers;
- Working with the FAA and vendors to facilitate efficient airspace procedures, which also reduces aircraft emissions;
- Replacing existing cargo containers with lightweight versions;
- Replacing older, inefficient ground support equipment with new, more fuel-efficient ground support equipment, including alternative-fuel and electric powered equipment;
- Purchasing renewable energy to reduce indirect emissions;
- Seeking certification of certain of our buildings to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) standard;
- Entering into discussions with potential vendors to further explore potential production pathways for sustainable alternative jet fuel; and
- Cooperating with airports and other stakeholders to accelerate the introduction of sustainable alternative fuels

For further information, see our annual Corporate Responsibility Report, available on our website at www.aa.com. None of the information or contents of our website is incorporated into this Annual Report on Form 10-K.

Impact of Regulatory Requirements on Our Business

Regulatory requirements, including but not limited to those discussed above, affect operations and increase operating costs for the airline industry, including our airline subsidiaries, and future regulatory developments may continue to do the same in the future. See Part I, Item 1A. Risk Factors – "Evolving data security and privacy requirements could increase our costs, and any significant data security incident could disrupt our operations, harm our reputation, expose us to legal risks and otherwise materially adversely affect our business, results of operations and financial condition," "If we are unable to obtain and maintain adequate facilities and infrastructure throughout our system and, at some airports, adequate slots, we may be unable to operate our existing flight schedule and to expand or change our route network in the future, which may have a material adverse impact on our operations," "Our business is subject to extensive government regulation, which may result in increases in our costs, disruptions to our operations, limits on our operating flexibility, reductions in the demand for air travel, and competitive disadvantages," "The airline industry is heavily taxed," "We are subject to many forms of environmental and noise regulation and may incur substantial costs as a result" and "We are subject to risks associated with climate change, including increased regulation to reduce emissions of greenhouse gases" for additional information.

Available Information

Use of Websites to Disclose Information

Our website is located at www.aa.com. We have made and expect in the future to make public disclosures to investors and the general public of information regarding AAG and its subsidiaries by means of the investor relations section of our website as well as through the use of our social media sites, including Facebook and Twitter. In order to receive notifications regarding new postings to our website, investors are encouraged to enroll on our website to receive automatic email alerts (see https://americanairlines.gcs-web.com/email-alerts), "follow" American (@AmericanAir) on Twitter and "like" American on our Facebook page (www.facebook.com/AmericanAirlines). None of the information or contents of our website or social media postings is incorporated into this Annual Report on Form 10-K.

Availability of SEC Reports

A copy of this Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports are available free of charge on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The SEC also maintains a website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at www.sec.gov.

ITEM 1A. RISK FACTORS

Below are certain risk factors that may affect our business, results of operations and financial condition, or the trading price of our common stock or other securities. We caution the reader that these risk factors may not be exhaustive. We operate in a continually changing business environment, and new risks and uncertainties emerge from time to time. Management cannot predict such new risks and uncertainties, nor can it assess the extent to which any of the risk factors below or any such new risks and uncertainties, or any combination thereof, may impact our business.

Downturns in economic conditions could adversely affect our business.

Due to the discretionary nature of business and leisure travel spending and the highly competitive nature of the airline industry, our revenues are heavily influenced by the condition of the U.S. economy and economies in other regions of the world. Unfavorable conditions in these broader economies have resulted, and may result in the future, in decreased passenger demand for air travel, changes in booking practices and related reactions by our competitors, all of which in turn have had, and may have in the future, a strong negative effect on our business. See also "The airline industry is intensely competitive and dynamic" below.

Our business is very dependent on the price and availability of aircraft fuel. Continued periods of high volatility in fuel costs, increased fuel prices or significant disruptions in the supply of aircraft fuel could have a significant negative impact on our operating results and liquidity.

Our operating results are materially impacted by changes in the availability, price volatility and cost of aircraft fuel, which represents one of the largest single cost items in our business. Market prices for jet fuel have fluctuated substantially over the past several years and prices continue to be highly volatile.

Because of the amount of fuel needed to operate our business, even a relatively small increase or decrease in the price of fuel can have a material effect on our operating results and liquidity. Due to the competitive nature of the airline industry and unpredictability of the market for air travel, we can offer no assurance that we may be able to increase our fares, impose fuel surcharges or otherwise increase revenues or decrease other operating costs sufficiently to offset fuel price increases. Similarly, we cannot predict actions that may be taken by our competitors in response to changes in fuel prices.

Although we are currently able to obtain adequate supplies of aircraft fuel, we cannot predict the future availability, price volatility or cost of aircraft fuel. Natural disasters (including hurricanes or similar events in the U.S. Southeast and on the Gulf Coast where a significant portion of domestic refining capacity is located), political disruptions or wars involving oil-producing countries, economic sanctions imposed against oil-producing countries or specific industry participants, changes in fuel-related governmental policy, the strength of the U.S. dollar against foreign currencies, changes in the cost to transport or store petroleum products, changes in access to petroleum product pipelines and terminals, speculation in the energy futures markets, changes in aircraft fuel production capacity, environmental concerns and other unpredictable events may result in fuel supply shortages, distribution challenges, additional fuel price volatility and cost increases in the future. Any of these factors or events could cause a disruption in oil production, refinery operations, pipeline capacity or terminal access and possibly result in significant increases in the price of aircraft fuel and diminished availability of aircraft fuel supply.

Our aviation fuel purchase contracts generally do not provide meaningful price protection against increases in fuel costs. Our current policy is not to enter into transactions to hedge our fuel consumption, although we review this policy from time to time based on market conditions and other factors. Accordingly, as of December 31, 2018, we did not have any fuel hedging contracts outstanding. As such, and assuming we do not enter into any future transactions to hedge our fuel consumption, we will continue to be fully exposed to fluctuations in fuel prices. See also the discussion in Part II, Item 7A. Quantitative and Qualitative Disclosures About Market Risk – "Aircraft Fuel."

The airline industry is intensely competitive and dynamic.

Our competitors include other major domestic airlines and foreign, regional and new entrant airlines, as well as joint ventures formed by some of these airlines, many of which have more financial or other resources and/or lower cost structures than ours, as well as other forms of transportation, including rail and private automobiles. In many of our markets we compete with at least one low-cost carrier (including so-called ultra-low cost carriers). Our revenues are sensitive to the actions of other carriers in many areas including pricing, scheduling, capacity, amenities, loyalty benefits and promotions, which can have a substantial adverse impact not only on our revenues, but on overall

industry revenues. These factors may become even more significant in periods when the industry experiences large losses, as airlines under financial stress, or in bankruptcy, may institute pricing structures intended to achieve near-term survival rather than long-term viability.

Low-cost carriers (including so-called ultra-low-cost carriers) have a profound impact on industry revenues. Using the advantage of low unit costs, these carriers offer lower fares in order to shift demand from larger, more established airlines, and represent significant competitors, particularly for customers who fly infrequently and are price sensitive and tend not to be loyal to any one particular carrier. While historically these carriers have provided competition in domestic markets, we have recently experienced new competition from low-cost carriers on international routes. A number of these low-cost carriers have announced growth strategies including commitments to acquire significant numbers of new aircraft for delivery in the next few years. These low-cost carriers are attempting to continue to increase their market share through growth and, potentially, consolidation, and are expected to continue to have an impact on our revenues and overall performance. We and several other large network carriers have implemented "Basic Economy" fares designed to more effectively compete against low-cost carriers, but we cannot predict whether these initiatives will be successful or the competitive reaction of the low-cost carriers. Competition is also increasing from low-cost airlines executing international long-haul expansion strategies, including, for example, Icelandair, Norwegian Air Shuttle and Wow Air. The actions of existing or future low-cost carriers, including those described above, could have a material adverse effect on our operations and financial performance.

We provide air travel internationally, directly as well as through joint business, alliance, codeshare and similar arrangements to which we are a party. While our network is comprehensive, compared to some of our key global competitors, we generally have somewhat greater relative exposure to certain regions (for example, Latin America) and somewhat lower relative exposures to others (for example, China and parts of Asia). Our financial performance relative to our key competitors will therefore be influenced significantly by macro-economic conditions in particular regions around the world and the relative exposure of our network to the markets in those regions.

In providing international air transportation, we compete to provide scheduled passenger and cargo service between the U.S. and various overseas locations with U.S. airlines, foreign investor-owned airlines and foreign state-owned or state-affiliated airlines. Competition is increasing from foreign state-owned and state-affiliated airlines in the Gulf region, including Emirates, Etihad Airways and Qatar Airways. These carriers have large numbers of international widebody aircraft in service and on order and are increasing service to the U.S. from locations both in and outside the Middle East. Service to and from locations outside of the Middle East is provided by some of these carriers under so-called "fifth freedom" rights permitted under international treaties which allow service to and from stopover points between an airline's home country and the ultimate destination. Such flights, such as a stopover in Europe on flights to the United States, allow the carrier to sell tickets for travel between the stopover point and the United States in competition with service provided by us. Additionally, these carriers have made significant investments in a number of airlines located outside of the Middle East, such as Air Italy, providing these affiliated airlines with capital and aircraft to permit increases in service that compete with us. We believe these state-owned and state-affiliated carriers in the Gulf region, including their affiliated carriers, benefit from significant government subsidies, which have allowed them to grow quickly, reinvest in their product and expand their global presence. Competition is also increasing from low-cost airlines executing international long-haul expansion strategies, including, for example, Icelandair, Norwegian Air Shuttle and Wow Air.

Our international service exposes us to foreign economies and the potential for reduced demand, such as we have recently experienced in Venezuela, when any foreign country we serve suffers adverse local economic conditions. In addition, open skies agreements with an increasing number of countries around the world provide international airlines with open access to U.S. markets, potentially subjecting us to increased competition on our international routes. See also "Our business is subject to extensive government regulation, which may result in increases in our costs, disruptions to our operations, limits on our operating flexibility, reductions in the demand for air travel, and competitive disadvantages."

Certain airline alliances, joint ventures and joint businesses have been, or may in the future be, granted immunity from antitrust regulations by governmental authorities for specific areas of cooperation, such as joint pricing decisions. To the extent alliances formed by our competitors can undertake activities that are not available to us, our ability to effectively compete may be hindered. Our ability to attract and retain customers is dependent upon, among other things, our ability to offer our customers convenient access to desired markets. Our business could be adversely affected if we are unable to maintain or obtain alliance and marketing relationships with other air carriers in desired

markets.

American has established a transatlantic JBA with British Airways, Iberia and Finnair, and separately, a transpacific JBA with Japan Airlines, each of which has been granted antitrust immunity. In October 2017, American and its transatlantic partners executed an amended and restated JBA which, among other things, extends the term of the agreement. An application is pending with the DOT to add Aer Lingus, which is now owned by the parent company of British Airways and Iberia, to the transatlantic JBA. This relationship benefits from a grant of antitrust immunity from the DOT and was reviewed by the EC in July 2010. In connection with this review, we provided certain commitments to the EC regarding, among other things, the availability of take-off and landing slots at LHR or LGW airports. The commitments accepted by the EC are binding for 10 years with the possibility of renewal by the EC. However, in light of Brexit and the related possibility that the EC would no

longer have regulatory responsibility for the United Kingdom when the commitments expire in July 2020, the United Kingdom CMA in October 2018 opened an investigation into the transatlantic JBA. We are cooperating fully with the CMA. Also, we had previously signed a JBA with Qantas Airways and in 2015, applied for antitrust immunity with the DOT for the revised relationship, but we withdrew that application in November 2016 after it was tentatively denied by the DOT. In February 2018, we filed a new application for antitrust immunity with the DOT, which, if granted, would allow us to further expand our relationship with Qantas Airways. This JBA has been approved by the competition law regulators in Australia and New Zealand. In addition, we have signed JBAs with certain air carriers of the LATAM Airlines Group, which JBAs have been approved in all jurisdictions other than the United States, where approval is pending. Most recently, in November 2018, the Court of Free Competition in Chile approved the JBA between American and LATAM Airlines Group with respect to both our passenger and cargo businesses. That decision has been appealed to the Chilean Supreme Court. The foregoing arrangements are important aspects of our international network and we are dependent on the performance and continued cooperation of the other airlines party to those agreements. No assurances can be given as to any benefits that we may derive from such arrangements or any other arrangements that may ultimately be implemented, or whether or not regulators will continue to approve or impose material conditions on our business activities.

Additional mergers and other forms of industry consolidation, including antitrust immunity grants, may take place and may not involve us as a participant. Depending on which carriers combine and which assets, if any, are sold or otherwise transferred to other carriers in connection with any such combinations, our competitive position relative to the post-combination carriers or other carriers that acquire such assets could be harmed. In addition, as carriers combine through traditional mergers or antitrust immunity grants, their route networks will grow, and that growth will result in greater overlap with our network, which in turn could result in lower overall market share and revenues for us. Such consolidation is not limited to the U.S., but could include further consolidation among international carriers in Europe and elsewhere.

Additionally, our AAdvantage loyalty program, which is an important element of our sales and marketing programs, faces significant and increasing competition from the loyalty programs offered by other travel companies, as well as from similar loyalty benefits offered by banks and other financial services companies. Competition among loyalty programs is intense regarding the rewards, fees, required usage, and other terms and conditions of these programs. These competitive factors affect our ability to attract and retain customers, increase usage of our loyalty program and maximize the revenue generated by our loyalty program.

Evolving data security and privacy requirements could increase our costs, and any significant data security incident could disrupt our operations, harm our reputation, expose us to legal risks and otherwise materially adversely affect our business, results of operations and financial condition.

Our business requires the secure processing and storage of sensitive information relating to our customers, employees, business partners and others. However, like any global enterprise operating in today’s digital business environment, we are subject to threats to the security of our networks and data, including threats potentially involving criminal hackers, hacktivists, state-sponsored actors, corporate espionage, employee malfeasance, and human or technological error. These threats continue to increase as the frequency, intensity and sophistication of attempted attacks and intrusions increase around the world. We have been the target of cybersecurity attacks in the past and expect that we will continue to be in the future.

Furthermore, in response to these threats there has been heightened legislative and regulatory focus on data privacy and cybersecurity in the U.S., the EU and elsewhere, particularly with respect to critical infrastructure providers, including those in the transportation sector. As a result, we must comply with a growing and fast-evolving set of legal requirements in this area, including substantive cybersecurity standards as well as requirements for notifying regulators and affected individuals in the event of a data security incident. This regulatory environment is increasingly challenging and may present material obligations and risks to our business, including significantly expanded compliance burdens, costs and enforcement risks. For example, in May 2018, the EU’s new General Data Protection Regulation, commonly referred to as GDPR, came into effect, which imposes a host of new data privacy and security requirements, imposing significant costs on us and carrying substantial penalties for non-compliance.

In addition, many of our commercial partners, including credit card companies, have imposed data security standards that we must meet. In particular, we are required by the Payment Card Industry Security Standards Council, founded by the credit card companies, to comply with their highest level of data security standards. While we continue our efforts to meet these standards, new and revised standards may be imposed that may be difficult for us to meet and could increase our costs.

A significant cybersecurity incident could result in a range of potentially material negative consequences for us, including unauthorized access to, disclosure, modification, misuse, loss or destruction of company systems or data; theft of sensitive, regulated or confidential data, such as personal identifying information or our intellectual property; the loss of functionality

of critical systems through ransomware, denial of service or other attacks; and business delays, service or system disruptions, damage to equipment and injury to persons or property. 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. The constantly changing nature of the threats means that we may not be able to prevent all data security breaches or misuse of data. Similarly, we depend on the ability of our key commercial partners, including our regional carriers, distribution partners and technology vendors, to conduct their businesses in a manner that complies with applicable security standards and assures their ability to perform on a timely basis.

In addition, the costs and operational consequences of defending against, preparing for, responding to and remediating an incident of cybersecurity breach may be substantial. As cybersecurity threats become more frequent, intense and sophisticated, costs of proactive defense measures may increase. Further, we could be exposed to litigation, regulatory enforcement or other legal action as a result of an incident, carrying the potential for damages, fines, sanctions or other penalties, as well as injunctive relief requiring costly compliance measures. A cybersecurity incident could also impact our brand, harm our reputation and adversely impact our relationship with our customers, employees and stockholders. Failure to appropriately address these issues could also give rise to potentially material legal risks and liabilities.

Our high level of debt and other obligations may limit our ability to fund general corporate requirements and obtain additional financing, may limit our flexibility in responding to competitive developments and cause our business to be vulnerable to adverse economic and industry conditions.

We have significant amounts of indebtedness and other obligations, including pension obligations, obligations to make future payments on flight equipment and property leases related to airport and other facilities, and substantial non-cancelable obligations under aircraft and related spare engine purchase agreements. Moreover, currently a substantial portion of our assets are pledged to secure our indebtedness. Our substantial indebtedness and other obligations, which are generally greater than the indebtedness and other obligations of our competitors, could have important consequences. For example, they:

- may make it more difficult for us to satisfy our obligations under our indebtedness;
- may limit our ability to obtain additional funding for working capital, capital expenditures, acquisitions, investments, integration costs, and general corporate purposes, and adversely affect the terms on which such funding can be obtained;
- require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness and other obligations, thereby reducing the funds available for other purposes;
- make us more vulnerable to economic downturns, industry conditions and catastrophic external events, particularly relative to competitors with lower relative levels of financial leverage;
- contain covenants requiring us to maintain an aggregate of at least $2.0 billion of unrestricted cash and cash equivalents and amounts available to be drawn under revolving credit facilities;
- contain restrictive covenants that could, among other things:
  - limit our ability to merge, consolidate, sell assets, incur additional indebtedness, issue preferred stock, make investments and pay dividends;
  - significantly constrain our ability to respond, or respond quickly, to unexpected disruptions in our own operations, the U.S. or global economies, or the businesses in which we operate, or to take advantage of opportunities that would improve our business, operations, or competitive position versus other airlines;
  - limit our ability to withstand competitive pressures and reduce our flexibility in responding to changing business and economic conditions; and
  - result in an event of default under our indebtedness.

Further, a substantial portion of our long-term indebtedness bears interest at fluctuating interest rates, primarily based on the London interbank offered rate (LIBOR) for deposits of U.S. dollars. LIBOR tends to fluctuate based on general short-term interest rates, rates set by the U.S. Federal Reserve and other central banks, the supply of and demand for credit in the London interbank market and general economic conditions. We have not hedged our interest rate exposure with respect to our floating rate debt. Accordingly, our interest expense for any particular period will fluctuate based on LIBOR and other

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variable interest rates. To the extent the interest rates applicable to our floating rate debt increase, our interest expense will increase, in which event we may have difficulties making interest payments and funding our other fixed costs, and our available cash flow for general corporate requirements may be adversely affected.

On July 27, 2017, the Financial Conduct Authority (the authority that regulates LIBOR) announced that it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2021. The U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, is considering replacing U.S. dollar LIBOR with a newly created index, calculated based on repurchase agreements backed by treasury securities. It is not possible to predict the effect of these changes, other reforms or the establishment of alternative reference rates in the United Kingdom, the United States or elsewhere. See also the discussion of interest rate risk in Part II, Item 7A. Quantitative and Qualitative Disclosures About Market Risk –"Interest."

These obligations also impact our ability to obtain additional financing, if needed, and our flexibility in the conduct of our business, and could materially adversely affect our liquidity, results of operations and financial condition.

We will need to obtain sufficient financing or other capital to operate successfully.

Our business plan contemplates continued significant investments related to modernizing our fleet, improving the experience of our customers and updating our facilities. Significant capital resources will be required to execute this plan. We estimate that, based on our commitments as of December 31, 2018, our planned aggregate expenditures for aircraft purchase commitments and certain engines on a consolidated basis for calendar years 2019-2023 would be approximately $8.4 billion. Accordingly, we will need substantial financing or other capital resources to finance such aircraft and engines. If we are unable to arrange financing for such aircraft and engines at customary advance rates and on terms and conditions acceptable to us, we may need to use cash from operations or cash on hand to purchase such aircraft and engines or may seek to negotiate deferrals for such aircraft and engines with the applicable aircraft and engine manufacturers. Depending on numerous factors applicable at the time we seek capital, many of which are out of our control, such as the state of the domestic and global economies, the capital and credit markets' view of our prospects and the airline industry in general, and the general availability of debt and equity capital, the financing or other capital resources that we will need may not be available to us, or may be available only on onerous terms and conditions. There can be no assurance that we will be successful in obtaining financing or other needed sources of capital to operate successfully. An inability to obtain necessary financing on acceptable terms would have a material adverse impact on our business, results of operations and financial condition.

We have significant pension and other postretirement benefit funding obligations, which may adversely affect our liquidity, results of operations and financial condition.

Our pension funding obligations are significant. The amount of these obligations will depend on the performance of investments held in trust by the pension plans, interest rates for determining liabilities and actuarial experience. The minimum funding obligation applicable to our pension plans was subject to favorable temporary funding rules that expired at the end of 2017 and, as a result, our minimum pension funding obligations will increase materially beginning in 2019. In addition, we may have significant obligations for other postretirement benefits, retiree medical and other postretirement benefits.

If our financial condition worsens, provisions in our credit card processing and other commercial agreements may adversely affect our liquidity.

We have agreements with companies that process customer credit card transactions for the sale of air travel and other services. These agreements allow these credit card processing companies, under certain conditions (including, with respect to certain agreements, the failure of American to maintain certain levels of liquidity), to hold an amount of our cash (a holdback) equal to some or all of the advance ticket sales that have been processed by that credit card processor, but for which we have not yet provided the air transportation. These credit card processing companies are not currently entitled to maintain any holdbacks pursuant to these requirements. These holdback requirements can be modified at the discretion of the credit card processing companies upon the occurrence of specific events, including material adverse changes in our financial condition. An increase in the current holdbacks, up to and including 100% of relevant advanced ticket sales, would materially reduce our liquidity. Likewise, other of our commercial agreements contain provisions that allow other entities to impose less-favorable terms, including the acceleration of amounts due,

in the event of material adverse changes in our financial condition.

Union disputes, employee strikes and other labor-related disruptions, or our inability to otherwise maintain labor costs at competitive levels may adversely affect our operations and financial performance.

Relations between air carriers and labor unions in the U.S. are governed by the RLA. Under the RLA, CBAs generally contain "amendable dates" rather than expiration dates, and the RLA requires that a carrier maintain the existing terms and conditions of employment following the amendable date through a multi-stage and usually lengthy series of bargaining processes overseen by the NMB. For the dates that the CBAs with our major work groups become amendable under the RLA, see Part I, Item 1. Business – "Employees and Labor Relations."

In the case of a CBA that is amendable under the RLA, if no agreement is reached during direct negotiations between the parties, either party may request that the NMB appoint a federal mediator. The RLA prescribes no timetable for the direct negotiation and mediation processes, and it is not unusual for those processes to last for many months or even several years. If no agreement is reached in mediation, the NMB in its discretion may declare that an impasse exists and proffer binding arbitration to the parties. Either party may decline to submit to arbitration, and if arbitration is rejected by either party, a 30-day "cooling off" period commences. During or after that period, a PEB may be established, which examines the parties' positions and recommends a solution. The PEB process lasts for 30 days and is followed by another 30-day "cooling off" period. At the end of a "cooling off" period, unless an agreement is reached or action is taken by Congress, the labor organization may exercise "self-help," such as a strike, which could materially adversely affect our business, results of operations and financial condition.

None of the unions representing our employees presently may lawfully engage in concerted slowdowns or refusals to work, such as strikes, sick-outs or other similar activity, against us. Nonetheless, there is a risk that disgruntled employees, either with or without union involvement, could engage in one or more concerted refusals to work that could individually or collectively harm the operation of our airline and impair our financial performance.

Additionally, some of our unions have brought and may continue to bring grievances to binding arbitration, including those related to wages. If successful, there is a risk these judicial or arbitral avenues could result in material additional costs that we did not anticipate. See also Part I, Item 1. Business – "Employees and Labor Relations."

As of December 31, 2018, approximately 84% of our employees were represented for collective bargaining purposes by labor unions. Currently, we believe our labor costs are competitive relative to the other large network carriers. However, we cannot provide assurance that labor costs going forward will remain competitive because we are in negotiations for some new agreements now and other agreements may become amendable, competitors may significantly reduce their labor costs or we may agree to higher-cost provisions unilaterally or in connection with our current or future labor negotiations.

Interruptions or disruptions in service at one of our key facilities could have a material adverse impact on our operations.

We operate principally through hubs in Charlotte, Chicago, Dallas/Fort Worth, Los Angeles, Miami, New York, Philadelphia, Phoenix and Washington, D.C. Substantially all of our flights either originate at or fly into one of these locations. A significant interruption or disruption in service at one of our hubs or other airports where we have a significant presence, such as LHR, resulting from ATC delays, weather conditions, natural disasters, growth constraints, performance by third-party service providers (such as electric utility or telecommunications providers), failure of computer systems, disruptions at airport facilities or other key facilities used by us to manage our operations (such as occurred in the United Kingdom at LGW on December 20, 2018 and LHR on January 8, 2019 due to unauthorized drone activity), labor relations, power supplies, fuel supplies, terrorist activities, or otherwise could result in the cancellation or delay of a significant portion of our flights and, as a result, could have a severe impact on our business, results of operations and financial condition. We have limited control, particularly in the short-term, over the operation, quality or maintenance of many of the services on which our operations depend and over whether vendors of such services will improve or continue to provide services that are essential to our business.

If we are unable to obtain and maintain adequate facilities and infrastructure throughout our system and, at some airports, adequate slots, we may be unable to operate our existing flight schedule and to expand or change our route network in the future, which may have a material adverse impact on our operations.

In order to operate our existing and proposed flight schedule and, where desirable, add service along new or existing routes, we must be able to maintain and/or obtain adequate gates, check-in counters, operations areas, operations

control facilities and administrative support space. As airports around the world become more congested, it may not be possible for us to ensure that our plans for new service can be implemented in a commercially viable manner, given operating constraints at airports throughout our network, including those imposed by inadequate facilities at desirable airports.

In light of constraints on existing facilities, there is presently a significant amount of capital spending underway at major airports in the United States, including large projects underway at a number of airports where we have significant operations, such as ORD, LAX, LGA and DCA. This spending is expected to result in increased costs to airlines and the traveling public that use those facilities as the airports seek to recover their investments through increased rental, landing and other facility costs. In some circumstances, such costs could be imposed by the relevant airport authority without our approval. Accordingly, our operating costs are expected to increase significantly at many airports at which we operate, including a number of our hubs and gateways, as a result of capital spending projects currently underway and additional projects that we expect to commence over the next several years.

In addition, operations at three major domestic airports, certain smaller domestic airports and many foreign airports served by us are regulated by governmental entities through the use of slots or similar regulatory mechanisms that limit the rights of carriers to conduct operations at those airports. Each slot represents the authorization to land at or take off from the particular airport during a specified time period and may have other operational restrictions as well. In the U.S., the DOT and the FAA currently regulate the allocation of slots or slot exemptions at DCA and two New York City airports: JFK and LGA. Our operations at these airports generally require the allocation of slots or similar regulatory authority. In addition to slot restrictions, operations at LGA and DCA are also limited based on a so-called "perimeter rule" which generally limits the stage length of the flights that can be operated from those airports to 1,500 and 1,250 miles, respectively. Similarly, our operations at LHR, international airports in Beijing, Frankfurt, Paris, Tokyo and other airports outside the U.S. are regulated by local slot authorities pursuant to the IATA Worldwide Scheduling Guidelines and/or applicable local law. Termination of slot controls at some or all of the foregoing airports could affect our operational performance and competitive position. We currently have sufficient slots or analogous authorizations to operate our existing flights and we have generally, but not always, been able to obtain the rights to expand our operations and to change our schedules. However, there is no assurance that we will be able to obtain sufficient slots or analogous authorizations in the future or as to the cost of acquiring such rights because, among other reasons, such allocations are often sought after by other airlines and are subject to changes in governmental policies. We cannot provide any assurance that regulatory changes regarding the allocation of slots, the continued enforcement of a perimeter rule or similar regulatory authority will not have a material adverse impact on our operations.

Our ability to provide service can also be impaired at airports, such as ORD and LAX where the airport gate and other facilities are currently inadequate to accommodate all of the service that we would like to provide, or airports such as Dallas Love Field Airport where we have no access to gates at all.

Any limitation on our ability to acquire or maintain adequate gates, ticketing facilities, operations areas, operations control facilities, slots (where applicable), or office space could have a material adverse effect on our business, results of operations and financial condition.

If we encounter problems with any of our third-party regional operators or third-party service providers, our operations could be adversely affected by a resulting decline in revenue or negative public perception about our services.

A significant portion of our regional operations are conducted by third-party operators on our behalf, substantially all of which are provided for under capacity purchase agreements. Due to our reliance on third parties to provide these essential services, we are subject to the risk of disruptions to their operations, which may result from many of the same risk factors disclosed in this report, such as the impact of adverse economic conditions, the inability of third parties to hire or retain skilled personnel, including pilots and mechanics, and other risk factors, such as an out-of-court or bankruptcy restructuring of any of our regional operators. Many of these third-party regional operators provide significant regional capacity that we would be unable to replace in a short period of time should that operator fail to perform its obligations to us. Disruptions to capital markets, shortages of skilled personnel and adverse economic conditions in general have subjected certain of these third-party regional operators to significant financial pressures, which have in the past and may in the future lead to bankruptcies among these operators. We may also experience disruption to our regional operations if we terminate the capacity purchase agreement with one or more of our current operators and transition the services to another provider. Any significant disruption to our regional operations would have a material adverse effect on our business, results of operations and financial condition.

In addition, our reliance upon others to provide essential services on behalf of our operations may result in our relative inability to control the efficiency and timeliness of contract services. We have entered into agreements with contractors to provide various facilities and services required for our operations, including distribution and sale of airline seat inventory, reservations, provision of information technology and services, regional operations, aircraft maintenance, ground services and facilities and baggage handling. Similar agreements may be entered into in any new markets we decide to serve. These agreements are generally subject to termination after notice by the third-party service provider. We are also at risk should one

of these service providers cease operations, and there is no guarantee that we could replace these providers on a timely basis with comparably priced providers, or at all. Any material problems with the efficiency and timeliness of contract services, resulting from financial hardships or otherwise, could have a material adverse effect on our business, results of operations and financial condition.

The commercial relationships that we have with airlines, including any related equity investment, may not produce the returns or results we expect.

An important part of our strategy to expand our network has been to expand our commercial relationships with other airlines, such as by entering into global alliance, joint business and codeshare relationships, and, in one recent instance involving China Southern Airlines, by making a significant equity investment in another airline in connection with initiating such a commercial relationship. We may explore similar non-controlling investments in, and joint ventures and strategic alliances with, other carriers as part of our global business strategy. We face competition in forming these commercial relationships since there are a limited number of potential arrangements and other airlines are looking to enter into similar relationships. Any such existing or future investment could 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 revenue synergies. These events could have a material adverse effect on our business, results of operations and financial condition.

We rely on third-party distribution channels and must manage effectively the costs, rights and functionality of these channels.

We rely on third-party distribution channels, including those provided by or through global distribution systems (GDSs) (e.g., Amadeus, Sabre and Travelport), conventional travel agents, travel management companies and online travel agents (OTAs) (e.g., Expedia, including its booking sites Orbitz and Travelocity, and The Priceline Group), to distribute a significant portion of our airline tickets, and we expect in the future to continue to rely on these channels. We are also dependent upon the ability and willingness of these distribution channels to expand their ability to distribute and collect revenues for ancillary products (e.g., fees for selective seating). These distribution channels are more expensive and at present have less functionality in respect of ancillary product offerings than those we operate ourselves, such as our website at www.aa.com. Certain of these distribution channels also effectively restrict the manner in which we distribute our products generally. To remain competitive, we will need to manage successfully our distribution costs and rights, increase our distribution flexibility and improve the functionality of our distribution channels, while maintaining an industry-competitive cost structure. Further, as distribution technology changes we will need to continue to update our technology by acquiring new technology from third parties, building the functionality ourselves, or a combination, which in any event will likely entail significant technological and commercial risk and involve potentially material investments. These imperatives may affect our relationships with conventional travel agents, travel management companies, GDSs and OTAs, including if consolidation of conventional travel agents, travel management companies, GDSs or OTAs continues, or should any of these parties seek to acquire other technology providers thereby potentially limiting our technology alternatives, such as the proposed acquisition of Farelogix by Sabre. Any inability to manage our third-party distribution costs, rights and functionality at a competitive level or any material diminishment or disruption in the distribution of our tickets could have a material adverse effect on our business, results of operations and financial condition.

Our business is subject to extensive government regulation, which may result in increases in our costs, disruptions to our operations, limits on our operating flexibility, reductions in the demand for air travel, and competitive disadvantages.

Airlines are subject to extensive domestic and international regulatory requirements. In the last several years, Congress has passed laws, and the DOT, the FAA, the TSA and the DHS have issued a number of directives and other regulations, that affect the airline industry. These requirements impose substantial costs on us and restrict the ways we may conduct our business.

For example, the FAA from time to time issues directives and other regulations relating to the maintenance and operation of aircraft that require significant expenditures or operational restrictions. These requirements can be issued with little or no notice, or can otherwise impact our ability to efficiently or fully utilize our aircraft, and in some instances have resulted in the temporary grounding of aircraft types altogether, or otherwise caused substantial

disruption and resulted in material costs to us and lost revenues. The FAA also exercises comprehensive regulatory authority over nearly all technical aspects of our operations. Our failure to comply with such requirements has in the past and may in the future result in fines and other enforcement actions by the FAA or other regulators. In the future, any new regulatory requirements, particularly requirements that limit our ability to operate or price our products, could have a material adverse effect on us and the industry.

DOT consumer rules dictate procedures for customer handling during long onboard delays, further regulate airline interactions with passengers, including passengers with disabilities, through the ticketing process, at the airport, and onboard the aircraft, and require disclosures concerning airline fares and ancillary fees such as baggage fees. Other DOT rules apply to post-ticket purchase price increases and an expansion of tarmac delay regulations to international airlines.

The Aviation and Transportation Security Act mandates the federalization of certain airport security procedures and imposes additional security requirements on airports and airlines, most of which are funded by a per-ticket tax on passengers and a tax on airlines. Present and potential future security requirements can have the effect of imposing costs and inconvenience on travelers, potentially reducing the demand for air travel.

The results of our operations, demand for air travel, and the manner in which we conduct business each may be affected by changes in law and future actions taken by governmental agencies, including:

- changes in law that affect the services that can be offered by airlines in particular markets and at particular airports, or the types of fares offered or fees that can be charged to passengers;
- the granting and timing of certain governmental approvals (including antitrust or foreign government approvals) needed for codesharing alliances, joint businesses and other arrangements with other airlines;
- restrictions on competitive practices (for example, court orders, or agency regulations or orders, that would curtail an airline's ability to respond to a competitor);
- the adoption of new passenger security standards or regulations that impact customer service standards;
- restrictions on airport operations, such as restrictions on the use of slots at airports or the auction or reallocation of slot rights currently held by us; and
- the adoption of more restrictive locally-imposed noise restrictions.

Each additional regulation or other form of regulatory oversight increases costs and adds greater complexity to airline operations and, in some cases, may reduce the demand for air travel. There can be no assurance that our compliance with new rules, anticipated rules or other forms of regulatory oversight will not have a material adverse effect on us.

Any significant reduction in air traffic capacity at and in the airspace serving key airports in the U.S. or overseas could have a material adverse effect on our business, results of operations and financial condition. In addition, the United States National Airspace System (the ATC system) is not successfully modernizing to meet the growing demand for U.S. air travel. Air traffic controllers rely on outdated procedures and technologies that routinely compel airlines to fly inefficient routes or take significant delays on the ground. The ATC system's inability to manage existing travel demand has led government agencies to implement short-term capacity constraints during peak travel periods or adverse weather conditions in certain markets, resulting in delays and disruptions of air traffic. The outdated technologies also cause the ATC system to be less resilient in the event of a failure. For example, an automation failure and an evacuation, in 2015 and 2017, respectively, at the Washington Air Route Control Center resulted in cancellations and delays of hundreds of flights traversing the greater Washington, D.C. airspace.

In the early 2000s, the FAA embarked on a path to modernize the national airspace system, including migration from the current radar-based ATC system to a GPS-based system. This modernization of the ATC system, generally referred to as "NextGen," has been plagued by delays and cost overruns, and it remains uncertain when the full array of benefits expected from this modernization will be available to the public and the airlines. Failure to update the ATC system in a timely manner and the substantial costs that may be imposed on airlines in order to fund a modernized ATC system may have a material adverse effect on our business.

Further, our business has been adversely impacted when government agencies have ceased to operate as expected including due to partial shut-downs, sequestrations or similar events. These events have resulted in, among other things, reduced demand for air travel, an actual or perceived reduction in ATC and security screening resources and related travel delays, as well as disruption in the ability of the FAA to grant required regulatory approvals, such as are involved when a new aircraft is first placed into service.

Our operating authority in international markets is subject to aviation agreements between the U.S. and the respective countries or governmental authorities, such as the EU, and in some cases, fares and schedules require the approval of the DOT and/or the relevant foreign governments. Moreover, alliances with international carriers may be subject to the jurisdiction and regulations of various foreign agencies. The U.S. government has negotiated "open skies"

agreements with many

countries, which allow unrestricted route authority access between the U.S. and the foreign markets. While the U.S. has worked to increase the number of countries with which open skies agreements are in effect, a number of markets important to us, including China, do not have open skies agreements. For example, the open skies air services agreement between the U.S. and the EU, which took effect in March 2008, provides airlines from the U.S. and EU member states open access to each other's markets, with freedom of pricing and unlimited rights to fly from the U.S. to any airport in the EU, including LHR. As a result of the agreement and a subsequent open skies agreement involving the U.S. and the United Kingdom, which was agreed in anticipation of Brexit, we face increased competition in these markets, including LHR. Bilateral and multilateral agreements among the U.S. and various foreign governments of countries we serve but which are not covered by an open skies treaty are subject to periodic renegotiation. We currently operate a number of international routes under government arrangements that limit the number of airlines permitted to operate on the route, the capacity of the airlines providing services on the route, or the number of airlines allowed access to particular airports. If an open skies policy were to be adopted for any of these markets, it could have a material adverse impact on us and could result in the impairment of material amounts of our related tangible and intangible assets. In addition, competition from foreign airlines, revenue-sharing joint ventures, JBAs, and other alliance arrangements by and among other airlines could impair the value of our business and assets on the open skies routes.

The pending withdrawal of the United Kingdom from the EU, commonly referred to as Brexit, is currently scheduled to occur on March 29, 2019 and will mandate further modification in the current regulatory regime. We face risks associated with the United Kingdom's exit from the EU, notably given the extent of our passenger and cargo traffic and that of our joint business partners that flows through LHR in the United Kingdom. Absent an approved withdrawal agreement between the United Kingdom and the EU (resulting in the so-called "No Deal Brexit" scenario), our expectation is that air services (including those involving our joint business and code share partners) will continue substantially as we currently conduct them, at least for a transition period, in reliance on reciprocal "basic connectivity" traffic rights proposed by the EU and the United Kingdom and a new air services agreement between the U.S. and United Kingdom concluded on November 29, 2018. However, the precise scope of traffic rights between the EU and the United Kingdom remains uncertain and therefore the continuation of our current services is not assured and could be subject to disruption. If Brexit is accomplished pursuant to a withdrawal agreement consistent with the agreement presently being discussed between the United Kingdom and the EU, but which has yet to be approved by the United Kingdom, our current air services would continue as we currently conduct them during a transition period running through the end of 2020, with a potential extension of up to two years. During that transition period, the United Kingdom and the EU would seek to implement a new air services agreement. We cannot predict the terms of any such successor air services agreement or whether changes in the relationship between the United Kingdom and the EU, including whether or not the United Kingdom withdraws from the EU with or without an agreement, could materially adversely affect our business, results of operations and financial condition. More generally, changes in U.S. or foreign government aviation policies could result in the alteration or termination of such agreements, diminish the value of route authorities, slots or other assets located abroad, or otherwise adversely affect our international operations.

The airline industry is heavily taxed.

The airline industry is subject to extensive government fees and taxation that negatively impact our revenue and profitability. The U.S. airline industry is one of the most heavily taxed of all industries. These fees and taxes have grown significantly in the past decade for domestic flights, and various U.S. fees and taxes also are assessed on international flights. For example, as permitted by federal legislation, most major U.S. airports impose a passenger facility charge per passenger on us. In addition, the governments of foreign countries in which we operate impose on U.S. airlines, including us, various fees and taxes, and these assessments have been increasing in number and amount in recent years. Moreover, we are obligated to collect a federal excise tax, commonly referred to as the "ticket tax," on domestic and international air transportation. We collect the excise tax, along with certain other U.S. and foreign taxes and user fees on air transportation (such as passenger security fees), and pass along the collected amounts to the appropriate governmental agencies. Although these taxes and fees are not our operating expenses, they represent an additional cost to our customers. There are continuing efforts in Congress and in other countries to raise different portions of the various taxes, fees, and charges imposed on airlines and their passengers, including the passenger

facility charge, and we may not be able to recover all of these charges from our customers. Increases in such taxes, fees and charges could negatively impact our business, results of operations and financial condition.

Under DOT regulations, all governmental taxes and fees must be included in the prices we quote or advertise to our customers. Due to the competitive revenue environment, many increases in these fees and taxes have been absorbed by the airline industry rather than being passed on to the customer. Further increases in fees and taxes may reduce demand for air travel, and thus our revenues.

Recent U.S. tax legislation may adversely affect our financial condition, results of operations and cash flows.
Recently enacted U.S. tax legislation has significantly changed the U.S. federal income taxation of U.S. corporations, including by reducing the U.S. corporate income tax rate, limiting interest deductions, permitting immediate expensing of certain capital expenditures, adopting elements of a territorial tax system, revising the rules governing net operating losses (NOLs) and the rules governing foreign tax credits and introducing new anti-base erosion provisions. Many of these changes became effective immediately, without any transition periods or grandfathering for existing transactions. The legislation is unclear in many respects and could be subject to potential amendments and technical corrections, as well as interpretations and implementation regulations by the Treasury and Internal Revenue Service, any of which could materially affect the impacts of the legislation. In addition, it is unclear how these U.S. federal income tax changes will affect state and local taxation, which often uses federal taxable income as a starting point for computing state and local tax liabilities. While some of the changes made by the tax legislation may adversely affect us in one or more reporting periods and prospectively, other changes may be beneficial on a going forward basis.
See Note 7 to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 5 to American's Consolidated Financial Statements in Part II, Item 8B for additional information on income taxes.
Changes to our business model that are designed to increase revenues may not be successful and may cause operational difficulties or decreased demand.
We have recently instituted, and intend to institute in the future, changes to our business model designed to increase revenues and offset costs. These measures include further segmentation of the classes of services we offer, such as Premium Economy service and Basic Economy service, enhancements to our AAdvantage loyalty program, charging separately for services that had previously been included within the price of a ticket, increasing other pre-existing fees, reconfiguration of our aircraft cabins, and efforts to optimize our network including by focusing growth on a limited number of large hubs. We may introduce additional initiatives in the future; however, as time goes on, we expect that it will be more difficult to identify and implement additional initiatives. We cannot assure you that these measures or any future initiatives will be successful in increasing our revenues. Additionally, the implementation of these initiatives may create logistical challenges that could harm the operational performance of our airline or result in decreased demand. Also, our implementation of any new or increased fees might reduce the demand for air travel on our airline or across the industry in general, particularly if weakened economic conditions make our customers more sensitive to increased travel costs or provide a significant competitive advantage to other carriers that determine not to institute similar charges.
The loss of key personnel upon whom we depend to operate our business or the inability to attract additional qualified personnel could adversely affect our business.
We believe that our future success will depend in large part on our ability to retain or attract highly qualified management, technical and other personnel. We may not be successful in retaining key personnel or in attracting other highly qualified personnel. Any inability to retain or attract significant numbers of qualified management and other personnel would have a material adverse effect on our business, results of operations and financial condition.
We may be adversely affected by conflicts overseas or terrorist attacks; the travel industry continues to face ongoing security concerns.
Acts of terrorism or fear of such attacks, including elevated national threat warnings, wars or other military conflicts, may depress air travel, particularly on international routes, and cause declines in revenues and increases in costs. The attacks of September 11, 2001 and continuing terrorist threats, attacks and attempted attacks materially impacted and continue to impact air travel. Increased security procedures introduced at airports since the attacks of September 11, 2001 and any other such measures that may be introduced in the future generate higher operating costs for airlines. The Aviation and Transportation Security Act mandated improved flight deck security, deployment of federal air marshals on board flights, improved airport perimeter access security, airline crew security training, enhanced security screening of passengers, baggage, cargo, mail, employees and vendors, enhanced training and qualifications of security screening personnel, additional provision of passenger data to the U.S. Customs and Border Protection Agency and enhanced background checks. A concurrent increase in airport security charges and procedures, such as restrictions on carry-on baggage, has also had and may continue to have a disproportionate impact on short-haul

travel, which constitutes a significant portion of our flying and revenue. Implementation of and compliance with increasingly-complex security and customs requirements will continue to result in increased costs for us and our passengers, and have caused and likely will continue to cause periodic service disruptions and delays. We have at times found it necessary or desirable to make significant expenditures to comply with security-related requirements while seeking to reduce their impact on our customers, such as expenditures for automated security screening lines at airports. As a result of competitive pressure, and the need to improve security screening throughput

to support the pace of our operations, it is unlikely that we will be able to capture all security-related costs through increased fares. In addition, we cannot forecast what new security requirements may be imposed in the future, or their impact on our business.

We operate a global business with international operations that are subject to economic and political instability and have been, and in the future may continue to be, adversely affected by numerous events, circumstances or government actions beyond our control.

We operate a global business with significant operations outside of the U.S. Our current international activities and prospects have been and in the future could be adversely affected by government policies, reversals or delays in the opening of foreign markets, increased competition in international markets, the performance of our alliance, joint business and codeshare partners in a given market, exchange controls or other restrictions on repatriation of funds, currency and political risks (including changes in exchange rates and currency devaluations), environmental regulation, increases in taxes and fees and changes in international government regulation of our operations, including the inability to obtain or retain needed route authorities and/or slots. Fluctuations in foreign currencies, including devaluations, exchange controls and other restrictions on the repatriation of funds, have significantly affected and may continue to significantly affect our operating performance, liquidity and the value of any cash held outside the U.S. in local currency. Such fluctuations in foreign currencies, including devaluations, cannot be predicted by us and can significantly affect the value of our assets located outside the United States. These conditions, as well as any further delays, devaluations or imposition of more stringent repatriation restrictions, may materially adversely affect our business, results of operations and financial condition.

More generally, much of the demand for international air travel is the result of business travel in support of global trade. Should protectionist governmental policies, such as increased tariff barriers, travel limitation and other actions, have the effect of reducing global commercial activity, the result could be a material decrease in the demand for international air travel.

The United Kingdom held a referendum in June 2016 regarding its membership in the EU in which a majority of the United Kingdom electorate voted in favor of the British government taking the necessary action for the United Kingdom to leave the EU, an event commonly referred to as Brexit. In March 2017, the United Kingdom served notice of its decision to withdraw from the EU, formally initiating the withdrawal process. Serving this notice began the two-year period for the United Kingdom to negotiate the terms for its withdrawal from the EU, currently scheduled to occur on March 29, 2019. We face risks associated with the uncertainty following the referendum and the consequences that may flow from the decision to exit the EU, notably given the extent of our passenger and cargo traffic and that of our joint business partners that flows through LHR in the United Kingdom. Absent an approved withdrawal agreement between the United Kingdom and the EU (resulting in the so-called “No Deal Brexit” scenario), our expectation is that air services (including those involving our joint business and code share partners) will continue substantially as we currently conduct them, at least for a transition period, in reliance on reciprocal “basic connectivity” traffic rights proposed by the EU and the United Kingdom and the new air services agreements between the U.S. and United Kingdom concluded on November 29, 2018. However, the precise scope of traffic rights between the EU and the United Kingdom remains uncertain and therefore the continuation is not assured and could be subject to disruption. If Brexit is accomplished pursuant to a withdrawal agreement consistent with the agreement presently being discussed between the United Kingdom and the EU, but which has yet to be approved by the United Kingdom, our current air services would continue as we currently conduct them during a transition period running through the end of 2020, with a potential extension of up to two years. During that transition period, the United Kingdom and the EU would seek to implement a new air services agreement. We cannot predict the terms of any such successor air services agreement or whether changes in the relationship between the United Kingdom and the EU, including whether or not the United Kingdom withdraws from the EU with or without an agreement, could materially adversely affect our business, results of operations and financial condition.

Moreover, the exit of the United Kingdom from the EU could adversely affect European or worldwide economic or market conditions and could contribute to further instability in global financial markets. In addition, the exit of the United Kingdom from the EU has created uncertainty as to the future trade relationship between the EU and the United Kingdom, including air traffic services. LHR is presently a very important element of our international

network, however it may become less desirable as a destination or as a hub location after Brexit when compared to other airports in Europe. The exit of the United Kingdom from the EU could also lead to legal and regulatory uncertainty such as the identity of the relevant regulators, new regulatory action and/or potentially divergent treaties, laws and regulations as the United Kingdom determines which EU treaties, laws and regulations to replace or replicate, including those governing aviation, labor, environmental, data protection/privacy, competition and other matters applicable to the provision of air transportation services by us or our alliance, joint business or codeshare partners. For example, in light of Brexit and the related possibility that the EC would no longer have regulatory responsibility for the United Kingdom when existing regulatory commitments are scheduled to expire in 2020, the United Kingdom CMA in October 2018 opened an investigation into our transatlantic JBA. We are cooperating fully with the CMA. The impact on our business of any treaties, laws and regulations that replace the existing EU counterparts, or other

governmental or regulatory actions taken by the United Kingdom or the EU in connection with or subsequent to Brexit, cannot be predicted, including whether or not regulators will continue to approve or impose material conditions on our business activities. Any of these effects, and others we cannot anticipate, could materially adversely affect our business, results of operations and financial condition.

We are subject to many forms of environmental and noise regulation and may incur substantial costs as a result.

We are subject to increasingly stringent federal, state, local and foreign laws, regulations and ordinances relating to the protection of the environment and noise reduction, including those relating to emissions to the air, discharges to surface and subsurface waters, safe drinking water, and the management of hazardous substances, oils and waste materials. Compliance with environmental laws and regulations can require significant expenditures, and violations can lead to significant fines and penalties.

We are also subject to other environmental laws and regulations, including those that require us to investigate and remediate soil or groundwater to meet certain remediation standards. Under federal law, generators of waste materials, and current and former owners or operators of facilities, can be subject to liability for investigation and remediation costs at locations that have been identified as requiring response actions. Liability under these laws may be strict, joint and several, meaning that we could be liable for the costs of cleaning up environmental contamination regardless of fault or the amount of waste directly attributable to us. We have liability for investigation and remediation costs at various sites, although such costs currently are not expected to have a material adverse effect on our business.

We have various leases and agreements with respect to real property, tanks and pipelines with airports and other operators. Under these leases and agreements, we have agreed to indemnify the lessor or operator against environmental liabilities associated with the real property or operations described under the agreement, in some cases even if we are not the party responsible for the initial event that caused the environmental damage. We also participate in leases with other airlines in fuel consortiums and fuel committees at airports, where such indemnities are generally joint and several among the participating airlines.

Governmental authorities in several U.S. and foreign cities are also considering, or have already implemented, aircraft noise reduction programs, including the imposition of nighttime curfews and limitations on daytime take offs and landings. We have been able to accommodate local noise restrictions imposed to date, but our operations could be adversely affected if locally-imposed regulations become more restrictive or widespread.

Our intellectual property rights, particularly our branding rights, are valuable, and any inability to protect them may adversely affect our business and financial results.

We consider our intellectual property rights, particularly our branding rights such as our trademarks applicable to our airline and AAdvantage loyalty program, to be a significant and valuable aspect of our business. We protect our intellectual property rights through a combination of trademark, copyright and other forms of legal protection, contractual agreements and policing of third-party misuses of our intellectual property. Our failure to obtain or adequately protect our intellectual property or any change in law that lessens or removes the current legal protections of our intellectual property may diminish our competitiveness and adversely affect our business and financial results. Any litigation or disputes regarding intellectual property may be costly and time-consuming and may divert the attention of our management and key personnel from our business operations, either of which may adversely affect our business and financial results.

We are subject to risks associated with climate change, including increased regulation to reduce emissions of greenhouse gases.

There is increasing global regulatory focus on climate change and GHG emissions. Efforts by the EU in 2009 to regulate flights arriving from or departing for airports outside of the EU have been postponed as members of ICAO are negotiating a global agreement on GHG emissions from the aviation sector. In 2016, ICAO passed a resolution adopting CORSIA, which is a global, market-based emissions offset program intended to encourage carbon-neutral growth beyond 2020. CORSIA was supported by the board of Airlines for America (the principal U.S. airline trade association) and IATA (the principal international airline trade association), and by American and many other U.S. and foreign airlines. In March 2017, ICAO also adopted new aircraft certification standards to reduce carbon dioxide emissions from aircraft, which will apply to new aircraft type designs in 2020, and to aircraft type designs already in production as of 2023. On June 27, 2018, ICAO adopted standards pertaining to the collection and sharing of

information on international aviation emissions beginning in 2019. Airline operators must prepare GHG monitoring plans by February 2019. CORSIA will increase operating costs for American and most other airlines, including other U.S. airlines that operate internationally, but the implementation of a global program, as compared to regional emission reduction schemes, should ensure that these costs will be more evenly applied to American and its

competitors since there will be a common global regulatory regime. CORSIA is expected to be implemented in phases, with information collection and sharing beginning in 2019, a pilot phase beginning in 2021, and the first phase beginning in 2024. Certain details still need to be developed and the impact of CORSIA cannot be fully predicted. While we do not anticipate any significant emissions allowance expenditures in 2019, compliance with CORSIA or similar emissions-related requirements could significantly increase our operating costs beginning in 2021 and beyond.
Separately, the EU has established the ETS to regulate GHG emissions in the EU. The EU adopted a directive in 2008 under which each EU member state is required to extend the ETS to aviation operations. However, the EU ETS has never fully been imposed, in large part due to the effort to adopt CORSIA. The EU has extended its stay on the extra-territorial application of the EU ETS as applied to international flights to/from the EEA through year-end 2023, contingent on successful implementation of CORSIA. Thereafter, the EU will assess CORSIA implementation and decide the future status of the EU ETS as applied to international aviation to/from the EEA. The potential impact of CORSIA or other emissions-related requirements on our costs will ultimately depend on a number of factors, including baseline emissions, the price of emission allowances or offsets that American would need to acquire, the GHG efficiency of the American fleet, and the number of future American flights subject to such emissions-related requirements. These costs have not been completely defined and could fluctuate.
In 2019, the EPA could finalize a rule implementing aircraft engine GHG emission standards developed initially through ICAO. It is anticipated that the EPA rule will closely align with recent ICAO carbon dioxide emission standards. The new standards, which were supported by the airline industry and manufacturers, would apply to new type aircraft certified beginning in 2020, and would be phased in for newly manufactured existing aircraft type designs starting in 2023.
In addition, several states have adopted or are considering initiatives to regulate GHG emissions, primarily through the planned development of GHG emissions inventories, regional GHG cap and trade programs or low carbon fuels programs. Depending on the scope of such regulation, certain of our facilities and operations, or the operations of our suppliers, may be subject to additional operating and other permit requirements, likely resulting in increased operating costs.
In addition, in December 2015, at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, over 190 countries, including the United States, reached an agreement (the Paris Agreement) to reduce GHG emissions. While the United States has since announced that it will withdraw from the Paris Agreement and there is no express reference to aviation in the Paris Agreement, to the extent countries implement the Paris Agreement or impose other climate change regulations, either with respect to the aviation industry or with respect to related industries such as the aviation fuel industry, it could have an adverse direct or indirect effect on our business. These regulatory efforts, both internationally and in the U.S. at the federal and state levels, are still developing, and we cannot yet determine what the final regulatory programs or their impact will be in the U.S., the EU or in other areas in which we do business. However, such climate change-related regulatory activity in the future may adversely affect our business and financial results by requiring us to reduce our emissions, purchase allowances or otherwise pay for our emissions. Such activity may also impact us indirectly by increasing our operating costs, including fuel costs.
Any damage to our reputation or brand image could adversely affect our business or financial results.
Maintaining a good reputation globally is critical to our business. Our reputation or brand image could be adversely impacted by any failure to maintain high ethical, social and environmental sustainability practices for all of our operations and activities, our impact on the environment, public pressure from investors or policy groups to change our policies, such as movements to institute a “living wage,” customer perceptions of our advertising campaigns, sponsorship arrangements or marketing programs, customer perceptions of our use of social media, or customer perceptions of statements made by us, our employees and executives, agents or other third parties. Damage to our reputation or brand image or loss of customer confidence in our services could adversely affect our business and financial results, as well as require additional resources to rebuild our reputation.

We face challenges in integrating our computer, communications and other technology systems.

Among the principal risks of integrating our businesses and operations are the risks relating to integrating various computer, communications and other technology systems that are necessary to operate US Airways and American as a single integrated business and to achieve cost synergies by eliminating redundancies. While we have to date successfully integrated many of our systems, including our customer reservations system and our pilot, flight attendant and fleet scheduling system, we still have to complete several additional important system integration or replacement projects. In a number of prior airline mergers, the integration of these systems or deployment of replacement systems has taken longer, been more disruptive and cost more than originally forecasted. The implementation process to integrate or replace these various systems will involve a number of risks that could adversely impact our business, results of operations and financial condition. New systems will replace multiple legacy systems and the related implementation will be a complex and time-consuming project involving substantial expenditures for implementation consultants, system hardware, software and implementation activities, as well as the transformation of business and financial processes.

We cannot assure you that our security measures, change control procedures or disaster recovery plans will be adequate to prevent disruptions or delays in connection with systems integration or replacement. Disruptions in or changes to these systems could result in a disruption to our business and the loss of important data. Any of the foregoing could result in a material adverse effect on our business, results of operations and financial condition.

We rely heavily on technology and automated systems to operate our business, and any failure of these technologies or systems could harm our business, results of operations and financial condition.

We are highly dependent on existing and emerging technology and automated systems to operate our business. These technologies and systems include our computerized airline reservation system, flight operations systems, financial planning, management and accounting systems, telecommunications systems, website, maintenance systems and check-in kiosks. In order for our operations to work efficiently, our website and reservation system must be able to accommodate a high volume of traffic, maintain secure information and deliver flight information, as well as issue electronic tickets and process critical financial information in a timely manner. Substantially all of our tickets are issued to passengers as electronic tickets. We depend on our reservation system, which is hosted and maintained under a long-term contract by a third-party service provider, to be able to issue, track and accept these electronic tickets. If our technologies or automated systems are not functioning or if our third-party service providers were to fail to adequately provide technical support, system maintenance or timely software upgrades for any one of our key existing systems, we could experience service disruptions or delays, which could harm our business and result in the loss of important data, increase our expenses and decrease our revenues. In the event that one or more of our primary technology or systems vendors goes into bankruptcy, ceases operations or fails to perform as promised, replacement services may not be readily available on a timely basis, at competitive rates or at all, and any transition time to a new system may be significant.

Our technologies and automated systems cannot be completely protected against events that are beyond our control, including natural disasters, power failures, terrorist attacks, cyber-attacks, data theft, equipment and software failures, computer viruses or telecommunications failures. Substantial or sustained system failures could cause service delays or failures and result in our customers purchasing tickets from other airlines. We cannot assure you that our security measures, change control procedures or disaster recovery plans are adequate to prevent disruptions or delays. Disruption in or changes to these technologies or systems could result in a disruption to our business and the loss of important data. Any of the foregoing could result in a material adverse effect on our business, results of operations and financial condition.

We are at risk of losses and adverse publicity stemming from any public incident involving our company, our people or our brand, including any accident or other public incident involving our personnel or aircraft, or the personnel or aircraft of our regional, codeshare or joint business operators.

In a modern world where news can be captured and travel rapidly, we are at risk of adverse publicity stemming from any public incident involving our company, our people or our brand. Such an incident could involve the actual or alleged behavior of any of our more than 125,000 employees. Further, if our personnel or one of our aircraft, or personnel of, or an aircraft that is operated under our brand by, one of our regional operators or an airline with which

we have a marketing alliance, joint business or codeshare relationship, were to be involved in a public incident, accident or catastrophe, we could be exposed to significant reputational harm and potential legal liability. The insurance we carry may be inapplicable or inadequate to cover any such incident, accident or catastrophe. In the event that our insurance is inapplicable or not adequate, we may be forced to bear substantial losses from an incident or accident. In addition, any such incident, accident or catastrophe involving our personnel or one of our aircraft (or personnel and aircraft of our regional operators and our codeshare partners) could create an adverse public perception, which could harm our reputation, result in air travelers being reluctant to fly on our

aircraft or those of our regional operators or codeshare partners, and adversely impact our business, results of operations and financial condition.

Delays in scheduled aircraft deliveries or other loss of anticipated fleet capacity, and failure of new aircraft to perform as expected, may adversely impact our business, results of operations and financial condition.

The success of our business depends on, among other things, effectively managing the number and types of aircraft we operate. If for any reason we are unable to accept or secure deliveries of new aircraft on contractually scheduled delivery dates, this could have a negative impact on our business, results of operations and financial condition. Our failure to integrate newly purchased aircraft into our fleet as planned might require us to seek extensions of the terms for some leased aircraft or otherwise delay the exit of certain aircraft from our fleet. Such unanticipated extensions or delays may require us to operate existing aircraft beyond the point at which it is economically optimal to retire them, resulting in increased maintenance costs. If new aircraft orders are not filled on a timely basis, we could face higher operating costs than planned. In addition, if the aircraft we receive do not meet expected performance or quality standards, including with respect to fuel efficiency and reliability, our business, results of operations and financial condition could be adversely impacted.

We depend on a limited number of suppliers for aircraft, aircraft engines and parts.

We depend on a limited number of suppliers for aircraft, aircraft engines and many aircraft and engine parts. For example, under our current fleet plan, by 2020 all of our mainline aircraft will have been manufactured by either Airbus or Boeing and all of our regional aircraft will have been manufactured by either Bombardier or Embraer. Further, our supplier base continues to consolidate as evidenced by the recent acquisition of Rockwell Collins by United Technologies, the recently completed transaction involving Airbus and Bombardier and the pending transaction involving Boeing and Embraer. Due to the limited number of these suppliers, we are vulnerable to any problems associated with the performance of their obligation to supply key aircraft, parts and engines, including design defects, mechanical problems, contractual performance by suppliers, adverse perception by the public that would result in customer avoidance of any of our aircraft or any action by the FAA or any other regulatory authority resulting in an inability to operate our aircraft, even temporarily.

Our business has been and will continue to be affected by many changing economic and other conditions beyond our control, including global events that affect travel behavior, and our results of operations could be volatile and fluctuate due to seasonality.

Our business, results of operations and financial condition have been and will continue to be affected by many changing economic and other conditions beyond our control, including, among others:

- actual or potential changes in international, national, regional and local economic, business and financial conditions, including recession, inflation, higher interest rates, wars, terrorist attacks and political instability;
- changes in consumer preferences, perceptions, spending patterns and demographic trends;
- changes in the competitive environment due to industry consolidation, changes in airline alliance affiliations, and other factors;
- actual or potential disruptions to the ATC systems;
- increases in costs of safety, security, and environmental measures;
- outbreaks of diseases that affect travel behavior; and
- weather and natural disasters, including increases in such disasters and related costs caused by more severe weather due to climate change.

In particular, an outbreak of a contagious disease such as the Ebola virus, Middle East Respiratory Syndrome, Severe Acute Respiratory Syndrome, H1N1 influenza virus, avian flu, Zika virus or any other similar illness, if it were to become associated with air travel or persist for an extended period, could materially affect the airline industry and us by reducing revenues and adversely impacting our operations and passengers' travel behavior. As a result of these or other conditions beyond our control, our results of operations could be volatile and subject to rapid and unexpected change. In addition, due to generally weaker demand for air travel during the winter, our revenues in the first and fourth quarters of the year could be weaker than revenues in the second and third quarters of the year.

A higher than normal number of pilot retirements, more stringent duty time regulations, increased flight hour requirement for commercial airline pilots, reductions in the number of military pilots entering the commercial workforce and other factors have caused a shortage of pilots that could materially adversely affect our business.

We currently have a higher than normal number of pilots eligible for retirement. Large numbers of pilots in the industry are approaching the FAA's mandatory retirement age of 65. Our pilots and other employees are subject to rigorous certification standards, and our pilots and other crew members must adhere to flight time and rest requirements. Commencing in 2013, the minimum flight hour requirement to achieve a commercial pilot's license in the United States (an Air Transport Pilot's certificate) increased from 250 to 1,500 hours, thereby significantly increasing the time and cost commitment required to become licensed to fly commercial aircraft. Additionally, the number of military pilots being trained by the U.S. armed forces and available as commercial pilots upon their retirement from military service has been decreasing. These and other factors have contributed to a shortage of qualified, entry-level pilots and increased compensation costs, particularly for our regional subsidiaries and our other regional partners who are being required by market conditions to pay significantly increased wages and large signing bonuses to their pilots in an attempt to achieve desired staffing levels. The foregoing factors have also led to increased competition from large, mainline carriers attempting to meet their hiring needs. We believe that this industry-wide pilot shortage is becoming an increasing problem for airlines in the United States. Our regional partners have recently been unable to hire adequate numbers of pilots to meet their needs, resulting in a reduction in the number of flights offered, disruptions, increased costs of operations, financial difficulties and other adverse effects, and these circumstances may become more severe in the future and thereby cause a material adverse effect on our business.

Increases in insurance costs or reductions in insurance coverage may adversely impact our operations and financial results.

The terrorist attacks of September 11, 2001 led to a significant increase in insurance premiums and a decrease in the insurance coverage available to commercial air carriers. Accordingly, our insurance costs increased significantly, and our ability to continue to obtain insurance even at current prices remains uncertain. If we are unable to maintain adequate insurance coverage, our business could be materially and adversely affected. Additionally, severe disruptions in the domestic and global financial markets could adversely impact the claims paying ability of some insurers. Future downgrades in the ratings of enough insurers could adversely impact both the availability of appropriate insurance coverage and its cost. Because of competitive pressures in our industry, our ability to pass along additional insurance costs to passengers is limited. As a result, further increases in insurance costs or reductions in available insurance coverage could have an adverse impact on our financial results.

We may be a party to litigation in the normal course of business or otherwise, which could affect our financial position and liquidity.

From time to time, we are a party to or otherwise involved in legal proceedings, claims and government inspections or investigations and other legal matters, both inside and outside the United States, arising in the ordinary course of our business or otherwise. We are currently involved in various legal proceedings and claims that have not yet been fully resolved, and additional claims may arise in the future. Legal proceedings can be complex and take many months, or even years, to reach resolution, with the final outcome depending on a number of variables, some of which are not within our control. Litigation is subject to significant uncertainty and may be expensive, time-consuming, and disruptive to our operations. Although we will vigorously defend ourselves in such legal proceedings, their ultimate resolution and potential financial and other impacts on us are uncertain. For these and other reasons, we may choose to settle legal proceedings and claims, regardless of their actual merit. If a legal proceeding is resolved against us, it could result in significant compensatory damages, and in certain circumstances punitive or trebled damages, disgorgement of revenue or profits, remedial corporate measures or injunctive relief imposed on us. If our existing insurance does not cover the amount or types of damages awarded, or if other resolution or actions taken as a result of the legal proceeding were to restrain our ability to operate or market our services, our consolidated financial position, results of operations or cash flows could be materially adversely affected. In addition, legal proceedings, and any adverse resolution thereof, can result in adverse publicity and damage to our reputation, which could adversely impact our business. Additional information regarding certain legal matters in which we are involved can be found in Part I, Item 3. Legal Proceedings.

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Our ability to utilize our NOL Carryforwards may be limited.

Under the Internal Revenue Code of 1986, as amended (the Code), a corporation is generally allowed a deduction for NOLs carried over from prior taxable years (NOL Carryforwards). As of December 31, 2018, we had available NOL Carryforwards of approximately $10.2 billion for regular federal income tax purposes that will expire, if unused, beginning in 2022, and approximately $3.2 billion for state income tax purposes that will expire, if unused, between 2019 and 2038. Our NOL Carryforwards are subject to adjustment on audit by the Internal Revenue Service and the respective state taxing authorities.

A corporation's ability to deduct its federal NOL Carryforwards and to utilize certain other available tax attributes can be substantially constrained under the general annual limitation rules of Section 382 of the Code (Section 382) if it undergoes an "ownership change" as defined in Section 382 (generally where cumulative stock ownership changes among material stockholders exceed 50 percent during a rolling three-year period). We experienced an ownership change in connection with our emergence from the Chapter 11 Cases and US Airways Group experienced an ownership change in connection with the Merger. The general limitation rules for a debtor in a bankruptcy case are liberalized where the ownership change occurs upon emergence from bankruptcy. We elected to be covered by certain special rules for federal income tax purposes that permitted approximately $9.0 billion (with $8.4 billion of unlimited NOL still remaining at December 31, 2018) of our federal NOL Carryforwards to be utilized without regard to the annual limitation generally imposed by Section 382. If the special rules are determined not to apply, our ability to utilize such federal NOL Carryforwards may be subject to limitation. Substantially all of our remaining federal NOL Carryforwards attributable to US Airways Group and its subsidiaries are subject to limitation under Section 382 as a result of the Merger; however, our ability to utilize such NOL Carryforwards is not anticipated to be effectively constrained as a result of such limitation. Similar limitations may apply for state income tax purposes.

Notwithstanding the foregoing, an ownership change subsequent to our emergence from the Chapter 11 Cases may severely limit or effectively eliminate our ability to utilize our NOL Carryforwards and other tax attributes. To reduce the risk of a potential adverse effect on our ability to utilize our NOL Carryforwards, our Certificate of Incorporation contains transfer restrictions applicable to certain substantial stockholders. These restrictions may adversely affect the ability of certain holders of AAG common stock to dispose of or acquire shares of AAG common stock. Although the purpose of these transfer restrictions is to prevent an ownership change from occurring, no assurance can be given that an ownership change will not occur even with these restrictions in place.

Our ability to use our NOL Carryforwards also will depend on the amount of taxable income generated in future periods. The NOL Carryforwards may expire before we can generate sufficient taxable income to use them.

We have a significant amount of goodwill, which is assessed for impairment at least annually. In addition, we may never realize the full value of our intangible assets or long-lived assets, causing us to record material impairment charges.

Goodwill and indefinite-lived intangible assets are not amortized, but are assessed for impairment at least annually, or more frequently if conditions indicate that an impairment may have occurred. In accordance with applicable accounting standards, we first assess qualitative factors to determine whether it is necessary to perform a quantitative impairment test. In addition, we are required to assess certain of our other long-lived assets for impairment if conditions indicate that an impairment may have occurred.

Future impairment of goodwill or other long-lived assets could be recorded in results of operations as a result of changes in assumptions, estimates, or circumstances, some of which are beyond our control. There can be no assurance that a material impairment charge of goodwill or tangible or intangible assets will be avoided. The value of our aircraft could be impacted in future periods by changes in supply and demand for these aircraft. Such changes in supply and demand for certain aircraft types could result from grounding of aircraft by us or other airlines. An impairment charge could have a material adverse effect on our business, results of operations and financial condition.

The price of AAG common stock has recently been and may in the future be volatile.

The market price of AAG common stock has fluctuated in the past, and may fluctuate substantially in the future, due to a variety of factors, many of which are beyond our control, including:

- macro-economic conditions, including the price of fuel;
- changes in market values of airline companies as well as general market conditions;

- our operating and financial results failing to meet the expectations of securities analysts or investors;

- changes in financial estimates or recommendations by securities analysts;
- changes in our level of outstanding indebtedness and other obligations;
- changes in our credit rating;
- material announcements by us or our competitors;
- expectations regarding our capital deployment program, including any existing or potential future share repurchase programs and any future dividend payments that may be declared by our Board of Directors, or any determination to cease repurchasing stock or paying dividends;
- new regulatory pronouncements and changes in regulatory guidelines;
- general and industry-specific economic conditions;
- changes in our key personnel;
- distributions of shares of AAG common stock pursuant to the Plan, including distributions from the Disputed Claims Reserve established under the Plan;
- public sales of a substantial number of shares of AAG common stock or issuances of AAG common stock upon the exercise or conversion of restricted stock unit awards, stock appreciation rights, or other securities that may be issued from time to time;
- increases or decreases in reported holdings by insiders or other significant stockholders; and
- fluctuations in trading volume.

We cannot guarantee that we will continue to repurchase our common stock or pay dividends on our common stock or that our capital deployment program will enhance long-term stockholder value. Our capital deployment program could increase the volatility of the price of our common stock and diminish our cash reserves.

Since July 2014, as part of our capital deployment program, our Board of Directors has approved seven share repurchase programs aggregating $13.0 billion of authority. As of December 31, 2018, there was $1.7 billion remaining authority to repurchase shares under our share repurchase programs. Share repurchases under our repurchase programs may be made through a variety of methods, which may include open market purchases, privately negotiated transactions, block trades or accelerated share repurchase transactions. These share repurchase programs do not obligate us to acquire any specific number of shares or to repurchase any specific number of shares for any fixed period, and may be suspended at any time at our discretion and without prior notice. The timing and amount of repurchases, if any, will be subject to market and economic conditions, applicable legal requirements and other relevant factors. Our repurchase of AAG common stock may be limited, suspended or discontinued at any time at our discretion and without prior notice.

Our Board of Directors commenced declaring quarterly cash dividends in July 2014 as part of our capital deployment program. However, any future dividends that may be declared and paid from time to time will be subject to market and economic conditions, applicable legal requirements and other relevant factors. We are not obligated to continue a dividend for any fixed period, and the payment of dividends may be suspended or discontinued at any time at our discretion and without prior notice. We will continue to retain future earnings to develop our business, as opportunities arise, and evaluate on a quarterly basis the amount and timing of future dividends based on our operating results, financial condition, capital requirements and general business conditions. The amount and timing of any future dividends may vary, and the payment of any dividend does not assure that we will pay dividends in the future.

In addition, any future repurchases of AAG common stock or payment of dividends, or any determination to cease repurchasing stock or paying dividends, could affect our stock price and increase its volatility. The existence of a share repurchase program and any future dividends could cause our stock price to be higher than it would otherwise be and could potentially reduce the market liquidity for our stock. Additionally, any future repurchases of AAG common stock or payment of dividends will diminish our cash reserves, which may impact our ability to finance future growth and to pursue possible future strategic opportunities and acquisitions. Further, our repurchase of AAG common stock may fluctuate such that our cash flow may be insufficient to fully cover our share repurchases. Although our share repurchase programs are intended to enhance long-term stockholder value, there is no assurance that it will do so because the market price of our common stock may decline below the levels at which we repurchased shares of stock and short-term stock price fluctuations could reduce the program’s effectiveness.

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Certain provisions of AAG's Certificate of Incorporation and Bylaws make it difficult for stockholders to change the composition of our Board of Directors and may discourage takeover attempts that some of our stockholders might consider beneficial.

Certain provisions of our Certificate of Incorporation and Bylaws, as currently in effect, may have the effect of delaying or preventing changes in control if our Board of Directors determines that such changes in control are not in our best interest and the best interest of our stockholders. These provisions include, among other things, the following:

- advance notice procedures for stockholder proposals to be considered at stockholders' meetings;
- the ability of our Board of Directors to fill vacancies on the board;
- a prohibition against stockholders taking action by written consent;
- stockholders are restricted from calling a special meeting unless they hold at least 20% of our outstanding shares and follow the procedures provided for in the amended Bylaws;
- a requirement that holders of at least 80% of the voting power of the shares entitled to vote in the election of directors approve any amendment of our Bylaws submitted to stockholders for approval; and
- super-majority voting requirements to modify or amend specified provisions of our Certificate of Incorporation.

These provisions are not intended to prevent a takeover, but are intended to protect and maximize the value of the interests of our stockholders. While these provisions have the effect of encouraging persons seeking to acquire control of our company to negotiate with our Board of Directors, they could enable our Board of Directors to prevent a transaction that some, or a majority, of our stockholders might believe to be in their best interest and, in that case, may prevent or discourage attempts to remove and replace incumbent directors. In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law, which prohibits business combinations with interested stockholders. Interested stockholders do not include stockholders whose acquisition of our securities is approved by the Board of Directors prior to the investment under Section 203.

AAG's Certificate of Incorporation and Bylaws include provisions that limit voting and acquisition and disposition of our equity interests.

Our Certificate of Incorporation and Bylaws include provisions that limit voting and ownership and disposition of our equity interests, as described in Part II, Item 5. Market for American Airlines Group's Common Stock, Related Stockholder Matters and Issuer Purchases of Equity Securities - "Ownership Restrictions." These restrictions may adversely affect the ability of certain holders of AAG common stock and our other equity interests to vote such interests and adversely affect the ability of persons to acquire shares of AAG common stock and our other equity interests.

ITEM 1B. UNRESOLVED STAFF COMMENTS

We had no unresolved Securities and Exchange Commission staff comments that were issued 180 days or more preceding December 31, 2018.

ITEM 2. PROPERTIES

Flight Equipment and Fleet Renewal

As of December 31, 2018, American operated a mainline fleet of 956 aircraft. In 2018, we continued our extensive fleet renewal program, which has provided us with the youngest fleet of the major U.S. network carriers. During 2018, American took delivery of 23 mainline aircraft and retired 15 mainline aircraft. We are supported by our wholly-owned and third-party regional carriers that fly under capacity purchase agreements operating as American Eagle. As of December 31, 2018, American Eagle operated 595 regional aircraft. During 2018, we reduced our regional fleet by a net of two aircraft, including the addition of 60 regional aircraft and retirement of 62 regional aircraft.

Mainline

As of December 31, 2018, American's mainline fleet consisted of the following aircraft:

	Average Seating Capacity	Average Age (Years)	Owned	Leased	Total
Airbus A319	128	14.7	21	105	126
Airbus A320	150	17.7	10	38	48
Airbus A321	178	6.4	165	54	219
Airbus A330-200	247	7.0	15	—	15
Airbus A330-300	291	18.4	4	5	9
Boeing 737-800	161	9.1	132	172	304
Boeing 737-8 MAX	172	0.6	11	9	20
Boeing 757-200	180	19.1	31	3	34
Boeing 767-300ER	209	20.1	24	—	24
Boeing 777-200ER	273	18.0	44	3	47
Boeing 777-300ER	304	4.8	18	2	20
Boeing 787-8	226	3.1	20	—	20
Boeing 787-9	285	1.3	15	5	20
Embraer 190	99	11.1	20	—	20
McDonnell Douglas MD-80	140	20.6	3	27	30
Total		10.6	533	423	956

Regional

As of December 31, 2018, the fleet of our wholly-owned and third-party regional carriers operating as American Eagle consisted of the following aircraft:

	Average Seating Capacity	Owned	Leased	Owned or Leased by Third Party Regional Carrier	Total	Operating Regional Carrier	Number of Aircraft Operated [1]
Bombardier CRJ 200	50	12	23	—	35	PSA	35
Bombardier CRJ 700	68	54	7	58	119	SkyWest	50
						PSA	46
						Envoy	15
						ExpressJet [2]	8
						Total	119
Bombardier CRJ 900	78	54	—	64	118	Mesa	64
						PSA	54
						Total	118
Embraer E175	76	69	—	85	154	Republic	85
						Envoy	49
						Compass	20
						Total	154
Embraer ERJ 140	44	51	—	—	51	Envoy	51
Embraer ERJ 145	50	118	—	—	118	Envoy	62
						Piedmont	56
						Total	118
Total		358	30	207	595		595

(1) Excluded from the total operating aircraft count above are eight owned Embraer ERJ 140s that are being held in temporary storage.

(2) ExpressJet operated regional jet aircraft for us in 2018; however, this capacity purchase arrangement ended in January 2019.

See Note 12 to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 10 to American's Consolidated Financial Statements in Part II, Item 8B for additional information on our capacity purchase agreements with third-party regional carriers.

Aircraft and Engine Purchase Commitments

As of December 31, 2018, we had definitive purchase agreements with Airbus, Boeing, Embraer and Bombardier for the acquisition of the following mainline and regional aircraft:

	2019	2020	2021	2022	2023	2024 and Thereafter	Total
Airbus							
A320neo Family	17	15	18	20	8	22	100
Boeing							
737 MAX Family	20	10	10	—	—	40	80
787 Family	2	12	10	—	6	19	49
Embraer							
E175	20	15	—	—	—	—	35
Bombardier							
CRJ900	11	4	—	—	—	—	15
Total	70	56	38	20	14	81	279

We also have agreements for 35 spare engines to be delivered in 2019 and beyond.

We have financing commitments for all aircraft currently on order and scheduled to be delivered through June 2019. We do not have financing commitments for the following aircraft currently on order and scheduled to be delivered in the second half of 2019: seven Embraer E175 aircraft, five Airbus A320neo Family aircraft and three Boeing 737 MAX Family aircraft. We do not have financing commitments in place for remaining aircraft currently on order and scheduled to be delivered in 2020 and beyond, with the exception of four Bombardier CRJ900 aircraft. See Part I, Item 1A. Risk Factors –"We will need to obtain sufficient financing or other capital to operate successfully" for additional discussion.

See Note 12 to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 10 to American's Consolidated Financial Statements in Part II, Item 8B for additional information on aircraft and engine acquisition commitments.

Ground Properties

At each airport where we conduct flight operations, we have agreements, generally with a governmental unit or authority, for the use of passenger, operations and baggage handling space as well as runways and taxiways. These agreements, particularly in the U.S., often contain provisions for periodic adjustments to rates and charges applicable under such agreements. These rates and charges also vary with our level of operations and the operations of the airport. Additionally, at our hub locations and in certain other cities we serve, we lease administrative offices, catering, cargo, training, maintenance and other facilities.

We own our corporate headquarters buildings in Fort Worth, Texas. We lease or have built on leased property our training facilities in Fort Worth, Texas, our principal overhaul and maintenance base in Tulsa, Oklahoma, our regional reservation offices, and administrative offices throughout the U.S. and abroad. Construction continues on a new, five-building headquarters on the corporate campus in Fort Worth, Texas, which is scheduled for completion and move-in in phases over the second half of 2019.

ITEM 3. LEGAL PROCEEDINGS

Chapter 11 Cases. On November 29, 2011, AMR, American, and certain of AMR's other direct and indirect domestic subsidiaries (the Debtors) filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for the Southern District of New York (the Bankruptcy Court). On October 21, 2013, the Bankruptcy Court entered an order approving and confirming the Debtors' fourth amended joint plan of reorganization (as amended, the Plan). On the Effective Date, December 9, 2013, the Debtors consummated their reorganization pursuant to the Plan and completed the Merger.

Pursuant to rulings of the Bankruptcy Court, the Plan established the Disputed Claims Reserve to hold shares of AAG common stock reserved for issuance to disputed claimholders at the Effective Date that ultimately become holders of allowed claims. The shares of AAG common stock issued to the Disputed Claims Reserve were originally issued on December 13, 2013 and have at all times since been included in the number of shares issued and outstanding as reported from time to time in our quarterly and annual reports, including for purposes of calculating earnings per share. As disputed claims are resolved, the claimants will receive distributions of shares from the Disputed Claims Reserve. However, we are not required to distribute additional shares above the limits contemplated by the Plan, even if the shares remaining for distribution in the Disputed Claims Reserve are not sufficient to fully pay any additional allowed unsecured claims. To the extent that any of the reserved shares remain undistributed upon resolution of all remaining disputed claims, such shares will not be returned to us but rather will be distributed to former AMR stockholders and former convertible noteholders treated as stockholders under the Plan. On February 12, 2019, in accordance with the approval granted by the Bankruptcy Court on December 6, 2018, an aggregate of approximately 17.3 million shares of AAG common stock were distributed from the Disputed Claims Reserve to former AMR shareholders and convertible noteholders. After giving effect to this distribution, the Disputed Claims Reserve holds approximately 7.2 million shares of AAG common stock.

Private Party Antitrust Action Related to Passenger Capacity. We, along with Delta Air Lines, Inc., Southwest Airlines Co., United Airlines, Inc. and, in the case of litigation filed in Canada, Air Canada, have been named as defendants in approximately 100 putative class action lawsuits alleging unlawful agreements with respect to air passenger capacity. The U.S. lawsuits have been consolidated in the Federal District Court for the District of Columbia (the DC Court). On June 15, 2018, we reached a preliminary settlement agreement with the plaintiffs in the amount of $45 million that, once approved, will resolve all claims in the U.S. lawsuits. That settlement received preliminary approval from the DC Court on June 18, 2018.

Private Party Antitrust Action Related to the Merger. On August 6, 2013, a lawsuit captioned Carolyn Fjord, et al., v. AMR Corporation, et al., was filed in the United States Bankruptcy Court for the Southern District of New York. The complaint named as defendants US Airways Group, US Airways, AMR and American, alleged that the effect of the Merger may be to create a monopoly in violation of Section 7 of the Clayton Antitrust Act, and sought injunctive relief and/or divestiture. On November 27, 2013, the Bankruptcy Court denied plaintiffs' motion to preliminarily enjoin the Merger. On August 29, 2018, the Court denied in part defendants' motion for summary judgment, and fully denied plaintiffs' cross-motion for summary judgment. A bench trial is presently scheduled for March 2019. We believe this lawsuit is without merit and intend to vigorously defend against the allegations.

DOJ Investigation Related to the United States Postal Service. In April 2015, the Department of Justice (DOJ) informed us of an inquiry regarding American's 2009 and 2011 contracts with the United States Postal Service for the international transportation of mail by air. In October 2015, we received a Civil Investigative Demand from the DOJ seeking certain information relating to these contracts and the DOJ has also sought information concerning certain of the airlines that transport mail on a codeshare basis. The DOJ has indicated it is investigating potential violations of the False Claims Act or other statutes. We are cooperating fully with the DOJ with regard to its investigation.

General. In addition to the specifically identified legal proceedings, we and our subsidiaries are also engaged in other legal proceedings from time to time. Legal proceedings can be complex and take many months, or even years, to reach resolution, with the final outcome depending on a number of variables, some of which are not within our control. Therefore, although we will vigorously defend ourselves in each of the actions described above and such other legal proceedings, their ultimate resolution and potential financial and other impacts on us are uncertain but could be material. See Part I, Item 1A. Risk Factors –"We may be a party to litigation in the normal course of business or

otherwise, which could affect our financial position and liquidity" for additional discussion.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

PART II

ITEM 5. MARKET FOR AMERICAN AIRLINES GROUP'S COMMON STOCK, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Stock Exchange Listing

Our common stock is listed on the NASDAQ Global Select Market (NASDAQ) under the symbol "AAL." There is no trading market for the common stock of American, which is a wholly-owned subsidiary of AAG.

As of February 20, 2019, the closing price of our common stock was $35.06 and there were 13,685 holders of record. However, because many of the shares of our common stock are held by brokers and other institutions on behalf of stockholders, we believe there are substantially more beneficial holders of our common stock than record holders.

Information on securities authorized for issuance under our equity compensation plans will be set forth in our Proxy Statement for the 2019 Annual Meeting of Stockholders of American Airlines Group Inc. (the Proxy Statement) under the caption "Equity Compensation Plan Information" and is incorporated by reference into this Annual Report on Form 10-K.

Dividends of Common Stock

In January 2019, we announced that our Board of Directors declared a $0.10 per share cash dividend for stockholders of record on February 6, 2019, and payable on February 20, 2019.

The total cash payment for dividends during the years ended December 31, 2018 and 2017 was $186 million and $198 million, respectively. Any future dividends that may be declared and paid from time to time will be subject to market and economic conditions, applicable legal requirements and other relevant factors. We are not obligated to continue a dividend for any fixed period, and the payment of dividends may be suspended or discontinued at any time at our discretion and without prior notice.

Stock Performance Graph

The following stock performance graph and related information shall not be deemed "soliciting material" or "filed" with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filings under the Securities Act of 1933 or the Exchange Act, each as amended, except to the extent that we specifically incorporate it by reference into such filing.

The following stock performance graph compares the cumulative total stockholder returns during the period from December 31, 2013 to December 31, 2018 of our common stock to the Standard and Poor's (S&P) 500 Stock Index and the New York Stock Exchange (NYSE) ARCA Airline Index. The comparison assumes $100 was invested on December 31, 2013 in our common stock and in each of the foregoing indices and assumes that all dividends were reinvested. The stock performance shown on the following graph represents historical stock performance and is not necessarily indicative of future stock price performance.

	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018
American Airlines Group Inc. (AAL)	$ 100	$ 213	$ 170	$ 189	$ 213	$ 133
NYSE ARCA Airline Index (XAL)	100	149	125	159	167	130
S&P 500 Index (GSPC)	100	111	111	121	145	136

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

In 2018, we repurchased 16.6 million shares of AAG common stock for $800 million at a weighted average cost per share of $48.15. In 2017, we repurchased 33.9 million shares of AAG common stock for $1.6 billion at a weighted average cost per share of $45.68. Since the inception of our share repurchase programs in July 2014 through December 31, 2018, we have repurchased 278.9 million shares of AAG common stock for $11.3 billion at a weighted average cost per share of $40.69.

We did not make any purchases of shares of AAG common stock during the three months ended December 31, 2018. Share repurchases under our repurchase programs may be made through a variety of methods, which may include open market purchases, privately negotiated transactions, block trades or accelerated share repurchase transactions. Any such repurchases that may be made from time to time will be subject to market and economic conditions, applicable legal requirements and other relevant factors. We are not obligated to repurchase any specific number of shares and our repurchase of AAG common stock may be limited, suspended or discontinued at any time at our discretion and without prior notice.

See Part I, Item 1A. Risk Factors – “We cannot guarantee that we will continue to repurchase our common stock or pay dividends on our common stock or that our capital deployment program will enhance long-term stockholder value. Our capital deployment program could increase the volatility of the price of our common stock and diminish our cash reserves.”

Ownership Restrictions

AAG’s Certificate of Incorporation and Bylaws provide that, consistent with the requirements of Subtitle VII of Title 49 of the United States Code, as amended (the Aviation Act), any persons or entities who are not a “citizen of the United States” (as defined under the Aviation Act and administrative interpretations issued by the DOT, its predecessors and successors, from time to time), including any agent, trustee or representative of such persons or entities (a non-citizen), shall not, in the aggregate, own (beneficially or of record) and/or control more than (a) 24.9% of the aggregate votes of all of our outstanding equity securities or (b) 49.0% of our outstanding equity securities. Our Certificate of Incorporation and Bylaws further specify that it is the duty of each stockholder who is a non-citizen to register his, her or its equity securities on our foreign stock record and provide for remedies applicable to stockholders that exceed the voting and ownership caps described above.

In addition, to reduce the risk of a potential adverse effect on our ability to use our NOL Carryforwards and certain other tax attributes for federal income tax purposes, our Certificate of Incorporation contains certain restrictions on the acquisition and disposition of our common stock by substantial stockholders (generally holders of more than 4.75%). See Part I, Item 1A. Risk Factors – "AAG's Certificate of Incorporation and Bylaws include provisions that limit voting and acquisition and disposition of our equity interests." Also see AAG's Certification of Incorporation and Bylaws, which are filed as Exhibits 3.1, 3.2 and 3.3 hereto, for the full text of the foregoing restrictions.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

We adopted three new accounting standards as of January 1, 2018: Accounting Standards Update (ASU) 2016-02: Leases (Topic 842) (the New Lease Standard), ASU 2014-09: Revenue from Contracts with Customers (the New Revenue Standard) and ASU 2017-07: Compensation - Retirement Benefits (the New Retirement Standard). The 2017 and 2016 financial information presented within Item 6. Selected Consolidated Financial Data has been recast to reflect the impact of the adoption of the New Revenue Standard and the New Retirement Standard. The New Lease Standard did not require the recast of prior periods. See Note 1(b) to AAG's and American's Consolidated Financial Statements in Part II, Items 8A and 8B, respectively, for further information on the impacts of these new accounting standards.

Selected Consolidated Financial Data of AAG

The selected consolidated financial data presented below under the captions "Consolidated Statements of Operations data" and "Consolidated Balance Sheet data" for the years ended December 31, 2018, 2017, 2016, 2015 and 2014 are derived from AAG's audited consolidated financial statements.

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(In millions, except share and per share data)				
Consolidated Statements of Operations data:					
Total operating revenues	$44,541	$42,622	$40,142	$40,990	$42,650
Total operating expenses	41,885	38,391	35,082	34,786	38,401
Operating income	2,656	4,231	5,060	6,204	4,249
Net income	1,412	1,282	2,584	7,610	2,882
Earnings per common share:					
Basic	$3.04	$2.62	$4.68	$11.39	$4.02
Diluted	3.03	2.61	4.65	11.07	3.93
Shares used for computation (in thousands):					
Basic	464,236	489,164	552,308	668,393	717,456
Diluted	465,660	491,692	556,099	687,355	734,016
Cash dividends declared per common share	$0.40	$0.40	$0.40	$0.40	$0.20
Consolidated Balance Sheet data (at end of period):					
Total assets	$60,580	$52,785	$53,610	$48,415	$43,225
Debt and finance leases	24,473	25,065	24,344	20,561	17,720
Pension and postretirement obligations [1]	6,937	7,596	7,946	7,566	7,689
Operating lease liabilities	9,556	—	—	—	—
Stockholders' equity (deficit)	(169)	(780)	(286)	5,635	2,021

(1) Substantially all defined benefit pension plans were frozen effective November 1, 2012. See Note 10 to AAG's Consolidated Financial Statements in Part II, Item 8A for further information on pension and postretirement benefits.

Reconciliation of GAAP to Non-GAAP Financial Measures

We sometimes use financial measures that are derived from the consolidated financial statements but that are not presented in accordance with GAAP to understand and evaluate our current operating performance and to allow for period-to-period comparisons. We believe these non-GAAP financial measures may also provide useful information to investors and others. These non-GAAP measures may not be comparable to similarly titled non-GAAP measures of other companies, and should be considered in addition to, and not as a substitute for or superior to, any measure of performance, cash flow or liquidity prepared in accordance with GAAP. We are providing a reconciliation of reported non-GAAP financial measures to their comparable financial measures on a GAAP basis.

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The following table presents the components of our total special items and the reconciliation of pre-tax income and net income (GAAP measures) to pre-tax income excluding special items and net income excluding special items (non-GAAP measures). Management uses pre-tax income excluding special items and net income excluding special items to evaluate our current operating performance and to allow for period-to-period comparisons. As special items may vary from period-to-period in nature and amount, the adjustment to exclude special items allows management an additional tool to understand our core operating performance.

	Year Ended December 31,		
	2018	2017	2016
	(In millions)		
Components of Total Special Items, Net: [1]			
Fleet restructuring expenses [2]	$422	$232	$177
Merger integration expenses [3]	268	273	514
Severance expenses [4]	58	—	—
Litigation settlement [5]	45	—	—
Intangible asset impairment [6]	26	—	—
Labor contract expenses	13	46	—
Mark-to-market adjustments on bankruptcy obligations, net [7]	(76)	27	25
Employee 2017 Tax Act bonus expense [8]	—	123	—
Other operating charges (credits), net	31	11	(7)
Mainline operating special items, net	787	712	709
Regional operating special items, net	6	22	14
Operating special items, net	793	734	723
Mark-to-market adjustments on equity investments, net [9]	104	—	—
Debt refinancing and extinguishment charges	13	22	49
Other nonoperating credits, net	(4)	—	—
Nonoperating special items, net	113	22	49
Pre-tax special items, net	906	756	772
Income tax special items [10]	18	—	—
Impact of the 2017 Tax Act [11]	—	823	—
Income tax special items, net	18	823	—
Total special items, net	$924	$1,579	$772
Reconciliation of Pre-Tax Income Excluding Special Items:			
Pre-tax income – GAAP	$1,884	$3,395	$4,152
Adjusted for: Pre-tax special items, net	906	756	772
Pre-tax income excluding special items	$2,790	$4,151	$4,924
Reconciliation of Net Income Excluding Special Items:			
Net income – GAAP	$1,412	$1,282	$2,584
Adjusted for: Total special items, net	924	1,579	772
Adjusted for: Net tax effect of special items	(219)	(269)	(275)
Net income excluding special items	$2,117	$2,592	$3,081

(1) See Note 2 to AAG's Consolidated Financial Statements in Part II, Item 8A for further information on special items.

(2) Fleet restructuring expenses principally included accelerated depreciation and rent expense for aircraft and related equipment grounded or expected to be grounded earlier than planned.

(3) Merger integration expenses included costs associated with integration projects, principally our flight attendant, human resources and payroll, and technical operations systems.

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(4) Severance expenses primarily included costs associated with reductions of management and support staff team members.

(5) Settlement of a private party antitrust lawsuit. See Part I, Item 3. Legal Proceedings - “Private Party Antitrust Action Related to Passenger Capacity” for further discussion.

(6) Intangible asset impairment includes a non-cash charge to write-off our Brazil route authority as a result of the U.S.-Brazil open skies agreement.

(7) Bankruptcy obligations that will be settled in shares of our common stock are marked-to-market based on our stock price.

(8) Employee bonus expense included costs related to the $1,000 cash bonus and associated payroll taxes granted to mainline employees as of December 31, 2017 in recognition of H.R. 1, the 2017 Tax Cuts and Jobs Act (the 2017 Tax Act).

(9) Mark-to-market adjustments on equity investments relate to net unrealized losses primarily associated with our equity investments in China Southern Airlines and Mesa Air Group, Inc.

(10) Income tax special items for 2018 included an $18 million charge related to an international income tax matter.

(11) Impact of the 2017 Tax Act includes an $823 million non-cash charge to income tax expense to reflect the impact of lower corporate income tax rates on our deferred tax asset and liabilities resulting from the 2017 Tax Act, which reduced the federal corporate income tax rate from 35% to 21%.

Additionally, the table below presents the reconciliation of total operating costs (GAAP measure) to total operating costs excluding special items and fuel (non-GAAP measure). Management uses total operating costs excluding special items and fuel to evaluate our current operating performance and for period-to-period comparisons. The price of fuel, over which we have no control, impacts the comparability of period-to-period financial performance. The adjustment to exclude aircraft fuel and special items allows management an additional tool to understand and analyze our non-fuel costs and core operating performance. Amounts may not recalculate due to rounding.

	Year Ended December 31,		
	2018	2017	2016
Reconciliation of Total Operating Costs per Available Seat Mile (CASM) Excluding Special Items and Fuel:			
(In millions)			
Total operating expenses - GAAP	$41,885	$38,391	$35,082
Special items [1]:			
Special items, net	(787)	(712)	(709)
Regional operating special items, net	(6)	(22)	(14)
Fuel:			
Aircraft fuel and related taxes - mainline	(8,053)	(6,128)	(5,071)
Aircraft fuel and related taxes - regional	(1,843)	(1,382)	(1,109)
Total operating expenses, excluding special items and fuel	$31,196	$30,147	$28,179
(In millions)			
Total Available Seat Miles (ASM)	282,054	276,493	273,410
(In cents)			
Total operating CASM	14.85	13.88	12.83
Special items per ASM [1]:			
Special items, net	(0.28)	(0.26)	(0.26)
Regional operating special items, net	—	(0.01)	(0.01)
Fuel per ASM:			
Aircraft fuel and related taxes - mainline	(2.86)	(2.22)	(1.85)
Aircraft fuel and related taxes - regional	(0.65)	(0.50)	(0.41)
Total CASM, excluding special items and fuel	11.06	10.90	10.31

(1) See Note 2 to AAG's Consolidated Financial Statements in Part II, Item 8A for further information on special items.

Selected Consolidated Financial Data of American

The selected consolidated financial data presented below under the captions “Consolidated Statements of Operations data” and “Consolidated Balance Sheet data” for the years ended December 31, 2018, 2017, 2016, 2015 and 2014 are derived from American’s audited consolidated financial statements. On December 30, 2015, US Airways merged with and into American, with American as the surviving corporation. For financial reporting purposes, this transaction constituted a transfer of assets between entities under common control and is reflected in American’s consolidated financial statements as though the transaction had occurred on December 9, 2013, when a subsidiary of AMR merged with and into US Airways Group, which represents the earliest date that American and US Airways were under common control.

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(In millions)				
Consolidated Statements of Operations data:					
Total operating revenues	$44,530	$42,610	$40,125	$40,938	$42,676
Total operating expenses	41,807	38,405	35,045	34,749	38,410
Operating income	2,723	4,205	5,080	6,189	4,266
Net income	1,658	1,285	2,689	8,120	2,948
Consolidated Balance Sheet data (at end of period):					
Total assets	$70,878	$61,401	$60,428	$50,439	$42,787
Debt and finance leases	23,197	23,294	22,577	18,826	16,482
Pension and postretirement obligations [1]	6,893	7,550	7,904	7,526	7,649
Operating lease liabilities	9,496	—	—	—	—
Stockholder’s equity	11,770	9,888	8,578	9,698	1,406

(1) Substantially all defined benefit pension plans were frozen effective November 1, 2012. See Note 8 to American's Consolidated Financial Statements in Part II, Item 8B for further information on pension and postretirement benefits.

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

Background

Together with our wholly-owned regional airline subsidiaries and third-party regional carriers operating as American Eagle, we operate an average of nearly 6,700 flights per day to nearly 350 destinations in more than 50 countries through hubs and gateways in Charlotte, Chicago, Dallas/Fort Worth, London Heathrow, Los Angeles, Miami, New York, Philadelphia, Phoenix and Washington, D.C. In 2018, approximately 204 million passengers boarded our flights.

2018 Financial Overview

Fuel Costs and the U.S. Airline Industry

While 2018 marked another profitable year for the U.S. airline industry, higher fuel costs significantly impacted industry results. With respect to fuel costs, the price of Brent crude oil per barrel, which jet fuel prices tend to follow, was on average approximately 33% higher in 2018 as compared to 2017. The average daily spot price for Brent crude oil during 2018 was $72 per barrel as compared to an average daily spot price of $54 per barrel during 2017. On a daily basis, Brent crude oil prices fluctuated during 2018 between a high of $86 per barrel to a low of $50 per barrel, and closed the year on December 31, 2018 at $54 per barrel. Brent crude oil prices were higher in the 2018 period due principally to reductions of global inventories driven by strong demand and continued production restraint led primarily by the Organization of Petroleum Exporting Countries (OPEC). U.S. sanctions against Iran, coupled with declining output from Venezuela further limited supply. Concerns about slowing global growth and lower demand for oil surfaced in the fourth quarter of 2018 causing Brent crude oil prices to drop. With respect to revenue, the network U.S. airlines reported positive unit revenue growth in 2018 driven by strong demand and higher yields as airlines attempted to pass along the cost of rising fuel prices. The positive unit revenue growth in 2018 was led by international markets, primarily in the Atlantic market, with the domestic market also contributing to the growth.

See Part I, Item 1A. Risk Factors – "Downturns in economic conditions could adversely affect our business," "Our business is very dependent on the price and availability of aircraft fuel. Continued periods of high volatility in fuel costs, increased fuel prices or significant disruptions in the supply of aircraft fuel could have a significant negative impact on our operating results and liquidity" and "Our business has been and will continue to be affected by many changing economic and other conditions beyond our control, including global events that affect travel behavior, and our results of operations could be volatile and fluctuate due to seasonality."

AAG's 2018 Results

The selected financial data presented below is derived from AAG's audited consolidated financial statements included in Part II, Item 8A of this report and should be read in conjunction with those financial statements and the related notes thereto.

We adopted three new accounting standards as of January 1, 2018: the New Lease Standard, the New Revenue Standard and the New Retirement Standard. The 2017 and 2016 financial information presented within Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations has been recast to reflect the impact of the adoption of the New Revenue Standard and the New Retirement Standard. The New Lease Standard did not require the recast of prior periods. See Note 1(b) to AAG's and American's Consolidated Financial Statements in Part II, Items 8A and 8B, respectively, for further information on the impacts of these new accounting standards.

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2018	2017		
	(In millions, except percentage changes)			
Passenger revenue	$40,676	$39,131	$ 1,545	3.9
Cargo revenue	1,013	890	123	13.8
Other operating revenue	2,852	2,601	251	9.7
Total operating revenues	44,541	42,622	1,919	4.5
Mainline and regional aircraft fuel and related taxes	9,896	7,510	2,386	31.8
Salaries, wages and benefits	12,251	11,954	297	2.5
Total operating expenses	41,885	38,391	3,494	9.1
Operating income	2,656	4,231	(1,575)	(37.2)
Pre-tax income	1,884	3,395	(1,511)	(44.5)
Income tax provision	472	2,113	(1,641)	(77.7)
Net income	1,412	1,282	130	10.2
Pre-tax income – GAAP	$1,884	$3,395	$ (1,511)	(44.5)
Adjusted for: Pre-tax special items, net [1]	906	756	150	19.8
Pre-tax income excluding special items	$2,790	$4,151	$ (1,361)	(32.8)

[1] See Part II, Item 6. Selected Consolidated Financial Data – "Reconciliation of GAAP to Non-GAAP Financial Measures" and Note 2 to AAG's Consolidated Financial Statements in Part II, Item 8A for details on the components of special items.

Pre-Tax Income and Net Income

Pre-tax income and net income were $1.9 billion and $1.4 billion in 2018, respectively. This compares to 2017 pre-tax income and net income of $3.4 billion and $1.3 billion, respectively. Excluding the effects of pre-tax net special items, pre-tax income was $2.8 billion and $4.2 billion in 2018 and 2017, respectively. The year-over-year declines in our pre-tax income on both a GAAP basis and excluding pre-tax net special items were principally driven by a 29.0% increase in the average price per gallon of fuel. This increase was offset in part by higher revenues driven by strong demand.

Revenue

In 2018, we reported total operating revenues of $44.5 billion, an increase of $1.9 billion, or 4.5%, as compared to 2017. Passenger revenues were $40.7 billion, an increase of $1.5 billion, or 3.9%, as compared to 2017. The increase in passenger revenues was due to a 2.1% increase in revenue passenger miles (RPMs) and a 1.8% increase in yields driven by strong demand. Domestic yields increased 0.9% and international yields rose 4.2%, led by a 5.3% increase in yield in the Atlantic market.

In 2018, cargo revenue was $1.0 billion, an increase of $123 million, or 13.8%, as compared to 2017, primarily driven by increases in domestic and international freight yields and international freight volume. Other revenue, driven by higher loyalty revenue, increased $251 million, or 9.7%, in 2018 as compared to 2017.

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Our total revenue per available seat mile (TRASM) was 15.79 cents in 2018, a 2.4% increase as compared to 15.42 cents in 2017.

Fuel

Our mainline and regional fuel expense totaled $9.9 billion in 2018, which was $2.4 billion, or 31.8%, higher as compared to 2017. This increase was driven primarily by a 29.0% increase in the average price per gallon of fuel to $2.23 in 2018 from $1.73 in 2017.

As of December 31, 2018, we did not have any fuel hedging contracts outstanding to hedge our fuel consumption. As such, and assuming we do not enter into any future transactions to hedge our fuel consumption, we will continue to be fully exposed to fluctuations in fuel prices. Our current policy is not to enter into transactions to hedge our fuel consumption, although we review that policy from time to time based on market conditions and other factors.

Other Costs

We remain committed to actively managing our cost structure, which we believe is necessary in an industry whose economic prospects are heavily dependent upon two variables we cannot control: the health of the economy and the price of fuel.

Our 2018 total cost per available seat mile (CASM) was 14.85 cents, an increase of 6.9%, from 13.88 cents in 2017. The increase was primarily driven by an increase in fuel costs as described above.

Our 2018 CASM excluding special items and fuel was 11.06 cents, an increase of 1.4%, from 10.90 cents in 2017. The increase was primarily driven by higher salaries, wages and benefits.

For a reconciliation of CASM excluding special items and fuel, see Part II, Item 6. Selected Consolidated Financial Data – “Reconciliation of GAAP to Non-GAAP Financial Measures.”

Liquidity

As of December 31, 2018, we had approximately $7.6 billion in total available liquidity, consisting of $4.8 billion in unrestricted cash and short-term investments and $2.8 billion in undrawn revolving credit facilities. We also had restricted cash and short-term investments of $154 million.

During 2018, we completed the following financing transactions:

- Refinanced a $1.8 billion term loan facility at a lower interest rate and extended the maturity from 2020 to 2025;
- Raised $1.9 billion in proceeds from aircraft and pre-delivery purchase deposit debt financing, of which approximately $513 million was used to repay existing indebtedness;
- Raised approximately $1.1 billion in proceeds from aircraft sale-leaseback transactions;
- Raised an incremental $500 million on a term loan facility; and
- Increased our revolving credit facility commitments by $343 million, extended their maturities from 2022 to 2023 and improved their undrawn economics.

See Note 5 to AAG’s Consolidated Financial Statements in Part II, Item 8A and Note 3 to American’s Consolidated Financial Statements in Part II, Item 8B for additional information on our debt obligations.

Additionally, we returned $986 million to our stockholders in 2018, consisting of $186 million in dividend payments and the repurchase of $800 million of AAG common stock, or 16.6 million shares at a weighted average cost per share of $48.15.

AAG's Results of Operations

Operating Statistics

The table below sets forth selected operating data for the years ended December 31, 2018, 2017 and 2016.

	Year Ended December 31,			Increase (Decrease)	Increase (Decrease)
	2018	2017	2016	2018-2017	2017-2016
Revenue passenger miles (millions) [a]	231,160	226,346	223,477	2.1%	1.3%
Available seat miles (millions) [b]	282,054	276,493	273,410	2.0%	1.1%
Passenger load factor (percent) [c]	82.0	81.9	81.7	0.1pts	0.2pts
Yield (cents) [d]	17.60	17.29	16.58	1.8%	4.3%
Passenger revenue per available seat mile (cents) [e]	14.42	14.15	13.55	1.9%	4.5%
Total revenue per available seat mile (cents) [f]	15.79	15.42	14.68	2.4%	5.0%
Aircraft at end of period	1,551	1,545	1,536	0.4%	0.6%
Fuel consumption (gallons in millions)	4,447	4,352	4,347	2.2%	0.1%
Average aircraft fuel price including related taxes (dollars per gallon)	2.23	1.73	1.42	29.0%	21.4%
Full-time equivalent employees at end of period	128,900	126,600	122,300	1.8%	3.5%
Operating cost per available seat mile (cents) [g]	14.85	13.88	12.83	6.9%	8.2%

[a] Revenue passenger mile (RPM) – A basic measure of sales volume. One RPM represents one passenger flown one mile.

[b] Available seat mile (ASM) – A basic measure of production. One ASM represents one seat flown one mile.

[c] Passenger load factor – The percentage of available seats that are filled with revenue passengers.

[d] Yield – A measure of airline revenue derived by dividing passenger revenue by RPMs.

[e] Passenger revenue per available seat mile (PRASM) – Passenger revenues divided by ASMs.

[f] Total revenue per available seat mile (TRASM) – Total revenues divided by ASMs.

[g] Operating cost per available seat mile (CASM) – Operating expenses divided by ASMs.

Results of Operations – 2018 Compared to 2017

Pre-tax income and net income were $1.9 billion and $1.4 billion in 2018, respectively. This compares to 2017 pre-tax income and net income of $3.4 billion and $1.3 billion, respectively. Excluding the effects of pre-tax net special items, pre-tax income was $2.8 billion and $4.2 billion in 2018 and 2017, respectively. For reconciliation of pre-tax income excluding special items to their comparable measures on a GAAP basis, see Part II, Item 6. Selected Consolidated Financial Data –"Reconciliation of GAAP to Non-GAAP Financial Measures."

The year-over-year declines in our pre-tax income on both a GAAP basis and excluding pre-tax net special items were principally driven by an increase in fuel costs, which was offset in part by higher revenues driven by strong demand.

Operating Revenues

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2018	2017		
	(In millions, except percentage changes)			
Passenger	$40,676	$39,131	$ 1,545	3.9
Cargo	1,013	890	123	13.8
Other	2,852	2,601	251	9.7
Total operating revenues	$44,541	$42,622	$ 1,919	4.5

This table presents our total passenger revenue and the year-over-year change in certain operating statistics:

		Increase (Decrease) vs. Year Ended December 31, 2017				
	Year Ended December 31, 2018 (In millions)	Passenger Revenue	RPMs	ASMs	Load Factor	Passenger Yield	PRASM
Passenger revenue	$ 40,676	3.9%	2.1%	2.0%	0.1pts	1.8%	1.9%

Passenger revenue increased $1.5 billion, or 3.9%, in 2018 from 2017 due to a 2.1% year-over-year increase in RPMs and a 1.8% increase in yields driven by continued strong demand. Domestic yield increased 0.9% and international yields increased 4.2%, led by a 5.3% increase in yield in the Atlantic market.

Cargo revenue increased $123 million, or 13.8%, from 2017 driven primarily by increases in domestic and international freight yields and international freight volume.

Other revenue increased $251 million, or 9.7%, in 2018 from 2017 primarily driven by higher revenue associated with our loyalty program. In 2018 and 2017, loyalty revenue included in other revenue was $2.4 billion and $2.1 billion, respectively.

Total operating revenues in 2018 increased $1.9 billion, or 4.5%, from 2017 driven principally by a 3.9% increase in passenger revenue as described above. Our TRASM was 15.79 cents in 2018, a 2.4% increase as compared to 15.42 cents in 2017.

Operating Expenses

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2018	2017		
	(In millions, except percentage changes)			
Aircraft fuel and related taxes	$8,053	$6,128	$ 1,925	31.4
Salaries, wages and benefits	12,251	11,954	297	2.5
Maintenance, materials and repairs	2,050	1,959	91	4.7
Other rent and landing fees	1,900	1,806	94	5.2
Aircraft rent	1,264	1,197	67	5.6
Selling expenses	1,520	1,477	43	2.9
Depreciation and amortization	1,839	1,702	137	8.1
Special items, net	787	712	75	10.5
Other	5,088	4,910	178	3.6
Regional expenses:				
Aircraft fuel and related taxes	1,843	1,382	461	33.4
Other	5,290	5,164	126	2.5
Total operating expenses	$41,885	$38,391	$ 3,494	9.1

Total operating expenses increased $3.5 billion, or 9.1%, in 2018 from 2017. The increase in operating expenses was primarily driven by an increase in fuel costs. See detailed explanations below relating to changes in total CASM.

Total CASM

We sometimes use financial measures that are derived from the consolidated financial statements but that are not presented in accordance with GAAP to understand and evaluate our current operating performance to allow for period-to-period comparisons. We believe these non-GAAP financial measures may also provide useful information to investors and others. These non-GAAP measures may not be comparable to similarly titled non-GAAP measures of other companies, and should be considered in addition to, and not as a substitute for or superior to, any measure of performance, cash flow or liquidity prepared in accordance with GAAP. We are providing a reconciliation of reported non-GAAP financial measures to their comparable financial measures on a GAAP basis.

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The table below presents the reconciliation of total operating expenses (GAAP measure) to total operating costs excluding special items and fuel (non-GAAP measure). Management uses total operating costs excluding special items and fuel to evaluate our current operating performance and for period-to-period comparisons. The price of fuel, over which we have no control, impacts the comparability of period-to-period financial performance. The adjustment to exclude aircraft fuel and special items allows management an additional tool to understand and analyze our non-fuel costs and core operating performance.

The major components of our total CASM and our total CASM excluding special items and fuel for the years ended December 31, 2018 and 2017 are as follows (amounts may not recalculate due to rounding):

	Year Ended December 31,		Percent Increase (Decrease)
	2018	2017	
	(In cents, except percentage changes)		
Total CASM:			
Aircraft fuel and related taxes	2.86	2.22	28.8
Salaries, wages and benefits	4.34	4.32	0.5
Maintenance, materials and repairs	0.73	0.71	2.6
Other rent and landing fees	0.67	0.65	3.1
Aircraft rent	0.45	0.43	3.5
Selling expenses	0.54	0.53	0.9
Depreciation and amortization	0.65	0.62	5.9
Special items, net	0.28	0.26	8.3
Other	1.80	1.78	1.6
Regional expenses:			
Aircraft fuel and related taxes	0.65	0.50	30.7
Other	1.88	1.87	0.4
Total CASM	14.85	13.88	6.9
Special items, net:			
Special items, net	(0.28)	(0.26)	8.3
Regional operating special items, net	—	(0.01)	nm [1]
Aircraft fuel and related taxes			
Aircraft fuel and related taxes - mainline	(2.86)	(2.22)	28.8
Aircraft fuel and related taxes - regional	(0.65)	(0.50)	30.7
Total CASM, excluding special items and fuel	11.06	10.90	1.4

[1] Not meaningful.

Significant changes in the components of total CASM are as follows:

- Aircraft fuel and related taxes per ASM increased 28.8% primarily due to a 29.1% increase in the average price per gallon of fuel to $2.21 in 2018 from $1.71 in 2017, as well as a 1.8% increase in gallons of fuel consumed.
- Depreciation and amortization per ASM increased 5.9% due in part to our fleet renewal program, as we took delivery of eight owned mainline aircraft in 2018. The continued rollout of Premium Economy and harmonization of seating configurations across our fleet as well as information technology and software development projects associated with our merger integration also drove higher depreciation and amortization expense.
- Regional aircraft fuel and related taxes per ASM increased 30.7% primarily due to a 28.3% increase in the average price per gallon of fuel to $2.30 in 2018 from $1.79 in 2017 as well as a 4.0% increase in gallons of fuel consumed.

Operating Special Items, Net

	Year Ended December 31,	
	2018	2017
	(In millions)	
Fleet restructuring expenses [1]	$ 422	$ 232
Merger integration expenses [2]	268	273
Severance expenses [3]	58	—
Litigation settlement [4]	45	—
Intangible asset impairment [5]	26	—
Labor contract expenses	13	46
Mark-to-market adjustments on bankruptcy obligations, net [6]	(76)	27
Employee 2017 Tax Act bonus expense [7]	—	123
Other operating charges, net	31	11
Total mainline operating special items, net	787	712
Regional operating special items, net	6	22
Total operating special items, net	$ 793	$ 734

(1) Fleet restructuring expenses principally included accelerated depreciation and rent expense for aircraft and related equipment grounded or expected to be grounded earlier than planned.

(2) Merger integration expenses included costs associated with integration projects, principally our flight attendant, human resources and payroll, and technical operations systems.

(3) Severance expenses primarily included costs associated with reductions of management and support staff team members.

(4) Settlement of a private party antitrust lawsuit. See Note 12(e) - “Private Party Antitrust Action Related to Passenger Capacity” to AAG’s Consolidated Financial Statements in Part II, Item 8A for further discussion.

(5) Intangible asset impairment includes a non-cash charge to write-off our Brazil route authority as a result of the U.S.-Brazil open skies agreement.

(6) Bankruptcy obligations that will be settled in shares of our common stock are marked-to-market based on our stock price.

(7) Employee bonus expense included costs related to the $1,000 cash bonus and associated payroll taxes granted to mainline employees as of December 31, 2017 in recognition of H.R. 1, the 2017 Tax Cuts and Jobs Act (the 2017 Tax Act).

Nonoperating Results

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2018	2017		
	(In millions, except percentage changes)			
Interest income	$ 118	$ 94	$ 24	25.8
Interest expense, net	(1,056)	(1,053)	(3)	0.3
Other income, net	166	123	43	35.0
Total nonoperating expense, net	$ (772)	$ (836)	$ 64	(7.7)

Our short-term investments in each period consisted of highly liquid investments that provided nominal returns. Interest income increased $24 million, or 25.8%, in 2018 principally due to a 103 basis point increase in average yields in 2018 as compared to 2017.

In 2018, other nonoperating income, net principally included $308 million of non-service related pension and other postretirement benefit plan income, which reflects an increase in the expected return on pension plan assets in 2018 as compared to 2017. This income was offset in part by a $104 million net special charge for mark-to-market unrealized losses associated with certain of our equity investments, $55 million of net foreign currency losses principally associated with certain Latin American currencies and $13 million of net special charges associated with debt refinancings and extinguishments.

In 2017, other nonoperating income, net principally included $138 million of non-service related pension and other postretirement benefit plan income, offset in part by $22 million of net special charges associated with debt refinancings and extinguishments and $4 million of net foreign currency losses.

Income Taxes

In 2018, we recorded an income tax provision of $472 million at an effective rate of approximately 25%, which was substantially non-cash. This provision included an $18 million special income tax charge related to an international income tax matter. Substantially all of our income before income taxes is attributable to the United States. At December 31, 2018, we had approximately $10.2 billion of federal NOLs and $3.2 billion of state NOLs, substantially all of which we expect to be available in 2019 to reduce future federal and state taxable income.

In 2017, we recorded an income tax provision of $2.1 billion, which was substantially non-cash. This provision included a special, non-cash income tax charge of $823 million to reflect the impact of lower corporate income tax rates on our deferred tax asset and liabilities due to the 2017 Tax Act, which reduced the federal corporate income tax rate from 35% to 21%.

See Note 7 to AAG's Consolidated Financial Statements in Part II, Item 8A for additional information on income taxes.

Results of Operations – 2017 Compared to 2016

Pre-tax income and net income were $3.4 billion and $1.3 billion in 2017, respectively. This compares to 2016 pre-tax income and net income of $4.2 billion and $2.6 billion, respectively. Excluding the effects of pre-tax net special items, pre-tax income was $4.2 billion and $4.9 billion in 2017 and 2016, respectively. For reconciliation of pre-tax income excluding special items to their comparable measures on a GAAP basis, see Part II, Item 6. Selected Consolidated Financial Data –"Reconciliation of GAAP to Non-GAAP Financial Measures."

The year-over-year declines in our pre-tax income on both a GAAP basis and excluding pre-tax net special items were principally driven by an increase in fuel costs and higher wage rates.

Operating Revenues

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2017	2016		
	(In millions, except percentage changes)			
Passenger	$39,131	$37,045	$ 2,086	5.6
Cargo	890	785	105	13.3
Other	2,601	2,312	289	12.5
Total operating revenues	$42,622	$40,142	$ 2,480	6.2

This table presents our total passenger revenue and the year-over-year change in certain operating statistics:

		Increase (Decrease) vs. Year Ended December 31, 2016					
	Year Ended December 31, 2017 (In millions)	Passenger Revenue	RPMs	ASMs	Load Factor	Passenger Yield	PRASM
Passenger revenue	$ 39,131	5.6%	1.3%	1.1%	0.2pts	4.3%	4.5%

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Passenger revenue increased $2.1 billion, or 5.6%, in 2017 from 2016 primarily due to a 4.3% year-over-year increase in yields driven by strong demand. Domestic yield increased 4.8% and international yields rose 4.0%, due principally to improved performance in Latin America.

Cargo revenue increased $105 million, or 13.3%, in 2017 from 2016 driven primarily by an increase in freight volume.

Other revenue increased $289 million, or 12.5%, in 2017 from 2016 driven by higher revenue associated with our loyalty program. In 2017 and 2016, loyalty revenue included in other revenue was $2.1 billion and $1.9 billion, respectively.

Total operating revenues in 2017 increased $2.5 billion, or 6.2%, from 2016 driven principally by a 5.6% increase in passenger revenue as described above. Our TRASM was 15.42 cents in 2017, a 5.0% increase as compared to 14.68 cents in 2016.

Operating Expenses

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2017	2016		
	(In millions, except percentage changes)			
Aircraft fuel and related taxes	$6,128	$5,071	$ 1,057	20.8
Salaries, wages and benefits	11,954	10,967	987	9.0
Maintenance, materials and repairs	1,959	1,834	125	6.8
Other rent and landing fees	1,806	1,772	34	1.9
Aircraft rent	1,197	1,203	(6)	(0.4)
Selling expenses	1,477	1,323	154	11.6
Depreciation and amortization	1,702	1,525	177	11.6
Special items, net	712	709	3	0.5
Other	4,910	4,634	276	5.9
Regional expenses:				
Aircraft fuel and related taxes	1,382	1,109	273	24.6
Other	5,164	4,935	229	4.6
Total operating expenses	$38,391	$35,082	$ 3,309	9.4

Total operating expenses increased $3.3 billion, or 9.4%, in 2017 from 2016. The increase in operating expenses was primarily driven by an increase in fuel costs and higher wage rates. See detailed explanations below relating to changes in total CASM.

Total CASM

We sometimes use financial measures that are derived from the consolidated financial statements but that are not presented in accordance with GAAP to understand and evaluate our current operating performance to allow for period-to-period comparisons. We believe these non-GAAP financial measures may also provide useful information to investors and others. These non-GAAP measures may not be comparable to similarly titled non-GAAP measures of other companies, and should be considered in addition to, and not as a substitute for or superior to, any measure of performance, cash flow or liquidity prepared in accordance with GAAP. We are providing a reconciliation of reported non-GAAP financial measures to their comparable financial measures on a GAAP basis.

The table below presents the reconciliation of total operating expenses (GAAP measure) to total operating costs excluding special items and fuel (non-GAAP measure). Management uses total operating costs excluding special items and fuel to evaluate our current operating performance and for period-to-period comparisons. The price of fuel, over which we have no control, impacts the comparability of period-to-period financial performance. The adjustment to exclude aircraft fuel and special items allows management an additional tool to understand and analyze our non-fuel costs and core operating performance.

The major components of our total CASM and our total CASM excluding special items and fuel for the years ended December 31, 2017 and 2016 are as follows (amounts may not recalculate due to rounding):

	Year Ended December 31,		Percent Increase (Decrease)
	2017	2016	
	(In cents, except percentage changes)		
Total CASM:			
Aircraft fuel and related taxes	2.22	1.85	19.5
Salaries, wages and benefits	4.32	4.01	7.8
Maintenance, materials and repairs	0.71	0.67	5.6
Other rent and landing fees	0.65	0.65	0.8
Aircraft rent	0.43	0.44	(1.6)
Selling expenses	0.53	0.48	10.3
Depreciation and amortization	0.62	0.56	10.4
Special items, net	0.26	0.26	0.6
Other	1.78	1.69	4.8
Regional expenses:			
Aircraft fuel and related taxes	0.50	0.41	23.2
Other	1.87	1.80	3.5
Total CASM	13.88	12.83	8.2
Special items, net:			
Special items, net	(0.26)	(0.26)	(0.6)
Regional operating special items, net	(0.01)	(0.01)	48.4
Aircraft fuel and related taxes			
Aircraft fuel and related taxes - mainline	(2.22)	(1.85)	19.5
Aircraft fuel and related taxes - regional	(0.50)	(0.41)	23.2
Total CASM, excluding special items and fuel	10.90	10.31	5.8

Significant changes in the components of total CASM are as follows:

- Aircraft fuel and related taxes per ASM increased 19.5% primarily due to a 21.4% increase in the average price per gallon of fuel to $1.71 in 2017 from $1.41 in 2016, offset in part by a 0.5% decrease in gallons of fuel consumed. The decrease in fuel consumption was primarily driven by the operation of more fuel efficient aircraft during 2017 in connection with our fleet renewal program.
- Salaries, wages and benefits per ASM increased 7.8% primarily due to mid-contract pay rate increases for pilots and flight attendants effective in the second quarter of 2017, as well as rate increases for maintenance and fleet service work groups, which became effective in the third quarter of 2016.
- Maintenance, materials and repairs per ASM increased 5.6% as compared to 2016 primarily due to a contract change that accelerated the timing of certain maintenance expenses incurred. Certain flight equipment was transitioned to a new flight hour based contract (referred to as power by the hour) where expense is incurred and recognized based on actual hours flown. Previously, this flight equipment was covered by a time and materials based contract where expense is incurred and recognized as maintenance is performed.
- Selling expenses per ASM increased 10.3% primarily due to higher commissions driven by the overall increase in revenues as well as an increase in flown premium tickets, which are subject to higher commissions.
- Depreciation and amortization per ASM increased 10.4% primarily due to our fleet renewal program, as we took delivery of 57 owned mainline aircraft in 2017.
- Regional aircraft fuel and related taxes per ASM increased 23.2% primarily due to a 21.2% increase in the average price per gallon of fuel to $1.79 in 2017 from $1.48 in 2016 as well as a 2.8% increase in gallons of fuel consumed.

Operating Special Items, Net

	Year Ended December 31,	
	2017	2016
	(In millions)	
Merger integration expenses [1]	$ 273	$ 514
Fleet restructuring expenses [2]	232	177
Employee 2017 Tax Act bonus expense [3]	123	—
Labor contract expenses	46	—
Mark-to-market adjustments on bankruptcy obligations, net [4]	27	25
Other operating charges (credits), net	11	(7)
Total mainline operating special items, net	712	709
Regional operating special items, net	22	14
Total operating special items, net	$ 734	$ 723

(1) Merger integration expenses included costs related to information technology, professional fees, re-branding of aircraft and airport facilities and training, and in 2016, also included costs related to alignment of labor union contracts and the launch of re-branded uniforms, both of which drove the $241 million year-over-year decrease in these expenses.

(2) Fleet restructuring expenses principally included accelerated depreciation and remaining lease payments for aircraft and related equipment grounded or expected to be grounded earlier than planned.

(3) Employee bonus expense included costs related to the $1,000 cash bonus and associated payroll taxes granted to mainline employees as of December 31, 2017 in recognition of the 2017 Tax Act.

(4) Bankruptcy obligations that will be settled in shares of our common stock are marked-to-market based on our stock price.

Nonoperating Results

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2017	2016		
	(In millions, except percentage changes)			
Interest income	$94	$63	$ 31	47.8
Interest expense, net	(1,053)	(991)	(62)	6.2
Other income, net	123	20	103	nm
Total nonoperating expense, net	$(836)	$(908)	$ 72	(7.9)

Our short-term investments in each period consisted of highly liquid investments that provided nominal returns.

Interest income increased $31 million, or 47.8%, principally due to a 50 basis point increase in average yields in 2017 as compared to 2016.

Interest expense, net increased $62 million in 2017 primarily due to higher outstanding debt as a result of aircraft financings associated with our fleet renewal program.

Other nonoperating income, net in 2017 and 2016, principally included $138 million and $77 million, respectively, of non-service related pension and other postretirement benefit plan income, which reflects an increase in the expected return on pension plan assets in 2017 as compared to 2016. In 2017 and 2016, this income was offset in part by $22 million and $49 million, respectively, of net special charges associated with debt refinancings and extinguishments.

Income Taxes

In 2017 and 2016, we recorded an income tax provision of $2.1 billion and $1.6 billion, respectively, which was substantially non-cash. Substantially all of our income before income taxes was attributable to the United States.

In 2017, we recorded a special, non-cash income tax charge of $823 million to reflect the impact of lower corporate income tax rates on our deferred tax asset and liabilities due to the 2017 Tax Act, which reduced the federal corporate income tax rate from 35% to 21%.

See Note 7 to AAG's Consolidated Financial Statements in Part II, Item 8A for additional information on income taxes.

American's Results of Operations

Results of Operations – 2018 Compared to 2017

American realized pre-tax income of $2.2 billion and net income of $1.7 billion in 2018. This compares to 2017 pre-tax income of $3.6 billion and net income of $1.3 billion.

The year-over-year decline in American's pre-tax income was principally driven by an increase in fuel costs, which was offset in part by higher revenues driven by strong demand.

Operating Revenues

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2018	2017		
	(In millions, except percentage changes)			
Passenger	$40,676	$39,131	$ 1,545	3.9
Cargo	1,013	890	123	13.8
Other	2,841	2,589	252	9.7
Total operating revenues	$44,530	$42,610	$ 1,920	4.5

Passenger revenue increased $1.5 billion, or 3.9%, in 2018 from 2017 due to a year-over-year increase in RPMs and yields driven by continued strong demand. Domestic and international yields increased, led by an increase in yield in the Atlantic market.

Cargo revenue increased $123 million, or 13.8%, from 2017 driven primarily by increases in domestic and international freight yields and international freight volume.

Other revenue increased $252 million, or 9.7%, in 2018 from 2017 primarily driven by higher revenue associated with American's loyalty program. In 2018 and 2017, loyalty revenue included in other revenue was $2.4 billion and $2.1 billion, respectively.

Total operating revenues in 2018 increased $1.9 billion, or 4.5%, from 2017 driven principally by a 3.9% increase in passenger revenue as described above.

Operating Expenses

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2018	2017		
	(In millions, except percentage changes)			
Aircraft fuel and related taxes	$8,053	$6,128	$ 1,925	31.4
Salaries, wages and benefits	12,240	11,942	298	2.5
Maintenance, materials and repairs	2,050	1,959	91	4.7
Other rent and landing fees	1,900	1,806	94	5.2
Aircraft rent	1,264	1,197	67	5.6
Selling expenses	1,520	1,477	43	2.9
Depreciation and amortization	1,839	1,702	137	8.1
Special items, net	787	712	75	10.5
Other	5,090	4,910	180	3.6
Regional expenses:				
Aircraft fuel and related taxes	1,843	1,382	461	33.4
Other	5,221	5,190	31	0.6
Total operating expenses	$41,807	$38,405	$ 3,402	8.9

Total operating expenses increased $3.4 billion, or 8.9%, in 2018 from 2017. The increase in operating expenses was primarily driven by an increase in fuel costs.

Significant changes in the components of American's total operating expenses are as follows:

- Aircraft fuel and related taxes increased 31.4% primarily due to a 29.1% increase in the average price per gallon of fuel to $2.21 in 2018 from $1.71 in 2017, as well as a 1.8% increase in gallons of fuel consumed.
- Depreciation and amortization increased 8.1% due in part to American's fleet renewal program, as American took delivery of eight owned mainline aircraft in 2018. The continued rollout of Premium Economy and harmonization of seating configurations across American's fleet as well as information technology and software development projects associated with its merger integration also drove higher depreciation and amortization expense.
- Regional aircraft fuel and related taxes increased 33.4% primarily due to a 28.3% increase in the average price per gallon of fuel to $2.30 in 2018 from $1.79 in 2017 as well as a 4.0% increase in gallons of fuel consumed.

Operating Special Items, Net

	Year Ended December 31,	
	2018	2017
	(In millions)	
Fleet restructuring expenses [1]	$ 422	$ 232
Merger integration expenses [2]	268	273
Severance expenses [3]	58	—
Litigation settlement [4]	45	—
Intangible asset impairment [5]	26	—
Labor contract expenses	13	46
Mark-to-market adjustments on bankruptcy obligations, net [6]	(76)	27
Employee 2017 Tax Act bonus expense [7]	—	123
Other operating charges, net	31	11
Total mainline operating special items, net	787	712
Regional operating special items, net	—	3
Total operating special items, net	$ 787	$ 715

(1) Fleet restructuring expenses principally included accelerated depreciation and rent expense for aircraft and related equipment grounded or expected to be grounded earlier than planned.

(2) Merger integration expenses included costs associated with integration projects, principally American's flight attendant, human resources and payroll, and technical operations systems.

(3) Severance expenses primarily included costs associated with reductions of management and support staff team members.

(4) Settlement of a private party antitrust lawsuit. See Note 10(e) - “Private Party Antitrust Action Related to Passenger Capacity” to American’s Consolidated Financial Statements in Part II, Item 8B for further discussion.

(5) Intangible asset impairment includes a non-cash charge to write-off American’s Brazil route authority as a result of the U.S.-Brazil open skies agreement.

(6) Bankruptcy obligations that will be settled in shares of AAG common stock are marked-to-market based on AAG’s stock price.

(7) Employee bonus expense included costs related to the $1,000 cash bonus and associated payroll taxes granted to mainline employees as of December 31, 2017 in recognition of the 2017 Tax Act.

Nonoperating Results

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2018	2017		
	(In millions, except percentage changes)			
Interest income	$330	$215	$ 115	53.4
Interest expense, net	(1,028)	(988)	(40)	4.1
Other income, net	167	123	44	35.3
Total nonoperating expense, net	$(531)	$(650)	$ 119	(18.2)

American’s short-term investments in each period consisted of highly liquid investments that provided nominal returns. Interest income increased $115 million, or 53.4%, due to higher interest-bearing related party receivables from American’s parent company, AAG, as well as a 103 basis point increase in average yields in 2018 as compared to 2017.

In 2018, other nonoperating income, net principally included $309 million of non-service related pension and other postretirement benefit plan income, which reflects an increase in the expected return on pension plan assets in 2018 as

compared to 2017. This income was offset in part by a $104 million net special charge for mark-to-market unrealized losses associated with certain of American's equity investments, $54 million of net foreign currency losses principally associated with certain Latin American currencies and $13 million of net special charges associated with debt refinancings and extinguishments.

In 2017, other nonoperating income, net principally included $138 million of non-service related pension and other postretirement benefit plan income, offset in part by $22 million of net special charges associated with debt refinancings and extinguishments and $4 million of net foreign currency losses.

Income Taxes

American is part of the AAG consolidated income tax return.

In 2018, American recorded an income tax provision of $534 million at an effective rate of approximately 24%, which was substantially non-cash. This provision included an $18 million special income tax charge related to an international income tax matter. Substantially all of American's income before income taxes is attributable to the United States. At December 31, 2018, American had approximately $10.6 billion of federal NOLs and $3.1 billion of state NOLs, substantially all of which American expects to be available in 2019 to reduce future federal and state taxable income.

In 2017, American recorded an income tax provision of $2.3 billion, which was substantially non-cash. This provision included a special, non-cash income tax charge of $924 million to reflect the impact of lower corporate income tax rates on the Company's deferred tax asset and liabilities due to the 2017 Tax Act, which reduced the federal corporate income tax rate from 35% to 21%.

See Note 5 to American's Consolidated Financial Statements in Part II, Item 8B for additional information on income taxes.

Results of Operations – 2017 Compared to 2016

American realized pre-tax income of $3.6 billion and net income of $1.3 billion in 2017. This compares to $4.3 billion of pre-tax income and $2.7 billion of net income in 2016.

The year-over-year decline in American's pre-tax income was principally driven by an increase in fuel costs and higher wage rates.

Operating Revenues

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2017	2016		
	(In millions, except percentage changes)			
Passenger	$39,131	$37,045	$ 2,086	5.6
Cargo	890	785	105	13.3
Other	2,589	2,295	294	12.8
Total operating revenues	$42,610	$40,125	$ 2,485	6.2

Passenger revenue increased $2.1 billion, or 5.6%, in 2017 from 2016 primarily due to a year-over-year increase in yields driven by strong demand.

Cargo revenue increased $105 million, or 13.3%, in 2017 from 2016 driven primarily by an increase in freight volume.

Other revenue increased $294 million, or 12.8%, in 2017 from 2016 driven by higher revenue associated with American's loyalty program. In 2017 and 2016, loyalty revenue included in other revenue was $2.1 billion and $1.9 billion, respectively.

Total operating revenues in 2017 increased $2.5 billion, or 6.2%, from 2016 driven principally by a 5.6% increase in passenger revenue as described above.

Operating Expenses

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2017	2016		
	(In millions, except percentage changes)			
Aircraft fuel and related taxes	$6,128	$5,071	$ 1,057	20.8
Salaries, wages and benefits	11,942	10,958	984	9.0
Maintenance, materials and repairs	1,959	1,834	125	6.8
Other rent and landing fees	1,806	1,772	34	1.9
Aircraft rent	1,197	1,203	(6)	(0.4)
Selling expenses	1,477	1,323	154	11.6
Depreciation and amortization	1,702	1,525	177	11.6
Special items, net	712	709	3	0.5
Other	4,910	4,641	269	5.8
Regional expenses:				
Aircraft fuel and related taxes	1,382	1,109	273	24.6
Other	5,190	4,900	290	5.9
Total operating expenses	$38,405	$35,045	$ 3,360	9.6

Total operating expenses increased $3.4 billion, or 9.6%, in 2017 from 2016. The increase in operating expenses was primarily driven by an increase in fuel costs and higher wage rates.

Significant changes in the components of American's total operating expenses are as follows:

- Aircraft fuel and related taxes increased 20.8% primarily due to a 21.4% increase in the average price per gallon of fuel to $1.71 in 2017 from $1.41 in 2016, offset in part by a 0.5% decrease in gallons of fuel consumed. The decrease in fuel consumption was primarily driven by the operation of more fuel efficient aircraft during 2017 in connection with American's fleet renewal program.
- Salaries, wages and benefits increased 9.0% primarily due to mid-contract pay rate increases for pilots and flight attendants effective in the second quarter of 2017, as well as rate increases for maintenance and fleet service work groups, which became effective in the third quarter of 2016.
- Maintenance, materials and repairs increased 6.8% as compared to 2016 primarily due to a contract change that accelerated the timing of certain maintenance expenses incurred. Certain flight equipment was transitioned to a new flight hour based contract (referred to as power by the hour) where expense is incurred and recognized based on actual hours flown. Previously, this flight equipment was covered by a time and materials based contract where expense is incurred and recognized as maintenance is performed.
- Selling expenses increased 11.6% primarily due to higher commissions driven by the overall increase in revenues as well as an increase in flown premium tickets, which are subject to higher commissions.
- Depreciation and amortization increased 11.6% primarily due to American's fleet renewal program, as American took delivery of 57 owned mainline aircraft in 2017.
- Regional aircraft fuel and related taxes increased 24.6% primarily due to a 21.2% increase in the average price per gallon of fuel to $1.79 in 2017 from $1.48 in 2016 as well as a 2.8% increase in gallons of fuel consumed.

Operating Special Items, Net

	Year Ended December 31,	
	2017	2016
	(In millions)	
Merger integration expenses [1]	$ 273	$ 514
Fleet restructuring expenses [2]	232	177
Employee 2017 Tax Act bonus expense [3]	123	—
Labor contract expenses	46	—
Mark-to-market adjustments on bankruptcy obligations, net [4]	27	25
Other operating charges (credits), net	11	(7)
Total mainline operating special items, net	712	709
Regional operating special items, net	3	13
Total operating special items, net	$ 715	$ 722

(1) Merger integration expenses included costs related to information technology, professional fees, re-branding of aircraft and airport facilities and training, and in 2016, also included costs related to alignment of labor union contracts and the launch of re-branded uniforms, both of which drove the $241 million year-over-year decrease in these expenses.

(2) Fleet restructuring expenses principally included accelerated depreciation and remaining lease payments for aircraft and related equipment grounded or expected to be grounded earlier than planned.

(3) Employee bonus expense included costs related to the $1,000 cash bonus and associated payroll taxes granted to mainline employees as of December 31, 2017 in recognition of the 2017 Tax Act.

(4) Bankruptcy obligations that will be settled in shares of AAG common stock are marked-to-market based on AAG's stock price.

Nonoperating Results

	Year Ended December 31,		Increase (Decrease)	Percent Increase (Decrease)
	2017	2016		
	(In millions, except percentage changes)			
Interest income	$215	$104	$ 111	nm
Interest expense, net	(988)	(906)	(82)	9.1
Other income, net	123	18	105	nm
Total nonoperating expense, net	$(650)	$(784)	$ 134	(17.1)

American's short-term investments in each period consisted of highly liquid investments that provided nominal returns.

Interest income increased $111 million due to higher interest-bearing related party receivables from American's parent company, AAG, as well as a 50 basis point increase in average yields in 2017 as compared to 2016.

Interest expense, net increased $82 million in 2017 primarily due to higher outstanding debt as a result of aircraft financings associated with American's fleet renewal program.

Other nonoperating income, net in 2017 and 2016, principally included $138 million and $77 million, respectively, of non-service related pension and other postretirement benefit plan income, which reflects an increase in the expected return on pension plan assets in 2017 as compared to 2016. In 2017 and 2016, this income was offset in part by $22 million and $49 million, respectively, of net special charges associated with debt refinancings and extinguishments.

Income Taxes

American is part of the AAG consolidated income tax return.

In 2017 and 2016, American recorded an income tax provision of $2.3 billion and $1.6 billion, respectively, which was substantially non-cash. Substantially all of American's income before income taxes was attributable to the United States.

In 2017, American recorded a special, non-cash income tax charge of $924 million to reflect the impact of lower corporate income tax rates on the Company's deferred tax asset and liabilities due to the 2017 Tax Act, which reduced the federal corporate income tax rate from 35% to 21%.

See Note 5 to American's Consolidated Financial Statements in Part II, Item 8B for additional information on income taxes.

Liquidity and Capital Resources

Liquidity

As of December 31, 2018, AAG had approximately $7.6 billion in total available liquidity and $154 million in restricted cash and short-term investments. Additional detail of our available liquidity is provided in the table below (in millions):

	AAG		American	
	December 31,		December 31,	
	2018	2017	2018	2017
Cash	$275	$295	$265	$287
Short-term investments	4,485	4,771	4,482	4,768
Undrawn revolving credit facilities	2,843	2,500	2,843	2,500
Total available liquidity	$7,603	$7,566	$7,590	$7,555

Share Repurchase Programs

In April 2018, we announced that our Board of Directors authorized a new $2.0 billion share repurchase program that expires on December 31, 2020. Since July 2014, our Board of Directors has approved seven share repurchase programs aggregating $13.0 billion of authority. As of December 31, 2018, there was $1.7 billion remaining authority to repurchase shares under our new $2.0 billion share repurchase program. Share repurchases under our repurchase programs may be made through a variety of methods, which may include open market purchases, privately negotiated transactions, block trades or accelerated share repurchase transactions. Any such repurchases that may be made from time to time will be subject to market and economic conditions, applicable legal requirements and other relevant factors. We are not obligated to repurchase any specific number of shares and our repurchase of AAG common stock may be limited, suspended or discontinued at any time at our discretion and without prior notice.

In 2018, we repurchased 16.6 million shares of AAG common stock for $800 million at a weighted average cost per share of $48.15. Since the inception of our share repurchase programs in July 2014 through December 31, 2018, we have repurchased 278.9 million shares of AAG common stock for $11.3 billion at a weighted average cost per share of $40.69.

Cash Dividends

Our Board of Directors declared the following cash dividends during 2018:

Period	Per share	For stockholders of record as of	Payable on	Total (millions)
First Quarter	$0.10	February 6, 2018	February 20, 2018	$ 48
Second Quarter	0.10	May 8, 2018	May 22, 2018	46
Third Quarter	0.10	August 7, 2018	August 21, 2018	46
Fourth Quarter	0.10	November 6, 2018	November 20, 2018	46
Total	$0.40			$ 186

In January 2019, we announced that our Board of Directors declared a $0.10 per share cash dividend for stockholders of record on February 6, 2019, and payable on February 20, 2019.

Any future dividends that may be declared and paid from time to time will be subject to market and economic conditions, applicable legal requirements and other relevant factors. We are not obligated to continue a dividend for any fixed period, and the payment of dividends may be suspended or discontinued at any time at our discretion and without prior notice.

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Collateral-Related Covenants

Certain of our debt financing agreements contain loan to value ratio covenants and require us to appraise the related collateral annually. Pursuant to such agreements, if the loan to value ratio exceeds a specified threshold, we are required, as applicable, to pledge additional qualifying collateral (which in some cases may include cash collateral), or pay down such financing, in whole or in part. As of December 31, 2018, we were in compliance with the collateral coverage tests for our term loans and revolving credit facilities as of the most recent measurement dates. For further information regarding our collateral-related covenants, see Note 5 to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 3 to American's Consolidated Financial Statements in Part II, Item 8B.

Sources and Uses of Cash

AAG

2018 Compared to 2017

Operating Activities

Our net cash provided by operating activities was $3.5 billion and $4.7 billion in 2018 and 2017, respectively, a year-over-year decrease of $1.2 billion. This decrease in operating cash flows was primarily due to lower profitability in 2018 driven by an increase in fuel costs, which was offset in part by higher revenues.

Investing Activities

Our net cash used in investing activities was $2.0 billion and $3.6 billion in 2018 and 2017, respectively.

Our principal investing activities in 2018 included expenditures of $3.7 billion for property and equipment, including 16 Boeing 737-8 MAX aircraft, six Boeing 787 family aircraft and five Embraer E175 aircraft. These cash outflows were offset in part by $1.4 billion of net proceeds primarily from aircraft sale-leaseback transactions and $293 million in net sales of short-term investments.

Our principal investing activities in 2017 included expenditures of $6.0 billion for property and equipment, including 20 Airbus A321 aircraft, 20 Boeing 737-800 aircraft, 16 Embraer E175 aircraft, 13 Boeing 787 family aircraft and four Boeing 737-8 MAX aircraft. We also made a $203 million equity investment in China Southern Airlines. These cash outflows were offset in part by $1.3 billion in net sales of short-term investments, $947 million of net proceeds primarily from aircraft sale-leaseback transactions, and a $309 million decrease in restricted short-term investments.

Financing Activities

Our net cash used in financing activities was $1.7 billion and $1.1 billion in 2018 and 2017, respectively.

Our principal financing activities in 2018 included $2.9 billion in debt repayments, consisting of $2.4 billion in scheduled debt repayments and $513 million in the prepayment of secured loans. We also had $837 million in share repurchases and $186 million in dividend payments. These cash outflows were offset in part by net proceeds of $2.4 billion from the issuance of debt, consisting of $1.9 billion in connection with the issuance of equipment notes related to enhanced equipment trust certificates (EETCs) and the financing of certain aircraft and pre-delivery purchase deposits, as well as an incremental $500 million on a term loan facility.

Our principal financing activities in 2017 included $2.3 billion in scheduled debt repayments, $1.6 billion in share repurchases and $198 million in dividend payments. These cash outflows were offset in part by net proceeds of $3.1 billion from the issuance of debt, including the issuance of $2.0 billion of EETCs and $1.0 billion borrowed in connection with the financing of certain aircraft.

2017 Compared to 2016

Operating Activities

Our net cash provided by operating activities was $4.7 billion and $6.5 billion in 2017 and 2016, respectively, a year-over-year decrease of $1.8 billion. This decrease in operating cash flows was primarily due to lower profitability in 2017 driven by higher fuel costs and wage rates, which were offset in part by higher revenues.

Investing Activities

Our net cash used in investing activities was $3.6 billion and $5.7 billion in 2017 and 2016, respectively.

Our principal investing activities in 2017 included expenditures of $6.0 billion for property and equipment, including 20 Airbus A321 aircraft, 20 Boeing 737-800 aircraft, 16 Embraer E175 aircraft, 13 Boeing 787 family aircraft and four Boeing 737-8 MAX aircraft. We also made a $203 million equity investment in China Southern Airlines. These cash outflows were offset in part by $1.3 billion in net sales of short-term investments, $947 million of net proceeds primarily from aircraft sale-leaseback transactions, and a $309 million decrease in restricted short-term investments.
Our principal investing activities in 2016 included expenditures of $5.7 billion for property and equipment, including 25 Airbus A321 aircraft, 24 Embraer E175 aircraft, 20 Boeing 737-800 aircraft, 18 Bombardier CRJ 900 aircraft, eight Boeing 787 aircraft and two Boeing 777 aircraft.

Financing Activities

Our net cash used in financing activities was $1.1 billion and $894 million in 2017 and 2016, respectively.
Our principal financing activities in 2017 included $2.3 billion in scheduled debt repayments, $1.6 billion in share repurchases and $198 million in dividend payments. These cash outflows were offset in part by net proceeds of $3.1 billion from the issuance of debt, including the issuance of $2.0 billion of EETCs and $1.0 billion borrowed in connection with the financing of certain aircraft.
Our principal financing activities in 2016 included $4.5 billion in share repurchases, $3.8 billion in debt repayments, including the repayment of $588 million and $970 million in remaining principal of the tranche B-2 and tranche B-1 term loans, respectively, under a credit facility for which Citicorp was the Administrative Agent (the 2013 Citicorp Credit Facility), and $224 million in dividend payments. These cash outflows were offset in part by net proceeds of $7.7 billion from the issuance of debt, including the issuance of $2.8 billion of EETCs, $2.3 billion provided under term loan facilities and $1.8 billion borrowed in connection with the financing of certain aircraft.

American

2018 Compared to 2017

Operating Activities

American’s net cash provided by operating activities was $1.9 billion and $2.9 billion in 2018 and 2017, respectively, a year-over-year decrease of $927 million. This decrease in operating cash flows was primarily due to lower profitability in 2018 driven by an increase in fuel costs, which was offset in part by higher revenues.

Investing Activities

American’s net cash used in investing activities was $1.9 billion and $3.6 billion in 2018 and 2017, respectively.
American’s principal investing activities in 2018 included expenditures of $3.7 billion for property and equipment, including 16 Boeing 737-8 MAX aircraft, six Boeing 787 family aircraft and five Embraer E175 aircraft. These cash outflows were offset in part by $1.4 billion of net proceeds primarily from aircraft sale-leaseback transactions and $293 million in net sales of short-term investments.
American’s principal investing activities in 2017 included expenditures of $5.9 billion for property and equipment, including 20 Airbus A321 aircraft, 20 Boeing 737-800 aircraft, 16 Embraer E175 aircraft, 13 Boeing 787 family aircraft and four Boeing 737-8 MAX aircraft. American also made a $203 million equity investment in China Southern Airlines. These cash outflows were offset in part by $1.3 billion in net sales of short-term investments, $922 million of net proceeds primarily from aircraft sale-leaseback transactions, and a $309 million decrease in restricted short-term investments.

Financing Activities

American’s net cash used in financing activities was $147 million in 2018 and net cash provided by financing activities was $668 million in 2017.
American’s principal financing activities in 2018 included $2.4 billion in debt repayments, consisting of $1.9 billion in scheduled debt repayments and $513 million in the prepayment of secured loans. These cash outflows were offset in part by net proceeds of $2.4 billion from the issuance of debt, consisting of $1.9 billion in connection with the issuance of equipment notes related to EETCs and the financing of certain aircraft and pre-delivery purchase deposits, as well as an incremental $500 million on a term loan facility.

American's principal financing activities in 2017 included net proceeds of $3.1 billion from the issuance of debt, including the issuance of $2.0 billion of EETCs and $1.0 billion borrowed in connection with the financing of certain aircraft. These cash inflows were offset in part by $2.3 billion in scheduled debt repayments.

2017 Compared to 2016

Operating Activities

American's net cash provided by operating activities was $2.9 billion and $1.8 billion in 2017 and 2016, respectively, a year-over-year increase of $1.1 billion. AAG has the ability to move funds freely between its subsidiaries to support its cash requirements. The increase in operating cash flows was primarily due to a decrease in intercompany cash transfers from American to AAG. This increase in operating cash flows was offset in part by lower profitability in 2017 driven by higher fuel costs and wage rates, which were offset in part by higher revenues.

Investing Activities

American's net cash used in investing activities was $3.6 billion and $5.6 billion in 2017 and 2016, respectively.

American's principal investing activities in 2017 included expenditures of $5.9 billion for property and equipment, including 20 Airbus A321 aircraft, 20 Boeing 737-800 aircraft, 16 Embraer E175 aircraft, 13 Boeing 787 family aircraft and four Boeing 737-8 MAX aircraft. American also made a $203 million equity investment in China Southern Airlines. These cash outflows were offset in part by $1.3 billion in net sales of short-term investments, $922 million of net proceeds primarily from aircraft sale-leaseback transactions, and a $309 million decrease in restricted short-term investments.

American's principal investing activities in 2016 included expenditures of $5.7 billion for property and equipment, including 25 Airbus A321 aircraft, 24 Embraer E175 aircraft, 20 Boeing 737-800 aircraft, 18 Bombardier CRJ 900 aircraft, eight Boeing 787 aircraft and two Boeing 777 aircraft.

Financing Activities

American's net cash provided by financing activities was $668 million and $3.8 billion in 2017 and 2016, respectively.

American's principal financing activities in 2017 included net proceeds of $3.1 billion from the issuance of debt, including the issuance of $2.0 billion of EETCs and $1.0 billion borrowed in connection with the financing of certain aircraft. These cash inflows were offset in part by $2.3 billion in scheduled debt repayments.

American's principal financing activities in 2016 included net proceeds of $7.7 billion from the issuance of debt, including the issuance of $2.8 billion of EETCs, $2.3 billion provided under term loan facilities and $1.8 billion borrowed in connection with the financing of certain aircraft. These cash inflows were offset in part by $3.8 billion in debt repayments, including the repayment of $588 million and $970 million in remaining principal of the 2013 Citicorp Credit Facility tranche B-2 and tranche B-1 term loans, respectively.

Commitments

For further information regarding our commitments, see the Notes to AAG's Consolidated Financial Statements in Part II, Item 8A and the Notes to American's Consolidated Financial Statements in Part II, Item 8B at the referenced footnotes below.

	AAG	American
Long-term debt and debt covenants	Note 5	Note 3
Leases	Note 6	Note 4
Employee benefit plans	Note 10	Note 8
Commitments, contingencies and guarantees	Note 12	Note 10

Off-Balance Sheet Arrangements

An off-balance sheet arrangement is any transaction, agreement or other contractual arrangement involving an unconsolidated entity under which a company has (1) made guarantees, (2) a retained or a contingent interest in transferred assets, (3) an obligation under derivative instruments classified as equity or (4) any obligation arising out of a material variable interest in an unconsolidated entity that provides financing, liquidity, market risk or credit risk support to us, or that engages in leasing, hedging or research and development arrangements with us.

We have no off-balance sheet arrangements of the types described in the first three categories above that we believe may have a material current or future effect on financial condition, liquidity or results of operations. Certain guarantees that we do not expect to have a material current or future effect on our financial condition, liquidity or results of operations are disclosed in Note 12(d) to AAG's Consolidated Financial Statements included in Part II, Item 8A and Note 10(d) to American's Consolidated Financial Statements in Part II, Item 8B.

Pass-Through Trusts

We have financed certain aircraft and engines with EETCs, issued by pass-through trusts. These trusts are off-balance sheet entities, the primary purpose of which is to finance the acquisition of flight equipment. Rather than finance each aircraft separately when such aircraft is purchased, delivered or refinanced, these trusts allow American to raise the financing for a number of aircraft at one time and, if applicable, place such funds in escrow pending a future purchase, delivery or refinancing of the relevant aircraft. The trusts have also been structured to provide for certain credit enhancements, such as liquidity facilities to cover certain interest payments, that reduce the risks to the purchasers of the trust certificates and, as a result, reduce the cost of aircraft financing to American.

Each trust covers a set number of aircraft scheduled to be delivered or refinanced upon the issuance of the EETC or within a specific period of time thereafter. At the time of each covered aircraft financing, the relevant trust used the proceeds of the issuance of the EETC (which may have been available at the time of issuance thereof or held in escrow until financing of the applicable aircraft following its delivery) to purchase equipment notes relating to the financed aircraft. The equipment notes are issued, at American's election, in connection with a mortgage financing of the aircraft or, in certain cases, by a separate owner trust in connection with a leveraged lease financing of the aircraft. In the case of a leveraged lease financing, the owner trust then leases the aircraft to American. In both cases, the equipment notes are secured by a security interest in the aircraft. The pass-through trust certificates are not direct obligations of, nor are they guaranteed by, AAG or American. However, in the case of mortgage financings, the equipment notes issued to the trusts are direct obligations of American and, in certain instances, have been guaranteed by AAG. As of December 31, 2018, $11.6 billion associated with these mortgage financings is reflected as debt in the accompanying consolidated balance sheet.

With respect to leveraged leases, American evaluated whether the leases had characteristics of a variable interest entity. American concluded the leasing entities met the criteria for variable interest entities. American generally is not the primary beneficiary of the leasing entities if the lease terms are consistent with market terms at the inception of the lease and do not include a residual value guarantee, fixed-price purchase option or similar feature that obligates American to absorb decreases in value or entitles American to participate in increases in the value of the aircraft. American does not provide residual value guarantees to the bondholders or equity participants in the trusts. Some leases have a fair market value or a fixed price purchase option that allows American to purchase the aircraft at or near the end of the lease term. However, the option price approximates an estimate of the aircraft's fair value at the option date. Under this feature, American does not participate in any increases in the value of the aircraft. American concluded it is not the primary beneficiary under these arrangements. Therefore, American accounts for the majority of its EETC leveraged lease financings as operating leases. American's total future payments to the trusts of each of the relevant EETCs under these leveraged lease financings are $352 million as of December 31, 2018.

Letters of Credit and Other

We provide financial assurance, such as letters of credit, surety bonds or restricted cash and investments, primarily to support projected workers' compensation obligations and airport commitments. As of December 31, 2018, we had $460 million of letters of credit and surety bonds securing various obligations. The letters of credit and surety bonds that are subject to expiration will expire on various dates through 2022.

Contractual Obligations

The following table provides details of our future cash contractual obligations as of December 31, 2018. The table does not include commitments that are contingent on events or other factors that are uncertain or unknown at this time.

	Payments Due by Period						
	2019	2020	2021	2022	2023	2024 and Thereafter	Total
American [a]							
Long-term debt:							
Principal amount [b], [d] (See Note 3)	$2,508	$1,815	$3,409	$1,344	$3,892	$ 9,754	$22,722
Interest obligations [c], [d]	939	837	731	598	511	1,121	4,737
Finance lease obligations (See Note 4)	124	120	118	122	105	282	871
Aircraft and engine purchase commitments [e] (See Note 10(a))	2,906	1,683	994	1,378	1,450	6,047	14,458
Operating lease commitments [f] (See Note 4)	1,894	1,824	1,625	1,428	1,250	3,611	11,632
Regional capacity purchase agreements [g] (See Note 10(b))	1,101	930	765	618	487	1,043	4,944
Minimum pension obligations [h] (See Note 8)	801	625	671	939	909	1,263	5,208
Retiree medical and other postretirement benefits (See Note 8)	23	17	17	17	23	280	377
Other purchase obligations [i] (See Note 10(a))	1,873	1,068	1,009	32	7	92	4,081
Total American Contractual Obligations	$12,169	$8,919	$9,339	$6,476	$8,634	$ 23,493	$69,030
AAG Parent and Other AAG Subsidiaries [a]							
Long-term debt:							
Principal amount [b] (See Note 5)	$750	$505	$2	$2	$2	$ 18	$1,279
Interest obligations [c]	67	14	2	2	1	4	90
Minimum pension obligations [h] (See Note 10)	6	4	5	5	5	13	38
Operating lease commitments (See Note 6)	18	14	11	10	5	9	67
Total AAG Contractual Obligations	$13,010	$9,456	$9,359	$6,495	$8,647	$ 23,537	$70,504

[a] For additional information, see the Notes to AAG's and American's Consolidated Financial Statements in Part II, Items 8A and 8B, respectively, referenced in the table above.

[b] Amounts represent contractual amounts due. Excludes $219 million and $3 million of unamortized debt discount, premium and issuance costs as of December 31, 2018 for American and AAG Parent, respectively.

[c] For variable-rate debt, future interest obligations are estimated using the current forward rates at December 31, 2018.

[d] Includes $11.6 billion of future principal payments and $2.4 billion of future interest payments, respectively, as of December 31, 2018, related to EETCs associated with mortgage financings for the purchase of certain aircraft.

[e] See Part I, Item 2. Properties – "Aircraft and Engine Purchase Commitments" for additional information about the firm commitment aircraft delivery schedule. Boeing has committed to provide sale-leaseback financing (in the form of operating leases) for 22 787-8 aircraft to be delivered in 2020 and 2021. This financing is reflected in the operating lease commitments line above.

[f] Includes $352 million of future minimum lease payments related to EETC leveraged lease financings of certain aircraft as of December 31, 2018.

[g] Represents minimum payments under capacity purchase agreements with third-party regional carriers. These commitments are estimates of costs based on assumed minimum levels of flying under the capacity purchase agreements and our actual payments could differ materially. Rental payments under operating leases for certain aircraft flown under these capacity purchase agreements is reflected in the operating lease commitments line

above.

(h) Includes minimum pension contributions based on actuarially determined estimates and is based on estimated payments through 2028. The total AAG expected pension contribution of $807 million in 2019 assumes a supplemental contribution of $21 million in addition to the $786 million minimum required contribution.

(i) Includes purchase commitments for jet fuel, construction projects and information technology support.

Capital Raising Activity and Other Possible Actions

In light of our significant financial commitments related to, among other things, new aircraft, the servicing and amortization of existing debt and equipment leasing arrangements, and future pension funding obligations, we and our subsidiaries will regularly consider, and enter into negotiations related to, capital raising activity, which may include the entry into leasing transactions and future issuances of secured or unsecured debt obligations or additional equity securities in public or private offerings or otherwise. The cash available from operations and these sources, however, may not be sufficient to cover cash contractual obligations because economic factors may reduce the amount of cash generated by operations or increase costs. For instance, an economic downturn or general global instability caused by military actions, terrorism, disease outbreaks, natural disasters or other causes could reduce the demand for air travel, which would reduce the amount of cash generated by operations. An increase in costs, either due to an increase in borrowing costs caused by a reduction in credit ratings or a general increase in interest rates, or due to an increase in the cost of fuel, maintenance, or aircraft, aircraft engines or parts, could decrease the amount of cash available to cover cash contractual obligations. Moreover, certain of our financing arrangements contain significant minimum cash balance requirements. As a result, we cannot use all of our available cash to fund operations, capital expenditures and cash obligations without violating these requirements. See Note 5 to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 3 to American's Consolidated Financial Statements in Part II, Item 8B for information regarding our financing arrangements.

In the past, we have from time to time refinanced, redeemed or repurchased our debt and taken other steps to reduce or otherwise manage the aggregate amount and cost of our debt or lease obligations or otherwise improve our balance sheet. Going forward, depending on market conditions, our cash position and other considerations, we may continue to take such actions.

Our Board of Directors has from time to time authorized programs to repurchase shares of our common stock, one of which is currently in effect, and may authorize additional share repurchase programs in the future.

OTHER INFORMATION

Basis of Presentation

See Note 1 to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 1 to American's Consolidated Financial Statements in Part II, Item 8B for information regarding the basis of presentation.

Critical Accounting Policies and Estimates

The preparation of financial statements in accordance with GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities at the date of the financial statements. We believe our estimates and assumptions are reasonable; however, actual results could differ from those estimates. Critical accounting policies are defined as those that are reflective of significant judgments and uncertainties and could potentially result in materially different results under different assumptions and conditions. We have identified the following critical accounting policies that impact the preparation of our consolidated financial statements. See the "Basis of Presentation and Summary of Significant Accounting Policies" included in Note 1 to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 1 to American's Consolidated Financial Statements in Part II, Item 8B for additional discussion of the application of these estimates and other accounting policies.

Passenger Revenue

We recognize all revenues generated from transportation on American and our regional flights operated under the brand name American Eagle, including associated baggage fees, ticketing change fees and other inflight services, as passenger revenue when transportation is provided. Ticket and other related sales for transportation that has not yet been provided are initially deferred and recorded as air traffic liability on our consolidated balance sheets. The air traffic liability principally represents tickets sold for future travel on American and partner airlines, as well as estimated future refunds and exchanges of tickets sold for past travel.

The majority of tickets sold are nonrefundable. A small percentage of tickets, some of which are partially used tickets, expire unused. Due to complex pricing structures, refund and exchange policies, and interline agreements with other airlines,

certain amounts are recognized in passenger revenue using estimates regarding both the timing of the revenue recognition and the amount of revenue to be recognized. These estimates are generally based on the analysis of our historical data. We have consistently applied this accounting method to estimate revenue from forfeited tickets at the date of travel. Estimated future refunds and exchanges included in the air traffic liability are routinely evaluated based on subsequent activity to validate the accuracy of our estimates. Any adjustments resulting from periodic evaluations of the estimated air traffic liability are included in passenger revenue during the period in which the evaluations are completed.

Various taxes and fees assessed on the sale of tickets to end customers are collected by us as an agent and remitted to taxing authorities. These taxes and fees have been presented on a net basis in the accompanying consolidated statements of operations and recorded as a liability until remitted to the appropriate taxing authority.

Loyalty Revenue

We currently operate the loyalty program, AAdvantage. This program awards mileage credits to passengers who fly on American, any oneworld airline or other partner airlines, or by using the services of other program participants, such as the Citi and Barclaycard US co-branded credit cards, hotels and car rental companies. Mileage credits can be redeemed for travel on American and other participating partner airlines, as well as other non-air travel awards such as hotels and rental cars. For mileage credits earned by AAdvantage loyalty program members, we apply the deferred revenue method in accordance with the New Revenue Standard.

Mileage credits earned through travel

For mileage credits earned through travel, we apply a relative selling price approach whereby the total amount collected from each passenger ticket sale is allocated between the air transportation and the mileage credits earned. The portion of each passenger ticket sale attributable to mileage credits earned is initially deferred and then recognized in passenger revenue when mileage credits are redeemed and transportation is provided. The estimated selling price of mileage credits is determined using an equivalent ticket value approach, which uses historical data, including award redemption patterns by geographic region and class of service, as well as similar fares as those used to settle award redemptions. The estimated selling price of miles is adjusted for an estimate of miles that will not be redeemed based on historical redemption patterns. For the year ended December 31, 2018, a hypothetical 10% increase in the estimated selling price of miles would have decreased revenues by approximately $100 million as a result of additional amounts deferred from passenger ticket sales.

Mileage credits sold to co-branded credit cards and other partners

We sell mileage credits to participating airline partners and non-airline business partners including our co-branded credit card partners, under contracts with terms extending generally for one to nine years. Consideration received from the sale of mileage credits is variable and payment terms typically are within 30 days subsequent to the month of mileage sale. Sales of mileage credits to non-airline business partners are comprised of two components, transportation and marketing. We allocate the consideration received from these sales of mileage credits based on the relative selling price of each product or service delivered.

Our most significant partner agreements are our co-branded credit card agreements with Citi and Barclaycard US that we entered into in 2016. We identified the following revenue elements in these co-branded credit card agreements: the transportation component; and the use of intellectual property, including the American brand and access to loyalty program member lists, which is the predominant element in the agreements, as well as advertising (collectively, the marketing component). Accordingly, we recognize the marketing component in other revenue in the period of the mileage sale following the sales-based royalty method.

The transportation component represents the estimated selling price of future travel awards and is determined using the same equivalent ticket value approach described above. The portion of each mileage credit sold attributable to transportation is initially deferred and then recognized in passenger revenue when mileage credits are redeemed and transportation is provided.

For the portion of our outstanding mileage credits that we estimate will not be redeemed, we recognize the associated value proportionally as the remaining mileage credits are redeemed. Our estimates are based on analysis of historical redemptions. For the year ended December 31, 2018, a hypothetical 10% increase in our estimate of miles not expected to be redeemed would have increased revenues by approximately $100 million.

Cargo Revenue
Cargo revenue is recognized when we provide the transportation.

Other Revenue

Other revenue includes revenue associated with our loyalty program, which is comprised principally of the marketing component of mileage sales to co-branded credit card and other partners and other marketing related payments. The accounting and recognition for the loyalty program marketing services are discussed above in “Loyalty Revenue.” The remaining amounts included within other revenue relate to airport clubs, advertising and vacation-related services.

Long-lived Assets

Long-lived assets consist of flight equipment, as well as other fixed assets and finite-lived intangible assets such as certain domestic airport slots, customer relationships, marketing agreements, tradenames and airport gate leasehold rights. In addition to the original cost, the recorded value of our fixed assets is impacted by a number of estimates made, including estimated useful lives, salvage values and our determination as to whether aircraft are temporarily or permanently grounded. Finite-lived intangible assets are originally recorded at their acquired fair values and are subsequently amortized over their estimated useful lives. See Note 1 to AAG’s Consolidated Financial Statements in Part II, Item 8A and Note 1 to American’s Consolidated Financial Statements in Part II, Item 8B for further information.

We assess impairment on long-lived assets used in operations when events and circumstances indicate that the assets may be impaired. An asset or group of assets is considered impaired when the undiscounted cash flows estimated to be generated by the assets are less than the carrying amount of the assets and the net book value of the assets exceeds their estimated fair value. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Estimates of fair value represent management’s best estimate based on appraisals, industry trends and reference to market rates and transactions.

The majority of American’s aircraft fleet types are depreciated over 25-30 years. It is possible that the ultimate lives of our aircraft will be significantly different than the current estimate due to unforeseen events in the future that impact our fleet plan, including positive or negative developments in the areas described above. For example, operating the aircraft for a longer period will result in higher maintenance, fuel and other operating costs than if we replaced the aircraft.

Leases

We adopted ASU 2016-02: Leases (Topic 842) (the New Lease Standard) as of January 1, 2018. See “Recent Accounting Pronouncements” below for further discussion about the New Lease Standard and its impact on our consolidated balance sheet. We determine if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use (ROU) assets, current operating lease liabilities and noncurrent operating lease liabilities in our consolidated balance sheet. Finance leases are included in property and equipment, current maturities of long-term debt and finance leases and long-term debt and finance leases, net of current maturities, in our consolidated balance sheet.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. ROU assets and liabilities are recognized at the lease commencement date based on the estimated present value of lease payments over the lease term.

We use our estimated incremental borrowing rate, which is derived from information available at the lease commencement date, in determining the present value of lease payments. We give consideration to our recent debt issuances as well as publicly available data for instruments with similar characteristics when calculating our incremental borrowing rates. A 100 basis point decrease in our estimate of the incremental borrowing rate at January 1, 2018 (the date of our adoption of the New Lease Standard) would increase our operating lease liability by approximately $275 million.

Our lease term includes options to extend the lease when it is reasonably certain that we will exercise that option. Leases with a term of 12 months or less are not recorded on the balance sheet. Our lease agreements do not contain any residual value guarantees.

Under certain of our capacity purchase agreements with third-party regional carriers, we do not own the underlying aircraft. However, since we control the marketing, scheduling, ticketing, pricing and seat inventories of these aircraft and therefore control the asset, the aircraft is deemed to be leased for accounting purposes. For these capacity

purchase agreements, we account for the lease and non-lease components separately. The lease component consists of the aircraft and the non-lease components consist of services, such as the crew and maintenance. We allocate the consideration in the capacity purchase agreements to the lease and non-lease components using their estimated relative standalone prices. See Note 12(b) to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 10(b) to American's Consolidated Financial Statements in Part II, Item 8B for additional information on our capacity purchase agreements.

For real estate, we account for the lease and non-lease components as a single lease component.

Goodwill and Indefinite-lived Assets

Goodwill represents the excess of the purchase price over the fair value of the net assets acquired and liabilities assumed. Goodwill is not amortized but assessed for impairment annually on October 1st or more frequently if events or circumstances indicate that goodwill may be impaired. We have one consolidated reporting unit.

Indefinite-lived intangible assets other than goodwill include certain domestic airport slots at our hubs and international slots and route authorities. Indefinite-lived intangible assets are not amortized but instead are assessed for impairment annually on October 1st or more frequently if events or circumstances indicate that the asset may be impaired.

In the second quarter of 2018, American recorded a $26 million impairment charge on a Brazil route authority as a result of the U.S.-Brazil open skies agreement.

Goodwill and indefinite-lived intangible assets are assessed for impairment by initially performing a qualitative assessment. Under the qualitative approach, we analyze the following factors, among others, to determine if events and circumstances have affected the fair value of goodwill and indefinite-lived intangible assets: (1) negative trends in our market capitalization, (2) an increase in fuel prices, (3) declining per mile passenger yields, (4) lower passenger demand as a result of a weakened U.S. and global economy and (5) changes to the regulatory environment.

Based upon our annual assessment, there were no impairments of our goodwill and no additional impairments of our indefinite-lived assets in 2018 other than the Brazil route authority described above.

Pensions and Retiree Medical and Other Postretirement Benefits

We recognize the funded status (i.e., the difference between the fair value of plan assets and the projected benefit obligations) of our pension and retiree medical and other postretirement benefits plans in the consolidated balance sheets with a corresponding adjustment to accumulated other comprehensive income (loss).

Our pension and retiree medical and other postretirement benefits costs and liabilities are calculated using various actuarial assumptions and methodologies. We use certain assumptions including, but not limited to, the selection of the: (1) discount rate, (2) expected return on plan assets, (3) expected health care cost trend rate and (4) estimated age of pilot retirement (as discussed below). These assumptions as of December 31 were:

	2018	2017
Pension weighted average discount rate [1]	4.40%	3.80%
Retiree medical and other postretirement benefits weighted average discount rate [1]	4.30%	3.60%
Expected rate of return on plan assets [2]	8.00%	8.00%
Weighted average health care cost trend rate assumed for next year [3]:		
Initial	3.91%	4.19%
Ultimate (2026)	3.45%	3.76%
Assumed Pilot Retirement Age	63	62

(1) When establishing our discount rate to measure our obligations, we match high quality corporate bonds available in the marketplace whose cash flows approximate our projected benefit disbursements. Lowering the discount rate by 50 basis points as of December 31, 2018 would increase our pension and retiree medical and other postretirement benefits obligations by approximately $1.1 billion and $37 million, respectively, and increase both estimated 2019 pension expense and estimated 2019 retiree medical and other postretirement benefits expense by $2 million and less than $1 million, respectively.

(2) The expected rate of return on plan assets is based upon an evaluation of our historical trends and experience, taking into account current and expected market conditions and our target asset allocation of 30% U.S. stocks, 22% developed international stocks, 20% fixed income securities, 20% alternative (private) investments and 8% emerging market stocks. The expected rate of return on plan assets component of our net periodic benefit cost is calculated based on the fair value of plan assets and our target asset allocation. Lowering the expected long-term rate of return on plan assets by 50 basis points as of December 31, 2018 would increase estimated 2019 pension expense and retiree medical and other postretirement benefits expense by approximately $51 million and $1 million, respectively.

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(3) The assumed health care cost trend rate is based upon an evaluation of our historical trends and experience, taking into account current and expected market conditions. Increasing the assumed health care cost trend rate by 100 basis points would increase estimated 2019 retiree medical and other postretirement benefits expense by $6 million.

During 2018, we reviewed and revised certain economic and demographic assumptions including the pension and retiree medical and other postretirement benefits discount rates, retirement rates and health care cost and trend rates. The net effect of changing these assumptions for the pension plans resulted in a decrease of $1.8 billion in the projected benefit obligation at December 31, 2018. The net effect of changing these assumptions for retiree medical and other postretirement benefits plans resulted in a decrease of $126 million in the projected benefit obligation at December 31, 2018. We also revised our mortality assumptions to incorporate the new mortality improvement scale issued by the Society of Actuaries. This resulted in a decrease in the projected benefit obligations of our pension and retiree medical and other postretirement benefits plans of $58 million and $1 million, respectively.

See Note 10 to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 8 to American's Consolidated Financial Statements in Part II, Item 8B for additional information regarding our employee benefit plans.

Recent Accounting Pronouncements

Standards Adopted in 2018

Effective January 1, 2018, we adopted the accounting pronouncements described below.

ASU 2014-09: Revenue from Contracts with Customers (Topic 606) (the New Revenue Standard)

The New Revenue Standard applies to all companies that enter into contracts with customers to transfer goods or services. We adopted the New Revenue Standard using the full retrospective method, which resulted in the recast of prior reporting periods.

The adoption of the New Revenue Standard impacted our accounting for outstanding mileage credits earned through travel by AAdvantage loyalty program members. There was no change in accounting for sales of mileage credits to co-branded credit card or other partners. Prior to the adoption of the New Revenue Standard, we used the incremental cost method to account for the portion of our loyalty program liability related to mileage credits earned through travel, which were valued based on the estimated incremental cost of carrying one additional passenger. The New Revenue Standard required us to change our policy to the deferred revenue method and apply a relative selling price approach whereby a portion of each passenger ticket sale attributable to mileage credits earned is deferred and recognized in passenger revenue upon future mileage redemption. The value of the earned mileage credits is materially greater under the deferred revenue method than the value attributed to these mileage credits under the incremental cost method.

The New Revenue Standard also required certain reclassifications, principally the reclassification of certain ancillary revenues previously classified and reported as other revenue to passenger revenue and as applicable to cargo revenue. Additionally, the New Revenue Standard required a gross presentation on the face of our consolidated statements of operations for certain revenues and expenses that had previously been presented on a net basis.

See "Impacts to 2017 Results" and "Impacts to 2016 Results" below for the impact to our consolidated statements of operations data for 2017 and 2016, respectively, and our consolidated balance sheet as of December 31, 2017 related to the adoption of the New Revenue Standard.

ASU 2017-07: Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost (the New Retirement Standard)

The New Retirement Standard required all components of our net periodic benefit cost (income), with the exception of service cost, previously reported within operating expenses as salaries, wages and benefits, to be reclassified and reported within nonoperating income (expense). The New Retirement Standard was applied retrospectively, which resulted in the recast of each prior reporting period presented. The adoption of the New Retirement Standard had no impact on pre-tax income or net income reported.

See "Impacts to 2017 Results" and "Impacts to 2016 Results" below for the impact to our consolidated statements of operations data for 2017 and 2016, respectively, related to the adoption of the New Retirement Standard.

ASU 2016-02: Leases (Topic 842) (the New Lease Standard)

The New Lease Standard requires lessees to recognize a lease liability and a right-of-use (ROU) asset on the balance sheet for operating leases. Accounting for finance leases is substantially unchanged. The New Lease Standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted.

In the fourth quarter of 2018, we elected to early adopt the New Lease Standard as of January 1, 2018 using a modified retrospective transition, with the cumulative-effect adjustment to the opening balance of retained earnings as of the effective date (the effective date method). Under the effective date method, financial results reported in periods prior to 2018 are unchanged. We also elected the package of practical expedients, which among other things, does not require reassessment of lease classification.

The adoption of the New Lease Standard had a significant impact on our consolidated balance sheet due to the recognition of approximately $10 billion of lease liabilities with corresponding right-of-use assets for operating leases. Additionally, we recognized a $197 million cumulative effect adjustment credit, net of tax, to retained earnings. The adjustment to retained earnings was driven principally by sale-leaseback transactions including the recognition of unamortized deferred aircraft sale-leaseback gains. Prior to the adoption of the New Lease Standard, gains on sale-leaseback transactions were generally deferred and recognized in the income statement over the lease term. Under the New Lease Standard, gains on sale-leaseback transactions (subject to adjustment for off-market terms) are recognized immediately.

Finally, our 2018 pre-tax income decreased by $16 million as a result of adoption of the New Lease Standard.

ASU 2016-01: Financial Instruments - Overall (Subtopic 825-10)

This ASU made several modifications to Subtopic 825-10, including the elimination of the available-for-sale classification of equity investments, and it required equity investments with readily determinable fair values to be measured at fair value with changes in fair value recognized in net income. This standard was adopted prospectively as of January 1, 2018 and resulted in a $60 million cumulative effect adjustment credit to retained earnings, net of tax, related to our investment in China Southern Airlines, which was previously accounted for under the cost method.

ASU 2016-18: Statement of Cash Flows (Topic 230): Restricted Cash

This ASU required that the change in the total cash balance, cash at the beginning of the period and cash at the end of the period on the statement of cash flows include restricted cash, and also required companies that report cash and restricted cash separately on the balance sheet to reconcile those amounts to the statement of cash flows. This standard was applied retrospectively, which resulted in the recast of prior reporting periods in the statement of cash flows. For the years ended December 31, 2018, 2017 and 2016, $11 million, $103 million and $113 million, respectively, of restricted cash is included in the total cash and restricted cash balance at the end of the period. A reconciliation of cash and restricted cash reported on our consolidated statements of cash flows to the amounts reported on our consolidated balance sheets is provided in a table below the Consolidated Statements of Cash Flows in Part II, Item 8A - AAG’s Consolidated Financial Statements.

Impacts to 2017 Results

The effects of the adoption of the New Revenue Standard and New Retirement Standard to our consolidated statement of operations for the twelve months ended December 31, 2017 were as follows (in millions):

		New Revenue Standard			New Retirement Standard	
Year Ended December 31, 2017	As Reported	Deferred Revenue Method	Ancillary Revenue Reclassifications	Gross Versus Net Presentation	Reclassifications	As Recast
Operating revenues:						
Passenger	$36,133	$311	$ 2,648	$ 39	$ —	$39,131
Cargo	800	—	42	48	—	890
Other	5,274	—	(2,690)	17	—	2,601
Total operating revenues	42,207	311	—	104	—	42,622
Total operating expenses	38,149	—	—	104	138	38,391
Operating income	4,058	311	—	—	(138)	4,231
Total nonoperating expense, net	(974)	—	—	—	138	(836)
Income before income taxes	3,084	311	—	—	—	3,395
Income tax provision [1]	1,165	948	—	—	—	2,113
Net income	$1,919	$(637)	$ —	$ —	$ —	$1,282
Diluted earnings per common share	$3.90					$2.61

(1) The adjustment to the 2017 income tax provision includes an $823 million special charge to reduce our deferred tax asset associated with loyalty program liabilities as a result of the 2017 Tax Act enacted in December 2017 that reduced the federal corporate income tax rate from 35% to 21%.

The effects of the adoption of the New Revenue Standard to our December 31, 2017 consolidated balance sheet were as follows (in millions):

	As Reported	New Revenue Standard	As Recast
Deferred tax asset	$ 427	$1,389	$1,816
Air traffic liability	3,978	64	4,042
Current loyalty program liability	2,791	330	3,121
Noncurrent loyalty program liability	—	5,701	5,701
Total stockholders' equity (deficit)	3,926	(4,706)	(780)

Impacts to 2016 Results

The effects of the adoption of the New Revenue Standard and New Retirement Standard to our consolidated statement of operations for the twelve months ended December 31, 2016 were as follows (in millions):

		New Revenue Standard			New Retirement Standard	
Year Ended December 31, 2016	As Reported	Deferred Revenue Method	Ancillary Revenue Reclassifications	Gross Versus Net Presentation	Reclassifications	As Recast
Operating revenues:						
Passenger	$34,579	$(147)	$ 2,571	$ 42	$ —	$37,045
Cargo	700	—	36	49	—	785
Other	4,901	—	(2,607)	18	—	2,312
Total operating revenues	40,180	(147)	—	109	—	40,142
Total operating expenses	34,896	—	—	109	77	35,082
Operating income	5,284	(147)	—	—	(77)	5,060
Total nonoperating expense, net	(985)	—	—	—	77	(908)
Income before income taxes	4,299	(147)	—	—	—	4,152
Income tax provision	1,623	(55)	—	—	—	1,568
Net income	$2,676	$(92)	$ —	$ —	$ —	$2,584
Diluted earnings per common share	$4.81					$4.65

Standards Effective for 2019 Reporting Periods

ASU 2018-02: Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income

This ASU provides financial statement preparers with an option to reclassify stranded tax effects within accumulated other comprehensive income to retained earnings due to the U.S. federal corporate income tax rate change as a result of the 2017 Tax Act. The amount of the reclassification is the difference between the amount initially charged or credited directly to other comprehensive income at the previously enacted U.S. federal corporate income tax rate that remains in accumulated other comprehensive income and the amount that would have been charged or credited directly to other comprehensive income using the newly enacted U.S. federal corporate income tax rate, excluding the effect of any valuation allowance previously charged to income from continuing operations. This standard is effective for interim and annual reporting periods beginning after December 15, 2018, and early adoption is permitted. We will adopt this standard effective January 1, 2019. The adoption of the standard may impact tax amounts stranded in accumulated other comprehensive income related to our pension and retiree medical and other postretirement benefit plans.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The risk inherent in our market risk sensitive instruments and positions is the potential loss arising from adverse changes in the price of fuel, foreign currency exchange rates and interest rates as discussed below. The sensitivity analyses presented do not consider the effects that such adverse changes may have on overall economic activity, nor do they consider additional actions we may take to mitigate our exposure to such changes. Therefore, actual results may differ. See Note 8 to AAG’s Consolidated Financial Statements in Part II, Item 8A and Note 6 to American’s Consolidated Financial Statements in Part II, Item 8B for additional discussion regarding risk management matters.

Aircraft Fuel

Our operating results are materially impacted by changes in the availability, price volatility and cost of aircraft fuel, which represents one of the largest single cost items in our business. Because of the amount of fuel needed to operate our airlines, even a relatively small increase or decrease in the price of fuel can have a material effect on our costs and liquidity. Market prices for jet fuel have fluctuated substantially over the past several years with market spot prices ranging from a low of approximately $0.80 per gallon to a high of approximately $2.35 per gallon during the period from January 1, 2016 to December 31, 2018.

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As of December 31, 2018, we did not have any fuel hedging contracts outstanding to hedge our fuel consumption. As such, and assuming we do not enter into any future transactions to hedge our fuel consumption, we will continue to be fully exposed to fluctuations in fuel prices. Our current policy is not to enter into transactions to hedge our fuel consumption, although we review that policy from time to time based on market conditions and other factors. Based on our 2019 forecasted fuel consumption, we estimate that a one cent per gallon increase in aviation fuel price would increase our 2019 annual fuel expense by $45 million.

Foreign Currency

We are exposed to the effect of foreign exchange rate fluctuations on the U.S. dollar value of foreign currency-denominated operating revenues and expenses. Our largest exposure comes from the British pound, Euro, Canadian dollar and various Latin American currencies, primarily the Brazilian real. We do not currently have a foreign currency hedge program. A uniform 10% strengthening in the value of the U.S. dollar from 2018 levels relative to each of the currencies in which we have foreign currency exposure would have resulted in a decrease in operating income of approximately $200 million for the year ended December 31, 2018.

Generally, fluctuations in foreign currencies, including devaluations, cannot be predicted by us and can significantly affect the value of our assets located outside the United States. These conditions, as well as any further delays, devaluations or imposition of more stringent repatriation restrictions, may materially adversely affect our business, results of operations and financial condition. See Part I, Item 1A. Risk Factors – “We operate a global business with international operations that are subject to economic and political instability and have been, and in the future may continue to be, adversely affected by numerous events, circumstances or government actions beyond our control” for additional discussion of this and other currency risks.

Interest

Our earnings and cash flow are affected by changes in interest rates due to the impact those changes have on our interest expense from variable rate debt instruments and our interest income from short-term, interest bearing investments.

Our largest exposure with respect to variable rate debt comes from changes in LIBOR. We had variable rate debt instruments representing approximately 40% of our total long-term debt at December 31, 2018. We currently do not have an interest rate hedge program. If annual interest rates increase 100 basis points, based on our December 31, 2018 variable-rate debt and short-term investments balances, annual interest expense on variable rate debt would increase by approximately $100 million and annual interest income on short-term investments would increase by approximately $50 million. Additionally, the fair value of fixed-rate debt would have decreased by approximately $565 million for AAG and $550 million for American.

ITEM 8A. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA OF AMERICAN AIRLINES GROUP INC.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors

American Airlines Group Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of American Airlines Group Inc. and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income, cash flows, and stockholders' equity for each of the years in the three year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three year period ended December 31, 2018, 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, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 25, 2019 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for revenue from contracts with customers and leases in 2018 due to the full retrospective adoption of Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606), as amended, and the modified retrospective adoption of ASU 2016-02, Leases (Topic 842), as amended.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated 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 consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 2014.

Dallas, Texas

February 25, 2019

AMERICAN AIRLINES GROUP INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In millions, except shares and per share amounts)

	Year Ended December 31,		
	2018	2017	2016
Operating revenues:			
Passenger	$40,676	$39,131	$37,045
Cargo	1,013	890	785
Other	2,852	2,601	2,312
Total operating revenues	44,541	42,622	40,142
Operating expenses:			
Aircraft fuel and related taxes	8,053	6,128	5,071
Salaries, wages and benefits	12,251	11,954	10,967
Regional expenses	7,133	6,546	6,044
Maintenance, materials and repairs	2,050	1,959	1,834
Other rent and landing fees	1,900	1,806	1,772
Aircraft rent	1,264	1,197	1,203
Selling expenses	1,520	1,477	1,323
Depreciation and amortization	1,839	1,702	1,525
Special items, net	787	712	709
Other	5,088	4,910	4,634
Total operating expenses	41,885	38,391	35,082
Operating income	2,656	4,231	5,060
Nonoperating income (expense):			
Interest income	118	94	63
Interest expense, net	(1,056)	(1,053)	(991)
Other income, net	166	123	20
Total nonoperating expense, net	(772)	(836)	(908)
Income before income taxes	1,884	3,395	4,152
Income tax provision	472	2,113	1,568
Net income	$1,412	$1,282	$2,584
Earnings per common share:			
Basic	$3.04	$2.62	$4.68
Diluted	$3.03	$2.61	$4.65
Weighted average shares outstanding (in thousands):			
Basic	464,236	489,164	552,308
Diluted	465,660	491,692	556,099
Cash dividends declared per common share	$0.40	$0.40	$0.40

See accompanying notes to consolidated financial statements.

AMERICAN AIRLINES GROUP INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In millions)

	Year Ended December 31,		
	2018	2017	2016
Net income	$1,412	$1,282	$2,584
Other comprehensive income (loss), net of tax:			
Pension, retiree medical and other postretirement benefits	(117)	(70)	(358)
Investments	(3)	(1)	7
Total other comprehensive loss, net of tax	(120)	(71)	(351)
Total comprehensive income	$1,292	$1,211	$2,233

See accompanying notes to consolidated financial statements.

AMERICAN AIRLINES GROUP INC.
CONSOLIDATED BALANCE SHEETS
(In millions, except shares and par value)

	December 31,	
	2018	2017
ASSETS		
Current assets		
Cash	$275	$295
Short-term investments	4,485	4,771
Restricted cash and short-term investments	154	318
Accounts receivable, net	1,706	1,752
Aircraft fuel, spare parts and supplies, net	1,522	1,359
Prepaid expenses and other	495	651
Total current assets	8,637	9,146
Operating property and equipment		
Flight equipment	41,499	40,318
Ground property and equipment	8,764	8,267
Equipment purchase deposits	1,278	1,217
Total property and equipment, at cost	51,541	49,802
Less accumulated depreciation and amortization	(17,443)	(15,646)
Total property and equipment, net	34,098	34,156
Operating lease right-of-use assets	9,151	—
Other assets		
Goodwill	4,091	4,091
Intangibles, net of accumulated amortization of $663 and $622, respectively	2,137	2,203
Deferred tax asset	1,145	1,816
Other assets	1,321	1,373
Total other assets	8,694	9,483
Total assets	$60,580	$52,785
LIABILITIES AND STOCKHOLDERS’ EQUITY (DEFICIT)		
Current liabilities		
Current maturities of long-term debt and finance leases	$3,294	$2,554
Accounts payable	1,773	1,688
Accrued salaries and wages	1,427	1,672
Air traffic liability	4,339	4,042
Loyalty program liability	3,267	3,121
Operating lease liabilities	1,654	—
Other accrued liabilities	2,342	2,281
Total current liabilities	18,096	15,358
Noncurrent liabilities		
Long-term debt and finance leases, net of current maturities	21,179	22,511
Pension and postretirement benefits	6,907	7,497
Loyalty program liability	5,272	5,701
Operating lease liabilities	7,902	—
Other liabilities	1,393	2,498
Total noncurrent liabilities	42,653	38,207
Commitments and contingencies (Note 12)		
Stockholders' equity (deficit)		

Common stock, $0.01 par value; 1,750,000,000 shares authorized, 460,610,870 shares issued and outstanding at December 31, 2018; 475,507,887 shares issued and outstanding at December 31, 2017	5	5
Additional paid-in capital	4,964	5,714
Accumulated other comprehensive loss	(5,274)	(5,154)
Retained earnings (deficit)	136	(1,345)
Total stockholders' deficit	(169)	(780)
Total liabilities and stockholders’ equity (deficit)	$60,580	$52,785

See accompanying notes to consolidated financial statements.

AMERICAN AIRLINES GROUP INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income	$1,412	$1,282	$2,584
Adjustments to reconcile net income to net cash provided by operating activities			
Depreciation and amortization	2,159	2,017	1,818
Debt discount and lease amortization	(92)	(114)	(119)
Special items, non-cash	458	272	270
Pension and postretirement	(300)	(132)	(68)
Deferred income tax provision	440	2,089	1,556
Share-based compensation	86	90	100
Other, net	(64)	(39)	(18)
Changes in operating assets and liabilities:			
Decrease (increase) in accounts receivable	222	(190)	(160)
Increase in other assets	(390)	(433)	(184)
Increase (decrease) in accounts payable and accrued liabilities	(147)	299	307
Increase in air traffic liability	297	65	158
Increase (decrease) in loyalty program liability	(283)	(308)	417
Contributions to pension plans	(475)	(286)	(32)
Increase (decrease) in other liabilities	210	132	(105)
Net cash provided by operating activities	3,533	4,744	6,524
Cash flows from investing activities:			
Capital expenditures and aircraft purchase deposits	(3,745)	(5,971)	(5,731)
Proceeds from sale of property and equipment and sale-leaseback transactions	1,207	947	125
Purchases of short-term investments	(3,412)	(4,633)	(6,241)
Sales of short-term investments	3,705	5,915	6,092
Proceeds from sale of investments	207	—	—
Decrease in restricted short-term investments	72	309	53
Purchase of equity investment	—	(203)	—
Other investing activities	(7)	—	—
Net cash used in investing activities	(1,973)	(3,636)	(5,702)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt	2,354	3,058	7,701
Payments on long-term debt and finance leases	(2,941)	(2,332)	(3,827)
Deferred financing costs	(59)	(85)	(77)
Treasury stock repurchases	(837)	(1,615)	(4,500)
Dividend payments	(186)	(198)	(224)
Other financing activities	(3)	27	33
Net cash used in financing activities	(1,672)	(1,145)	(894)
Net decrease in cash and restricted cash	(112)	(37)	(72)
Cash and restricted cash at beginning of year	398	435	507
Cash and restricted cash at end of year [(a)]	$286	$398	$435

[(a)] The following table provides a reconciliation of cash and restricted cash to amounts reported within the consolidated balance sheets:

Cash	$275	$295	$322
Restricted cash included in restricted cash and short-term investments	11	103	113
Total cash and restricted cash	$286	$398	$435

See accompanying notes to consolidated financial statements.

AMERICAN AIRLINES GROUP INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In millions, except share amounts)

	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Retained Earnings (Deficit)	Total
Balance at December 31, 2015	$ 6	$ 11,591	$ (4,732)	$ (1,230)	$ 5,635
Net income	—	—	—	2,584	2,584
Other comprehensive loss	—	—	(351)	—	(351)
Cash tax withholding on shares issued	—	(56)	—	—	(56)
Purchase and retirement of 119,823,621 shares of AAG common stock	(1)	(4,415)	—	—	(4,416)
Dividends declared on AAG common stock ($0.40 per share)	—	—	—	(224)	(224)
Issuance of 2,506,067 shares of AAG common stock pursuant to employee stock plans	—	—	—	—	—
Settlement of single-dip unsecured claims held in distributed claims reserve	—	3	—	—	3
Share-based compensation expense	—	100	—	—	100
Impact of adoption of Accounting Standards Update (ASU) 2016-09 related to share-based compensation	—	—	—	418	418
Impact of adoption of ASU 2014-09 related to revenue recognition (See Note 1(b))	—	—	—	(3,977)	(3,977)
Balance at December 31, 2016	5	7,223	(5,083)	(2,429)	(284)
Net income	—	—	—	1,282	1,282
Other comprehensive loss	—	—	(71)	—	(71)
Cash tax withholding on shares issued	—	(51)	—	—	(51)
Purchase and retirement of 33,953,127 shares of AAG common stock	—	(1,563)	—	—	(1,563)
Dividends declared on AAG common stock ($0.40 per share)	—	—	—	(198)	(198)
Issuance of 2,166,861 shares of AAG common stock pursuant to employee stock plans	—	—	—	—	—
Settlement of single-dip unsecured claims held in distributed claims reserve	—	15	—	—	15
Share-based compensation expense	—	90	—	—	90
Balance at December 31, 2017	5	5,714	(5,154)	(1,345)	(780)
Net income	—	—	—	1,412	1,412
Other comprehensive loss	—	—	(120)	—	(120)
Cash tax withholding on shares issued	—	(37)	—	—	(37)
Purchase and retirement of 16,606,157 shares of AAG common stock	—	(799)	—	—	(799)
Dividends declared on AAG common stock ($0.40 per share)	—	—	—	(188)	(188)
Issuance of 1,709,140 shares of AAG common stock pursuant to employee stock plans	—	—	—	—	—
Share-based compensation expense	—	86	—	—	86
Impact of adoption of ASU 2016-01 related to financial instruments (See Note 1(b))	—	—	—	60	60
Impact of adoption of ASU 2016-02 related to leases (See Note 1(b))	—	—	—	197	197

Balance at December 31, 2018	$ 5	$4,964	$ (5,274)	$136	$(169)

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

1. Basis of Presentation and Summary of Significant Accounting Policies

(a) Basis of Presentation

American Airlines Group Inc. (we, us, our and similar terms, or AAG), a Delaware corporation, is a holding company whose primary business activity is the operation of a major network air carrier, providing scheduled air transportation for passengers and cargo through its mainline operating subsidiary, American Airlines, Inc. (American) and its wholly-owned regional airline subsidiaries, Envoy Aviation Group Inc. (Envoy), PSA Airlines, Inc. (PSA) and Piedmont Airlines, Inc. (Piedmont) that operate under the brand American Eagle. On December 9, 2013, a subsidiary of AMR Corporation (AMR) merged with and into US Airways Group, Inc. (US Airways Group), a Delaware corporation, which survived as a wholly-owned subsidiary of AAG, and AAG emerged from Chapter 11 (the Merger). Upon closing of the Merger and emergence from Chapter 11, AMR changed its name to American Airlines Group Inc. All significant intercompany transactions have been eliminated.

The preparation of financial statements in accordance with accounting principles generally accepted in the United States (GAAP) requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates. The most significant areas of judgment relate to passenger revenue recognition, impairment of goodwill, impairment of long-lived and intangible assets, the loyalty program, as well as pension and retiree medical and other postretirement benefits.

(b) Recent Accounting Pronouncements

Standards Adopted in 2018

Effective January 1, 2018, we adopted the accounting pronouncements described below.

ASU 2014-09: Revenue from Contracts with Customers (Topic 606) (the New Revenue Standard)

The New Revenue Standard applies to all companies that enter into contracts with customers to transfer goods or services. We adopted the New Revenue Standard using the full retrospective method, which resulted in the recast of prior reporting periods.

The adoption of the New Revenue Standard impacted our accounting for outstanding mileage credits earned through travel by AAdvantage loyalty program members. There was no change in accounting for sales of mileage credits to co-branded credit card or other partners. Prior to the adoption of the New Revenue Standard, we used the incremental cost method to account for the portion of our loyalty program liability related to mileage credits earned through travel, which were valued based on the estimated incremental cost of carrying one additional passenger. The New Revenue Standard required us to change our policy to the deferred revenue method and apply a relative selling price approach whereby a portion of each passenger ticket sale attributable to mileage credits earned is deferred and recognized in passenger revenue upon future mileage redemption. The value of the earned mileage credits is materially greater under the deferred revenue method than the value attributed to these mileage credits under the incremental cost method.

The New Revenue Standard also required certain reclassifications, principally the reclassification of certain ancillary revenues previously classified and reported as other revenue to passenger revenue and as applicable to cargo revenue. Additionally, the New Revenue Standard required a gross presentation on the face of our consolidated statements of operations for certain revenues and expenses that had previously been presented on a net basis.

See “Impacts to 2017 Results” and “Impacts to 2016 Results” below for the impact to our consolidated statements of operations data for 2017 and 2016, respectively, and our consolidated balance sheet as of December 31, 2017 related to the adoption of the New Revenue Standard.

ASU 2017-07: Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost (the New Retirement Standard)

The New Retirement Standard required all components of our net periodic benefit cost (income), with the exception of service cost, previously reported within operating expenses as salaries, wages and benefits, to be reclassified and reported within nonoperating income (expense). The New Retirement Standard was applied retrospectively, which resulted in the recast of each prior reporting period presented. The adoption of the New Retirement Standard had no impact on pre-tax income or net income reported.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

See “Impacts to 2017 Results” and “Impacts to 2016 Results” below for the impact to our consolidated statements of operations data for 2017 and 2016, respectively, related to the adoption of the New Retirement Standard.

ASU 2016-02: Leases (Topic 842) (the New Lease Standard)

The New Lease Standard requires lessees to recognize a lease liability and a right-of-use (ROU) asset on the balance sheet for operating leases. Accounting for finance leases is substantially unchanged. The New Lease Standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted.

In the fourth quarter of 2018, we elected to early adopt the New Lease Standard as of January 1, 2018 using a modified retrospective transition, with the cumulative-effect adjustment to the opening balance of retained earnings as of the effective date (the effective date method). Under the effective date method, financial results reported in periods prior to 2018 are unchanged. We also elected the package of practical expedients, which among other things, does not require reassessment of lease classification.

The adoption of the New Lease Standard had a significant impact on our consolidated balance sheet due to the recognition of approximately $10 billion of lease liabilities with corresponding right-of-use assets for operating leases. Additionally, we recognized a $197 million cumulative effect adjustment credit, net of tax, to retained earnings. The adjustment to retained earnings was driven principally by sale-leaseback transactions including the recognition of unamortized deferred aircraft sale-leaseback gains. Prior to the adoption of the New Lease Standard, gains on sale-leaseback transactions were generally deferred and recognized in the income statement over the lease term. Under the New Lease Standard, gains on sale-leaseback transactions (subject to adjustment for off-market terms) are recognized immediately.

ASU 2016-01: Financial Instruments - Overall (Subtopic 825-10)

This ASU made several modifications to Subtopic 825-10, including the elimination of the available-for-sale classification of equity investments, and it required equity investments with readily determinable fair values to be measured at fair value with changes in fair value recognized in net income. This standard was adopted prospectively as of January 1, 2018 and resulted in a $60 million cumulative effect adjustment credit to retained earnings, net of tax, related to our investment in China Southern Airlines Company Limited (China Southern Airlines), which was previously accounted for under the cost method.

ASU 2016-18: Statement of Cash Flows (Topic 230): Restricted Cash

This ASU required that the change in the total cash balance, cash at the beginning of the period and cash at the end of the period on the statement of cash flows include restricted cash, and also required companies that report cash and restricted cash separately on the balance sheet to reconcile those amounts to the statement of cash flows. This standard was applied retrospectively, which resulted in the recast of prior reporting periods in the statement of cash flows. For the years ended December 31, 2018, 2017 and 2016, $11 million, $103 million and $113 million, respectively, of restricted cash is included in the total cash and restricted cash balance at the end of the period. A reconciliation of cash and restricted cash reported on our consolidated statements of cash flows to the amounts reported on our consolidated balance sheets is provided in a table below the Consolidated Statements of Cash Flows.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

Impacts to 2017 Results

The effects of the adoption of the New Revenue Standard and New Retirement Standard to our consolidated statement of operations for the twelve months ended December 31, 2017 were as follows (in millions):

		New Revenue Standard			New Retirement Standard	
Year Ended December 31, 2017	As Reported	Deferred Revenue Method	Ancillary Revenue Reclassifications	Gross Versus Net Presentation	Reclassifications	As Recast
Operating revenues:						
Passenger	$36,133	$311	$ 2,648	$ 39	$ —	$39,131
Cargo	800	—	42	48	—	890
Other	5,274	—	(2,690)	17	—	2,601
Total operating revenues	42,207	311	—	104	—	42,622
Total operating expenses	38,149	—	—	104	138	38,391
Operating income	4,058	311	—	—	(138)	4,231
Total nonoperating expense, net	(974)	—	—	—	138	(836)
Income before income taxes	3,084	311	—	—	—	3,395
Income tax provision [1]	1,165	948	—	—	—	2,113
Net income	$1,919	$(637)	$ —	$ —	$ —	$1,282
Diluted earnings per common share	$3.90					$2.61

[1] The adjustment to the 2017 income tax provision includes an $823 million special charge to reduce our deferred tax asset associated with loyalty program liabilities as a result of H.R. 1, the 2017 Tax Cuts and Jobs Act (the 2017 Tax Act), enacted in December 2017 that reduced the federal corporate income tax rate from 35% to 21%.

The effects of the adoption of the New Revenue Standard to our December 31, 2017 consolidated balance sheet were as follows (in millions):

	As Reported	New Revenue Standard	As Recast
Deferred tax asset	$ 427	$1,389	$1,816
Air traffic liability	3,978	64	4,042
Current loyalty program liability	2,791	330	3,121
Noncurrent loyalty program liability	—	5,701	5,701
Total stockholders' equity (deficit)	3,926	(4,706)	(780)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

Impacts to 2016 Results

The effects of the adoption of the New Revenue Standard and New Retirement Standard to our consolidated statement of operations for the twelve months ended December 31, 2016 were as follows (in millions):

		New Revenue Standard			New Retirement Standard	
Year Ended December 31, 2016	As Reported	Deferred Revenue Method	Ancillary Revenue Reclassifications	Gross Versus Net Presentation	Reclassifications	As Recast
Operating revenues:						
Passenger	$34,579	$(147)	$ 2,571	$ 42	$ —	$37,045
Cargo	700	—	36	49	—	785
Other	4,901	—	(2,607)	18	—	2,312
Total operating revenues	40,180	(147)	—	109	—	40,142
Total operating expenses	34,896	—	—	109	77	35,082
Operating income	5,284	(147)	—	—	(77)	5,060
Total nonoperating expense, net	(985)	—	—	—	77	(908)
Income before income taxes	4,299	(147)	—	—	—	4,152
Income tax provision	1,623	(55)	—	—	—	1,568
Net income	$2,676	$(92)	$ —	$ —	$ —	$2,584
Diluted earnings per common share	$4.81					$4.65

Standards Effective for 2019 Reporting Periods

ASU 2018-02: Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income

This ASU provides financial statement preparers with an option to reclassify stranded tax effects within accumulated other comprehensive income to retained earnings due to the U.S. federal corporate income tax rate change as a result of the 2017 Tax Act. The amount of the reclassification is the difference between the amount initially charged or credited directly to other comprehensive income at the previously enacted U.S. federal corporate income tax rate that remains in accumulated other comprehensive income and the amount that would have been charged or credited directly to other comprehensive income using the newly enacted U.S. federal corporate income tax rate, excluding the effect of any valuation allowance previously charged to income from continuing operations. This standard is effective for interim and annual reporting periods beginning after December 15, 2018, and early adoption is permitted. We will adopt this standard effective January 1, 2019. The adoption of the standard may impact tax amounts stranded in accumulated other comprehensive income related to our pension and retiree medical and other postretirement benefit plans.

(c) Short-term Investments

Short-term investments are classified as available-for-sale and stated at fair value. Realized gains and losses are recorded in nonoperating expense on our consolidated statements of operations. Unrealized gains and losses are recorded in accumulated other comprehensive loss on our consolidated balance sheets.

(d) Restricted Cash and Short-term Investments

We have restricted cash and short-term investments related primarily to collateral held to support workers' compensation obligations.

(e) Aircraft Fuel, Spare Parts and Supplies, Net

Aircraft fuel is recorded on a first-in, first-out basis. Spare parts and supplies are recorded at average costs less an allowance for obsolescence. These items are expensed when used.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

(f) Operating Property and Equipment

Operating property and equipment is recorded at cost and depreciated or amortized to residual values over the asset's estimated useful life or the lease term, whichever is less, using the straight-line method. Residual values for aircraft, engines and related rotable parts are generally 5% to 10% of original cost. Costs of major improvements that enhance the usefulness of the asset are capitalized and depreciated or amortized over the estimated useful life of the asset or the lease term, whichever is less. The estimated useful lives for the principal property and equipment classifications are as follows:

Principal Property and Equipment Classification	Estimated Useful Life
Aircraft, engines and related rotable parts	20 – 30 years
Buildings and improvements	5 – 30 years
Furniture, fixtures and other equipment	3 – 10 years
Capitalized software	5 – 10 years

We assess impairment on operating property and equipment when events and circumstances indicate that the assets may be impaired. An asset or group of assets is considered impaired when the undiscounted cash flows estimated to be generated by the assets are less than the carrying amount of the assets and the net book value of the assets exceeds their estimated fair value. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less the cost to sell.

Total depreciation and amortization expense was $2.4 billion, $2.2 billion and $1.9 billion for the years ended December 31, 2018, 2017 and 2016, respectively.

(g) Leases

We determine if an arrangement is a lease at inception. Operating leases are included in operating lease ROU assets, current operating lease liabilities and noncurrent operating lease liabilities in our consolidated balance sheet. Finance leases are included in property and equipment, current maturities of long-term debt and finance leases and long-term debt and finance leases, net of current maturities, in our consolidated balance sheet.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. ROU assets and liabilities are recognized at the lease commencement date based on the estimated present value of lease payments over the lease term.

We use our estimated incremental borrowing rate, which is derived from information available at the lease commencement date, in determining the present value of lease payments. We give consideration to our recent debt issuances as well as publicly available data for instruments with similar characteristics when calculating our incremental borrowing rates.

Our lease term includes options to extend the lease when it is reasonably certain that we will exercise that option. Leases with a term of 12 months or less are not recorded on the balance sheet. Our lease agreements do not contain any residual value guarantees.

Under certain of our capacity purchase agreements with third-party regional carriers, we do not own the underlying aircraft. However, since we control the marketing, scheduling, ticketing, pricing and seat inventories of these aircraft and therefore control the asset, the aircraft is deemed to be leased for accounting purposes. For these capacity purchase agreements, we account for the lease and non-lease components separately. The lease component consists of the aircraft and the non-lease components consist of services, such as the crew and maintenance. We allocate the consideration in the capacity purchase agreements to the lease and non-lease components using their estimated relative standalone prices. See Note 12(b) for additional information on our capacity purchase agreements.

For real estate, we account for the lease and non-lease components as a single lease component.

(h) Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of

existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are recorded net as noncurrent deferred income taxes.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

We provide a valuation allowance for our deferred tax assets when it is more likely than not that some portion, or all of our deferred tax assets, will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income. We consider all available positive and negative evidence and make certain assumptions in evaluating the realizability of our deferred tax assets. Many factors are considered that impact our assessment of future profitability, including conditions which are beyond our control, such as the health of the economy, the level and volatility of fuel prices and travel demand.

(i) Goodwill

Goodwill represents the excess of the purchase price over the fair value of the net assets acquired and liabilities assumed. Goodwill is not amortized but assessed for impairment annually on October 1st or more frequently if events or circumstances indicate that goodwill may be impaired. We have one consolidated reporting unit.

Goodwill is assessed for impairment by initially performing a qualitative assessment and, if necessary, then comparing the fair value of the reporting unit to its carrying value, including goodwill. If the fair value of the reporting unit is less than the carrying value, a second step is performed to determine the implied fair value of goodwill. If the implied fair value of goodwill is lower than its carrying value, an impairment charge equal to the difference is recorded. Based upon our annual assessment, there was no goodwill impairment in 2018. The carrying value of the goodwill on our consolidated balance sheets was $4.1 billion as of December 31, 2018 and 2017.

(j) Other Intangibles, Net

Intangible assets consist primarily of domestic airport slots, customer relationships, marketing agreements, international slots and route authorities, airport gate leasehold rights and tradenames.

Finite-Lived Intangible Assets

Finite-lived intangible assets are amortized over their respective estimated useful lives and reviewed for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

The following table provides information relating to our amortizable intangible assets as of December 31, 2018 and 2017 (in millions):

	December 31,	
	2018	2017
Domestic airport slots	$365	$365
Customer relationships	300	300
Marketing agreements	105	105
Tradenames	35	35
Airport gate leasehold rights	137	137
Accumulated amortization	(663)	(622)
Total	$279	$320

Certain domestic airport slots and airport gate leasehold rights are amortized on a straight-line basis over 25 years. The customer relationships and marketing agreements were identified as intangible assets subject to amortization and are amortized on a straight-line basis over approximately nine years and 30 years, respectively. Tradenames are fully amortized.

We recorded amortization expense related to these intangible assets of $41 million, $44 million and $76 million for the years ended December 31, 2018, 2017 and 2016, respectively. We expect to record annual amortization expense for these intangible assets as follows (in millions):

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

2019	$41
2020	41
2021	41
2022	41
2023	7
2024 and thereafter	108
Total	$279

Indefinite-Lived Intangible Assets

Indefinite-lived intangible assets include certain domestic airport slots at our hubs and international slots and route authorities. Indefinite-lived intangible assets are not amortized but instead are assessed for impairment annually on October 1st or more frequently if events or circumstances indicate that the asset may be impaired. For both periods as of December 31, 2018 and 2017, we had $1.9 billion of indefinite-lived intangible assets on our consolidated balance sheets.

In the second quarter of 2018, we recorded a $26 million impairment charge on a Brazil route authority as a result of the U.S.-Brazil open skies agreement, which is included within special items, net on our consolidated statement of operations.

Indefinite-lived intangible assets are assessed for impairment by initially performing a qualitative assessment to determine whether we believe it is more likely than not that an asset has been impaired. If we believe impairment has occurred, we then evaluate for impairment by comparing the estimated fair value of assets to the carrying value. An impairment charge is recognized if the asset's estimated fair value is less than its carrying value. Based upon our annual assessment, there were no additional indefinite-lived intangible asset impairments in 2018 other than the Brazil route authority described above.

(k) Revenue Recognition

Revenue

Effective January 1, 2018, we adopted the New Revenue Standard using the full retrospective method, which resulted in the recast of prior reporting periods. Refer to "Recent Accounting Pronouncements" in Note 1(b) for the effects of the adoption on our consolidated statements of operations for the years ended December 31, 2017 and 2016 and on our consolidated balance sheet as of December 31, 2017. Under the New Revenue Standard, revenue is recognized upon the transfer of control of promised products or services to our customers in an amount that reflects the consideration we expect to receive in exchange for those products or services.

The following are the significant categories comprising our reported operating revenues (in millions):

	2018	2017	2016
Passenger revenue:			
Passenger travel	$37,457	$36,152	$34,278
Loyalty revenue - travel [1]	3,219	2,979	2,767
Total passenger revenue	40,676	39,131	37,045
Cargo	1,013	890	785
Other:			
Loyalty revenue - marketing services	2,352	2,124	1,872
Other revenue	500	477	440
Total other revenue	2,852	2,601	2,312
Total operating revenues	$44,541	$42,622	$40,142

(1) Loyalty revenue included in passenger revenue is principally comprised of mileage credit redemptions earned through travel and mileage credits sold to co-branded credit card and other partners. See "Loyalty Revenue" below for further discussion on these mileage credits.

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The following is our total passenger revenue by geographic region (in millions):

	2018	2017	2016
Domestic	$29,573	$28,749	$27,202
Latin America	5,125	4,840	4,676
Atlantic	4,376	4,028	3,873
Pacific	1,602	1,514	1,294
Total passenger revenue	$40,676	$39,131	$37,045

We attribute passenger revenue by geographic region based upon the origin and destination of each flight segment.

Passenger Revenue

We recognize all revenues generated from transportation on American and our regional flights operated under the brand name American Eagle, including associated baggage fees, ticketing change fees and other inflight services, as passenger revenue when transportation is provided. Ticket and other related sales for transportation that has not yet been provided are initially deferred and recorded as air traffic liability on our consolidated balance sheets. The air traffic liability principally represents tickets sold for future travel on American and partner airlines, as well as estimated future refunds and exchanges of tickets sold for past travel.

The majority of tickets sold are nonrefundable. A small percentage of tickets, some of which are partially used tickets, expire unused. Due to complex pricing structures, refund and exchange policies, and interline agreements with other airlines, certain amounts are recognized in passenger revenue using estimates regarding both the timing of the revenue recognition and the amount of revenue to be recognized. These estimates are generally based on the analysis of our historical data. We have consistently applied this accounting method to estimate revenue from forfeited tickets at the date of travel. Estimated future refunds and exchanges included in the air traffic liability are routinely evaluated based on subsequent activity to validate the accuracy of our estimates. Any adjustments resulting from periodic evaluations of the estimated air traffic liability are included in passenger revenue during the period in which the evaluations are completed.

Various taxes and fees assessed on the sale of tickets to end customers are collected by us as an agent and remitted to taxing authorities. These taxes and fees have been presented on a net basis in the accompanying consolidated statements of operations and recorded as a liability until remitted to the appropriate taxing authority.

Loyalty Revenue

We currently operate the loyalty program, AAdvantage. This program awards mileage credits to passengers who fly on American, any oneworld airline or other partner airlines, or by using the services of other program participants, such as the Citi and Barclaycard US co-branded credit cards, hotels and car rental companies. Mileage credits can be redeemed for travel on American and other participating partner airlines, as well as other non-air travel awards such as hotels and rental cars. For mileage credits earned by AAdvantage loyalty program members, we apply the deferred revenue method in accordance with the New Revenue Standard.

Mileage credits earned through travel

For mileage credits earned through travel, we apply a relative selling price approach whereby the total amount collected from each passenger ticket sale is allocated between the air transportation and the mileage credits earned. The portion of each passenger ticket sale attributable to mileage credits earned is initially deferred and then recognized in passenger revenue when mileage credits are redeemed and transportation is provided. The estimated selling price of mileage credits is determined using an equivalent ticket value approach, which uses historical data, including award redemption patterns by geographic region and class of service, as well as similar fares as those used to settle award redemptions. The estimated selling price of miles is adjusted for an estimate of miles that will not be redeemed based on historical redemption patterns.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

Mileage credits sold to co-branded credit cards and other partners

We sell mileage credits to participating airline partners and non-airline business partners including our co-branded credit card partners, under contracts with terms extending generally for one to nine years. Consideration received from the sale of mileage credits is variable and payment terms typically are within 30 days subsequent to the month of mileage sale. Sales of mileage credits to non-airline business partners are comprised of two components, transportation and marketing. We allocate the consideration received from these sales of mileage credits based on the relative selling price of each product or service delivered.

Our most significant partner agreements are our co-branded credit card agreements with Citi and Barclaycard US that we entered into in 2016. We identified the following revenue elements in these co-branded credit card agreements: the transportation component; and the use of intellectual property, including the American brand and access to loyalty program member lists, which is the predominant element in the agreements, as well as advertising (collectively, the marketing component). Accordingly, we recognize the marketing component in other revenue in the period of the mileage sale following the sales-based royalty method.

The transportation component represents the estimated selling price of future travel awards and is determined using the same equivalent ticket value approach described above. The portion of each mileage credit sold attributable to transportation is initially deferred and then recognized in passenger revenue when mileage credits are redeemed and transportation is provided.

For the portion of our outstanding mileage credits that we estimate will not be redeemed, we recognize the associated value proportionally as the remaining mileage credits are redeemed. Our estimates are based on analysis of historical redemptions.

Cargo Revenue

Cargo revenue is recognized when we provide the transportation.

Other Revenue

Other revenue includes revenue associated with our loyalty program, which is comprised principally of the marketing component of mileage sales to co-branded credit card and other partners and other marketing related payments. For the years ended December 31, 2018, 2017 and 2016, loyalty revenue included in other revenue was $2.4 billion, $2.1 billion and $1.9 billion, respectively. The accounting and recognition for the loyalty program marketing services are discussed above in “Loyalty Revenue.” The remaining amounts included within other revenue relate to airport clubs, advertising and vacation-related services.

Contract Balances

Our significant contract liabilities are comprised of (1) outstanding loyalty program mileage credits that may be redeemed for future travel and other non-air travel awards, reported as loyalty program liability on our consolidated balance sheet and (2) ticket sales for transportation that has not yet been provided, reported as air traffic liability on our consolidated balance sheet.

	December 31, 2018	December 31, 2017
	(in millions)	
Loyalty program liability	$8,539	$ 8,822
Air traffic liability	4,339	4,042
Total	$12,878	$ 12,864

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

The balance of the loyalty program liability fluctuates based on seasonal patterns, which impact the volume of mileage credits issued through travel or sold to co-branded credit card and other partners (deferral of revenue) and mileage credits redeemed (recognition of revenue). Changes in loyalty program liability are as follows (in millions):

Balance at December 31, 2017	$8,822
Deferral of revenue	3,083
Recognition of revenue [1]	(3,366)
Balance at December 31, 2018 [2]	$8,539

(1) Principally relates to revenue recognized from the redemption of mileage credits for both air and non-air travel awards. Mileage credits are combined in one homogenous 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.

(2) Mileage credits can be redeemed at any time and do not expire as long as that AAdvantage member has any type of qualifying activity at least every 18 months. As of December 31, 2018, our current loyalty program liability was $3.3 billion and represents our current estimate of revenue expected to be recognized in the next twelve months based on historical trends, with the balance reflected in long-term loyalty program liability expected to be recognized as revenue in periods thereafter.

The air traffic liability principally represents tickets sold for future travel on American and partner airlines, as well as estimated future refunds and exchanges of tickets sold for past travel. The balance in our air traffic liability also fluctuates with seasonal travel patterns. The contract duration of passenger tickets is one year. Accordingly, any revenue associated with tickets sold for future travel will be recognized within twelve months. For 2018, $3.1 billion of revenue was recognized in passenger revenue that was included in our air traffic liability at December 31, 2017.

With respect to contract receivables, reflected as accounts receivable, net on the accompanying consolidated balance sheet, these primarily include receivables for tickets sold to individual passengers through the use of major credit cards. These receivables are short-term, mostly settled within seven days after sale. Bad debt losses, which have been minimal in the past, have been considered in establishing allowances for doubtful accounts.

(l) Maintenance, Materials and Repairs

Maintenance and repair costs for owned and leased flight equipment are charged to operating expense as incurred, except costs incurred for maintenance and repair under flight hour maintenance contract agreements, which are accrued based on contractual terms when an obligation exists.

(m) Selling Expenses

Selling expenses include credit card fees, commissions, computerized reservations systems fees and advertising. Advertising costs are expensed as incurred. Advertising expense was $128 million, $135 million and $116 million for the years ended December 31, 2018, 2017 and 2016, respectively.

(n) Share-based Compensation

We account for our share-based compensation expense based on the fair value of the stock award at the time of grant, which is recognized ratably over the vesting period of the stock award. Certain awards have performance conditions that must be achieved prior to vesting and are expensed based on the expected achievement at each reporting period. The fair value of stock appreciation rights is estimated using a Black-Scholes option pricing model. The fair value of restricted stock units is based on the market price of the underlying shares of AAG common stock on the date of grant. See Note 15 for further discussion of share-based compensation.

(o) Foreign Currency Gains and Losses

Foreign currency gains and losses are recorded as part of other income, net within total nonoperating expense, net in our consolidated statements of operations. Foreign currency losses for 2018 and 2017 were $55 million and $4 million, respectively, and for 2016, foreign currency gains were $1 million.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

(p) Other Operating Expenses

Other operating expenses includes costs associated with ground and cargo handling, crew travel, aircraft food and catering, passenger accommodation, airport security, international navigation fees and certain general and administrative expenses.

(q) Regional Expenses

Expenses associated with American Eagle operations are classified as regional expenses on our consolidated statements of operations. Regional expenses consist of the following (in millions):

	Year Ended December 31,		
	2018	2017	2016
Aircraft fuel and related taxes	$1,843	$1,382	$1,109
Salaries, wages and benefits	1,591	1,452	1,333
Capacity purchases from third-party regional carriers [1]	1,431	1,581	1,538
Maintenance, materials and repairs	340	281	345
Other rent and landing fees	610	625	564
Aircraft rent	32	35	36
Selling expenses	369	361	347
Depreciation and amortization	318	315	301
Special items, net	6	22	14
Other	593	492	457
Total regional expenses	$7,133	$6,546	$6,044

(1) In 2018, we recognized $565 million of expense under our capacity purchase agreement with Republic Airline Inc. (Republic). We hold a 25% equity interest in Republic Airways Holdings Inc. (Republic Holdings), the parent company of Republic.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

2. Special Items, Net

Special items, net on our consolidated statements of operations consisted of the following (in millions):

	Year Ended December 31,		
	2018	2017	2016
Fleet restructuring expenses [1]	$ 422	$ 232	$ 177
Merger integration expenses [2]	268	273	514
Severance expenses [3]	58	—	—
Litigation settlement [4]	45	—	—
Intangible asset impairment [5]	26	—	—
Labor contract expenses	13	46	—
Mark-to-market adjustments on bankruptcy obligations, net [6]	(76)	27	25
Employee 2017 Tax Act bonus expense [7]	—	123	—
Other operating charges (credits), net	31	11	(7)
Mainline operating special items, net	787	712	709
Regional operating special items, net	6	22	14
Operating special items, net	793	734	723
Mark-to-market adjustments on equity investments, net [8]	104	—	—
Debt refinancing and extinguishment charges	13	22	49
Other nonoperating credits, net	(4)	—	—
Nonoperating special items, net	113	22	49
Income tax special items [9]	18	—	—
Impact of the 2017 Tax Act [10]	—	823	—
Income tax special items, net	18	823	—

(1) Fleet restructuring expenses principally included accelerated depreciation and rent expense for aircraft and related equipment grounded or expected to be grounded earlier than planned.

(2) Merger integration expenses included costs associated with integration projects, principally our flight attendant, human resources and payroll, and technical operations systems.

(3) Severance expenses primarily included costs associated with reductions of management and support staff team members.

(4) Settlement of a private party antitrust lawsuit. See Note 12(e) - “Private Party Antitrust Action Related to Passenger Capacity” for further discussion.

(5) Intangible asset impairment includes a non-cash charge to write-off our Brazil route authority as a result of the U.S.-Brazil open skies agreement.

(6) Bankruptcy obligations that will be settled in shares of our common stock are marked-to-market based on our stock price.

(7) Employee bonus expense included costs related to the $1,000 cash bonus and associated payroll taxes granted to mainline employees as of December 31, 2017 in recognition of the 2017 Tax Act.

(8) Mark-to-market adjustments on equity investments relate to net unrealized losses primarily associated with our equity investments in China Southern Airlines and Mesa Air Group, Inc.

(9) Income tax special items for 2018 included an $18 million charge related to an international income tax matter.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

(10) Impact of the 2017 Tax Act includes an $823 million non-cash charge to income tax expense to reflect the impact of lower corporate income tax rates on our deferred tax asset and liabilities resulting from the 2017 Tax Act, which reduced the federal corporate income tax rate from 35% to 21%.

3. Earnings Per Common Share

The following table sets forth the computation of basic and diluted earnings per common share (EPS) (in millions, except share and per share amounts):

	Year Ended December 31,		
	2018	2017	2016
Basic EPS:			
Net income	$1,412	$1,282	$2,584
Weighted average common shares outstanding (in thousands)	464,236	489,164	552,308
Basic EPS	$3.04	$2.62	$4.68
Diluted EPS:			
Net income for purposes of computing diluted EPS	$1,412	$1,282	$2,584
Share computation for diluted EPS (in thousands):			
Basic weighted average common shares outstanding	464,236	489,164	552,308
Dilutive effect of stock awards	1,424	2,528	3,791
Diluted weighted average common shares outstanding	465,660	491,692	556,099
Diluted EPS	$3.03	$2.61	$4.65
Restricted stock unit awards excluded from the calculation of diluted EPS because inclusion would be antidilutive (in thousands)	1,266	328	1,429

4. Share Repurchase Programs and Dividends

In April 2018, we announced that our Board of Directors authorized a new $2.0 billion share repurchase program that expires on December 31, 2020. Since July 2014, our Board of Directors has approved seven share repurchase programs aggregating $13.0 billion of authority. As of December 31, 2018, there was $1.7 billion remaining authority to repurchase shares under our new $2.0 billion share repurchase program. Share repurchases under our repurchase programs may be made through a variety of methods, which may include open market purchases, privately negotiated transactions, block trades or accelerated share repurchase transactions. Any such repurchases that may be made from time to time will be subject to market and economic conditions, applicable legal requirements and other relevant factors. We are not obligated to repurchase any specific number of shares and our repurchase of AAG common stock may be limited, suspended or discontinued at any time at our discretion and without prior notice.

In 2018, we repurchased 16.6 million shares of AAG common stock for $800 million at a weighted average cost per share of $48.15. In 2017, we repurchased 33.9 million shares of AAG common stock for $1.6 billion at a weighted average cost per share of $45.68. In 2016, we repurchased 119.8 million shares of AAG common stock for $4.4 billion at a weighted average cost per share of $36.86. Since the inception of our share repurchase programs in July 2014 through December 31, 2018, we have repurchased 278.9 million shares of AAG common stock for $11.3 billion at a weighted average cost per share of $40.69.

Our Board of Directors declared quarterly cash dividends of $0.10 per share totaling $186 million, $198 million and $224 million for 2018, 2017 and 2016, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

5. Debt

Long-term debt included in the consolidated balance sheets consisted of (in millions):

	December 31,	
	2018	2017
Secured		
2013 Credit Facilities, variable interest rate of 4.26%, installments through 2025 [a]	$1,825	$1,825
2014 Credit Facilities, variable interest rate of 4.39%, installments through 2021 [a]	1,215	728
April 2016 Credit Facilities, variable interest rate of 4.52%, installments through 2023 [a]	980	990
December 2016 Credit Facilities, variable interest rate of 4.46%, installments through 2023 [a]	1,225	1,238
Aircraft enhanced equipment trust certificates (EETCs), fixed interest rates ranging from 3.00% to 9.01%, averaging 4.21%, maturing from 2019 to 2029 [b]	11,648	11,881
Equipment loans and other notes payable, fixed and variable interest rates ranging from 2.34% to 8.48%, averaging 4.26%, maturing from 2019 to 2030 [c]	5,060	5,259
Special facility revenue bonds, fixed interest rates ranging from 5.00% to 8.00%, maturing from 2019 to 2031	798	857
Other secured obligations	—	2
	22,751	22,780
Unsecured		
5.50% senior notes, interest only payments until due in 2019 [d]	750	750
4.625% senior notes, interest only payments until due in 2020 [d]	500	500
6.125% senior notes	—	500
	1,250	1,750
Total long-term debt	24,001	24,530
Less: Total unamortized debt discount, premium and issuance costs	222	236
Less: Current maturities	3,213	2,476
Long-term debt, net of current maturities	$20,566	$21,818

The table below shows the maximum availability under revolving credit facilities, all of which were undrawn, as of December 31, 2018 (in millions):

2013 Revolving Facility	$1,000
2014 Revolving Facility	1,543
April 2016 Revolving Facility	300
Total	$2,843

Secured financings are collateralized by assets, primarily aircraft, engines, simulators, aircraft spare parts, airport gate leasehold rights, route authorities, airport slots and pre-delivery payments.

At December 31, 2018, the maturities of long-term debt are as follows (in millions):

2019	$3,258
2020	2,320
2021	3,411
2022	1,346
2023	3,894
2024 and thereafter	9,772
Total	$24,001

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

(a) 2013, 2014, April 2016 and December 2016 Credit Facilities

2013 Credit Facilities

In May 2018, American and AAG entered into a Fourth Amendment (the Fourth Amendment to the 2013 Credit Agreement) to the Amended and Restated Credit and Guaranty Agreement, amending the Amended and Restated Credit and Guaranty Agreement dated as of May 21, 2015, which amended and restated the Credit and Guaranty Agreement dated as of June 27, 2013 (as previously amended, the 2013 Credit Agreement, the revolving facility established thereunder, the 2013 Revolving Facility, the term loan facility established thereunder, the 2013 Term Loan Facility, and the 2013 Revolving Facility together with the 2013 Term Loan Facility, the 2013 Credit Facilities), pursuant to which American refinanced $1.8 billion of the existing term loans outstanding under the 2013 Credit Facilities with proceeds of term loans incurred under the Fourth Amendment to the 2013 Credit Agreement (the 2013 Replacement Term Loans). The LIBOR margin on the 2013 Replacement Term Loans was reduced from 2.00% to 1.75% and the base rate margin on the 2013 Replacement Term Loans was reduced from 1.00% to 0.75%. Additionally, the maturity date of the 2013 Replacement Term Loans was extended to June 2025 pursuant to the Fourth Amendment to the 2013 Credit Agreement.

In December 2018, American and AAG entered into a Fifth Amendment (the Fifth Amendment to the 2013 Credit Agreement) to the 2013 Credit Agreement, as previously amended by the Fourth Amendment to the 2013 Credit Agreement. Pursuant to the Fifth Amendment to the 2013 Credit Agreement, adjustments to the 2013 Revolving Facility were made, including reducing the total aggregate commitments under the 2013 Revolving Facility by $200 million, extending the maturity date for the revolver loans thereunder from October 2022 to October 2023 and reducing the LIBOR margin from 2.25% to 2.00% and the base rate margin from 1.25% to 1.00% for certain of the lenders of the revolver loans thereunder. As of December 31, 2018, there were no borrowings or letters of credit outstanding under the 2013 Revolving Facility.

2014 Credit Facilities

In September 2018, American and AAG entered into a Fifth Amendment (the Fifth Amendment to the 2014 Credit Agreement) to the Amended and Restated Credit and Guaranty Agreement, amending the Amended and Restated Credit and Guaranty Agreement dated as of April 20, 2015, which amended and restated the Credit and Guaranty Agreement dated as of October 10, 2014 (as previously amended, the 2014 Credit Agreement, the revolving credit facility established thereunder, the 2014 Revolving Facility, the term loan facility established thereunder, the 2014 Term Loan Facility, and the 2014 Revolving Facility together with the 2014 Term Loan Facility, the 2014 Credit Facilities). The Fifth Amendment to the 2014 Credit Agreement provides for incremental term loans in the amount of $500 million under the 2014 Term Loan Facility. The terms of such incremental term loans are substantially similar to the terms of the existing term loans under the 2014 Term Loan Facility, including those with regard to maturity and interest rate margins. As of December 31, 2018, approximately $1.2 billion was outstanding under the 2014 Term Loan Facility.

In December 2018, American and AAG entered into a Sixth Amendment (the Sixth Amendment to the 2014 Credit Agreement) to the 2014 Credit Agreement, as previously amended by the Fifth Amendment to the 2014 Credit Agreement. Pursuant to the Sixth Amendment to the 2014 Credit Agreement, adjustments to the 2014 Revolving Facility were made, including increasing the total aggregate commitments under the 2014 Revolving Facility by approximately $543 million, extending the maturity date for the revolver loans thereunder from October 2022 to October 2023 and reducing the LIBOR margin from 2.25% to 2.00% and the base rate margin from 1.25% to 1.00% for certain of the lenders of the revolver loans thereunder. In addition to the slots, gates and routes (SGR) between airports in the United States and LHR previously pledged as collateral for the 2014 Credit Facilities, SGR between airports in the United States and other countries in the European Union were added as collateral under the 2014 Credit Facilities pursuant to the Sixth Amendment to the 2014 Credit Agreement. As of December 31, 2018, there were no borrowings or letters of credit outstanding under the 2014 Revolving Facility.

April 2016 Credit Facilities

In December 2018, American and AAG entered into a Fourth Amendment (the Fourth Amendment to the April 2016 Credit Agreement) to the Credit and Guaranty Agreement, amending the Credit and Guaranty Agreement dated as of April 29, 2016 (as previously amended, the April 2016 Credit Agreement, and the revolving credit facility established thereunder, the April 2016 Revolving Facility, the term loan facility established thereunder, the 2016 Term Loan Facility and the 2016 April Revolving Facility together with the 2016 Term Loan Facility, the April 2016 Credit Facilities). Pursuant to the Fourth Amendment to the April 2016 Credit Agreement, adjustments to the April 2016 Revolving Facility were made, including extending the maturity date from October 2022 to October 2023 for the revolver loans established thereunder and reducing the LIBOR margin from 2.25% to 2.00% and the base rate margin from 1.25% to 1.00% for certain of the lenders of the revolver loans thereunder. As of December 31, 2018, there were no borrowings or letters of credit outstanding under the April 2016 Revolving Facility.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

December 2016 Credit Facilities

In November 2017, American and AAG entered into the First Amendment to the Amended and Restated Credit and Guaranty Agreement, amending the Amended and Restated Credit and Guaranty Agreement, dated as of December 15, 2016, pursuant to which American refinanced the $1.3 billion term loan facility due December 2023 established thereunder (the December 2016 Term Loan Facility, and together with a revolving credit facility that may be established thereunder in the future, the December 2016 Credit Facilities), to reduce the LIBOR margin from 2.50% to 2.00% and the base rate margin from 1.50% to 1.00%.

Certain details of our 2013 Credit Facilities, 2014 Credit Facilities, April 2016 Credit Facilities and December 2016 Credit Facilities (collectively referred to as the Credit Facilities) are shown in the table below as of December 31, 2018:

	2013 Credit Facilities		2014 Credit Facilities		April 2016 Credit Facilities		December 2016 Credit Facilities
	2013 Replacement Term Loan	2013 Revolving Facility	2014 Term Loan	2014 Revolving Facility	April 2016 Term Loan	April 2016 Revolving Facility	December 2016 Term Loan
Aggregate principal issued or credit facility availability (in millions)	$1,900	$1,000	$1,250	$1,543	$1,000	$300	$1,250
Principal outstanding or drawn (in millions)	$1,825	$—	$1,215	$—	$980	$—	$1,225
Maturity date	June 2025	October 2023	October 2021	October 2023	April 2023	October 2023	December 2023
LIBOR margin	1.75%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

The term loans under each of the Credit Facilities are repayable in annual installments in an amount equal to 1.00% of the aggregate principal amount issued, with any unpaid balance due on the respective maturity dates. Voluntary prepayments may be made by American at any time.

The 2013 Revolving Facility, 2014 Revolving Facility and April 2016 Revolving Facility provide that American may from time to time borrow, repay and reborrow loans thereunder. The 2013 Revolving Facility and 2014 Revolving Facility have the ability to issue letters of credit thereunder in an aggregate amount outstanding at any time up to $100 million and $200 million, respectively. The 2013 Revolving Facility, 2014 Revolving Facility and April 2016 Revolving Facility are each subject to an undrawn annual fee of 0.63%. As of December 31, 2018, there were no borrowings or letters of credit outstanding under the 2013 Revolving Facility, 2014 Revolving Facility or April 2016 Revolving Facility. The December 2016 Credit Facilities provide for a revolving credit facility that may be established thereunder in the future.

Subject to certain limitations and exceptions, the Credit Facilities are secured by collateral, including certain spare parts, certain slots, certain route authorities, certain simulators and certain leasehold rights. American has the ability to make future modifications to the collateral pledged, subject to certain restrictions. American’s obligations under the Credit Facilities are guaranteed by AAG. American is required to maintain a certain minimum ratio of appraised value of the collateral to the outstanding loans as further described below in “Collateral-Related Covenants.”

The Credit Facilities contain events of default customary for similar financings, including cross default to other material indebtedness. Upon the occurrence of an event of default, the outstanding obligations may be accelerated and become due and payable immediately. In addition, if a “change of control” occurs, American will (absent an amendment or waiver) be required to repay at par the loans outstanding under the Credit Facilities and terminate the 2013 Revolving Facility, 2014 Revolving Facility and April 2016 Revolving Facility and any revolving credit facility

established under the December 2016 Credit Facilities. The Credit Facilities also include covenants that, among other things, require AAG to maintain a minimum aggregate liquidity (as defined in the Credit Facilities) of not less than $2.0 billion and limit the ability of AAG and its restricted subsidiaries to pay dividends and make certain other payments, make certain investments, incur additional indebtedness, incur liens on the collateral, dispose of the collateral, enter into certain affiliate transactions and engage in certain business activities, in each case subject to certain exceptions.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

(b) EETCs

Below is a discussion of the 2018 aircraft financing activities resulting from EETC issuances.

2017-2 EETCs

In August and October 2017, American created three pass-through trusts which issued approximately $1.0 billion aggregate face amount of Series 2017-2 Class AA, Class A and Class B EETCs (the 2017-2 EETCs) in connection with the financing of 30 aircraft delivered to American through May 2018 (the 2017-2 Aircraft). In 2017, approximately $735 million of the net proceeds were used to purchase equipment notes issued by American in connection with the financing of 24 aircraft financed under the 2017-2 EETC. During the first six months of 2018, the remaining $283 million of net proceeds was used to purchase equipment notes issued by American in connection with the financing of the remaining six aircraft financed under the 2017-2 EETCs. Interest and principal payments on equipment notes issued in connection with the 2017-2 EETCs are payable semi-annually in April and October of each year, with interest payments that began in April 2018 and principal payments that began in October 2018. These equipment notes are secured by liens on the 2017-2 Aircraft.

Certain information regarding the 2017-2 EETC equipment notes, as of December 31, 2018, is set forth in the table below.

	2017-2 EETCs		
	Series AA	Series A	Series B
Aggregate principal issued	$545 million	$252 million	$221 million
Fixed interest rate per annum	3.35%	3.60%	3.70%
Maturity date	October 2029	October 2029	October 2025

2012-2C(R) EETCs

On May 15, 2018, American created a pass-through trust which issued $100 million aggregate face amount of the Series 2012-2 Class C(R) EETCs (the 2012-2C(R) EETCs). Interest and principal payments on equipment notes issued in connection with the 2012-2C(R) EETCs are payable semi-annually in June and December of each year, which began in December 2018.

American had previously issued $100 million aggregate face amount of Series 2012-2 Class C Certificates on June 6, 2013 (the 2012-2C Certificates) in connection with the financing of 11 aircraft previously delivered to American between May 2013 and October 2013. On June 1, 2018, American redeemed the Series C Equipment Notes relating to such 2012-2C Certificates (the 2012-2C Equipment Notes), which were scheduled to mature on June 3, 2018. The proceeds received from the 2012-2C(R) EETCs were used for the redemption of the 2012-2 Series C Equipment Notes and the repayment of the 2012-2C Certificates.

Certain information regarding the 2012-2 Class C(R) EETC equipment notes, as of December 31, 2018, is set forth in the table below.

	2012-2C(R) EETCs
	Series C(R)
Aggregate principal issued	$100 million
Fixed interest rate per annum	4.70%
Maturity date	June 2021

(c) Equipment Loans and Other Notes Payable Issued in 2018

In 2018, American entered into agreements under which it borrowed $1.5 billion in connection with the financing of certain aircraft and certain pre-delivery purchase deposits. Debt incurred under these agreements matures in 2021 through 2030 and bears interest at fixed and variable rates of LIBOR plus an applicable margin averaging 4.28% at December 31, 2018.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

(d) Senior Notes

The details of our 5.50% and 4.625% senior notes are shown in the table below as of December 31, 2018:

	5.50% Senior Notes	4.625% Senior Notes
Aggregate principal issued and outstanding	$750 million	$500 million
Maturity date	October 2019	March 2020
Fixed interest rate per annum	5.50%	4.625%
Interest payments	Semi-annually in arrears in April and October	Semi-annually in arrears in March and September

The 5.50% and 4.625% senior notes are senior unsecured obligations of AAG. The senior notes are fully and unconditionally guaranteed by American. The indentures for the senior notes contain covenants and events of default generally customary for similar financings. In addition, if we experience specific kinds of changes of control, we must offer to repurchase the senior notes at a price of 101% of the principal amount plus accrued and unpaid interest, if any, to (but not including) the repurchase date. Upon the occurrence of certain events of default, the senior notes may be accelerated and become due and payable.

Guarantees

As of December 31, 2018, AAG had issued guarantees covering approximately $769 million of American’s special facility revenue bonds (and interest thereon) and $8.4 billion of American’s secured debt (and interest thereon), including the Credit Facilities and certain EETC financings.

Collateral-Related Covenants

Certain of our debt financing agreements contain loan to value (LTV) ratio covenants and require us to annually appraise the related collateral. Pursuant to such agreements, if the LTV ratio exceeds a specified threshold, we are required, as applicable, to pledge additional qualifying collateral (which in some cases may include cash collateral), or pay down such financing, in whole or in part.

Specifically, we are required to meet certain collateral coverage tests on an annual basis for our Credit Facilities, as described below:

	2013 Credit Facilities	2014 Credit Facilities	April 2016 Credit Facilities	December 2016 Credit Facilities
Frequency of Appraisals of Appraised Collateral	Annual	Annual	Annual	Annual
LTV Requirement	1.6x Collateral valuation to amount of debt outstanding (62.5% LTV)	1.6x Collateral valuation to amount of debt outstanding (62.5% LTV)	1.6x Collateral valuation to amount of debt outstanding (62.5% LTV)	1.6x Collateral valuation to amount of debt outstanding (62.5% LTV)
LTV as of Last Measurement Date	34.8%	18.8%	40.9%	57.5%
Collateral Description	Generally, certain slots, route authorities and airport gate leasehold rights used by American to operate all services between the U.S. and South America	Generally, certain slots, route authorities and airport gate leasehold rights used by American to operate certain services between the U.S. and European Union (including London Heathrow)	Generally, certain spare parts	Generally, certain Ronald Reagan Washington National Airport (DCA) slots, certain La Guardia Airport (LGA) slots, certain simulators and

certain leasehold rights

At December 31, 2018, we were in compliance with the applicable collateral coverage tests as of the most recent measurement dates.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

6. Leases

We lease certain aircraft and engines, including aircraft under capacity purchase agreements. As of December 31, 2018, we had 660 leased aircraft, with remaining terms ranging from less than one year to 12 years.

At each airport where we conduct flight operations, we have agreements, generally with a governmental unit or authority, for the use of passenger, operations and baggage handling space as well as runways and taxiways. These agreements, particularly in the U.S., often contain provisions for periodic adjustments to rates and charges applicable under such agreements. These rates and charges also vary with our level of operations and the operations of the airport. Additionally, at our hub locations and in certain other cities we serve, we lease administrative offices, catering, cargo, training, maintenance and other facilities.

The components of lease expense were as follows (in millions):

	Year Ended December 31, 2018
Operating lease cost	$ 1,907
Finance lease cost:	
Amortization of assets	78
Interest on lease liabilities	48
Variable lease cost	2,353
Total net lease cost	$ 4,386

Included in the table above is $226 million of operating lease cost under our capacity purchase agreement with Republic. We hold a 25% equity interest in Republic Holdings, the parent company of Republic.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

Supplemental balance sheet information related to leases was as follows (in millions, except lease term and discount rate):

	December 31, 2018
Operating leases:	
Operating lease ROU assets	$9,151
Current operating lease liabilities	$1,654
Noncurrent operating lease liabilities	7,902
Total operating lease liabilities	$9,556
Finance leases:	
Property and equipment, at cost	$936
Accumulated amortization	(391)
Property and equipment, net	$545
Current obligations of finance leases	$81
Finance leases, net of current obligations	613
Total finance lease liabilities	$694
Weighted average remaining lease term (in years):	
Operating leases	7.6
Finance leases	7.4
Weighted average discount rate:	
Operating leases	4.6%
Finance leases	6.5%

Supplemental cash flow and other information related to leases was as follows (in millions):

	Year Ended December 31, 2018
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	$ 1,931
Operating cash flows from finance leases	48
Financing cash flows from finance leases	78
ROU assets obtained in exchange for lease liabilities:	
Operating leases	1,292
Gain on sale leaseback transactions, net	59

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

Maturities of lease liabilities were as follows (in millions):

	December 31, 2018	
	Operating Leases	Finance Leases
2019	$1,912	$ 124
2020	1,838	120
2021	1,636	118
2022	1,438	122
2023	1,255	105
2024 and thereafter	3,620	282
Total lease payments	11,699	871
Less: Imputed interest	(2,143)	(177)
Total lease obligations	9,556	694
Less: Current obligations	(1,654)	(81)
Long-term lease obligations	$7,902	$ 613

As of December 31, 2018, we have additional operating lease commitments that have not yet commenced of approximately $1.9 billion for 22 787-8 aircraft to be delivered in 2020 and 2021 with lease terms of 10 years.

Disclosures related to periods prior to adoption of the New Lease Standard

Operating lease rent expense, excluding landing fees, was approximately $3.2 billion in each of 2017 and 2016, which includes the lease of certain aircraft under capacity purchase agreements. As of December 31, 2017, future minimum lease payment obligations under noncancellable operating leases, including payments for the lease of certain aircraft under capacity purchase agreements, as well as payments under capital lease obligations were as follows (in millions):

	December 31, 2017	
	Operating Leases	Capital Leases
2018	$2,572	$ 126
2019	2,329	123
2020	2,104	120
2021	1,621	118
2022	1,398	122
2023 and thereafter	3,965	387
Total lease payments	$13,989	996
Less: Imputed interest		(225)
Total lease obligations		771
Less: Current obligations		(78)
Long-term lease obligations		$ 693

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

7. Income Taxes

The significant components of the income tax provision were (in millions):

	Year Ended December 31,		
	2018	2017	2016
Current income tax provision:			
State and Local	$3	$10	$3
Foreign	29	14	9
Current income tax provision	32	24	12
Deferred income tax provision:			
Federal	390	2,026	1,456
State and Local	50	63	100
Deferred income tax provision	440	2,089	1,556
Total income tax provision	$472	$2,113	$1,568

The income tax provision differed from amounts computed at the statutory federal income tax rate as follows (in millions):

	Year Ended December 31,		
	2018	2017	2016
Statutory income tax provision	$396	$1,188	$1,453
State income tax provision, net of federal tax effect	44	59	56
Foreign income taxes, net of federal tax effect	23	7	6
Book expenses not deductible for tax purposes	12	33	35
Bankruptcy administration expenses	—	1	1
2017 Tax Act	—	823	—
Change in valuation allowance	(6)	(3)	7
Other, net	3	5	10
Income tax provision	$472	$2,113	$1,568

We provide a valuation allowance for our deferred tax assets, which include our net operating losses (NOLs), when it is more likely than not that some portion, or all of our deferred tax assets, will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income. We consider all available positive and negative evidence and make certain assumptions in evaluating the realizability of our deferred tax assets. Many factors are considered that impact our assessment of future profitability, including conditions which are beyond our control, such as the health of the economy, the level and volatility of fuel prices and travel demand.

The total decrease to the valuation allowance was $6 million in 2018. In 2017, the total increase to the valuation allowance was $7 million, $10 million of which is included in the 2017 Tax Act amount in the table above. In 2016, the total increase to the valuation allowance was $7 million.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

The components of our deferred tax assets and liabilities were (in millions):

	December 31,	
	2018	2017
Deferred tax assets:		
Operating loss carryforwards	$2,343	$2,281
Leases	2,189	107
Pensions	1,430	1,559
Loyalty program liability	1,770	1,809
Alternative minimum tax (AMT) credit carryforwards	175	344
Postretirement benefits other than pensions	145	170
Rent expense	136	160
Reorganization items	33	35
Other	631	678
Total deferred tax assets	8,852	7,143
Valuation allowance	(30)	(36)
Net deferred tax assets	8,822	7,107
Deferred tax liabilities:		
Accelerated depreciation and amortization	(5,280)	(5,045)
Leases	(2,081)	—
Other	(326)	(279)
Total deferred tax liabilities	(7,687)	(5,324)
Net deferred tax asset	$1,135	$1,783

At December 31, 2018, we had approximately $10.2 billion of federal NOLs carried over from prior taxable years (NOL Carryforwards) to reduce future federal taxable income, substantially all of which we expect to be available for use in 2019. The federal NOL Carryforwards will expire beginning in 2022 if unused. We also had approximately $3.2 billion of NOL Carryforwards to reduce future state taxable income at December 31, 2018, which will expire in years 2019 through 2038 if unused. Our ability to deduct our NOL Carryforwards and to utilize certain other available tax attributes can be substantially constrained under the general annual limitation rules of Section 382 where an "ownership change" has occurred. Substantially all of our remaining federal NOL Carryforwards attributable to US Airways Group are subject to limitation under Section 382; however, our ability to utilize such NOL Carryforwards is not anticipated to be effectively constrained as a result of such limitation. We elected to be covered by certain special rules for federal income tax purposes that permitted approximately $9.0 billion (with $8.4 billion of unlimited NOL still remaining at December 31, 2018) of our federal NOL Carryforwards to be utilized without regard to the annual limitation generally imposed by Section 382. Similar limitations may apply for state income tax purposes. Our ability to utilize any new NOL Carryforwards arising after the ownership changes is not affected by the annual limitation rules imposed by Section 382 unless another future ownership change occurs. Under the Section 382 limitation, cumulative stock ownership changes among material stockholders exceeding 50% during a rolling three-year period can potentially limit a company's future use of NOLs and tax credits. See Part I, Item 1A. Risk Factors – "Our ability to utilize our NOL Carryforwards may be limited" for unaudited additional discussion of this risk.

At December 31, 2018, we had an AMT credit carryforward of approximately $339 million available for federal income tax purposes, which is now expected to be fully refundable over the next several years as a result of the repeal of corporate AMT.

In 2018, we recorded an income tax provision of $472 million, with an effective rate of approximately 25%, which was substantially non-cash. The 2018 income tax provision included an $18 million special income tax charge related to an international income tax matter. Substantially all of our income before income taxes is attributable to the United States.

We file our tax returns as prescribed by the tax laws of the jurisdictions in which we operate. Our 2015 through 2017 tax years are still subject to examination by the Internal Revenue Service. Various state and foreign jurisdiction tax years remain open to examination and we are under examination, in administrative appeals, or engaged in tax litigation in certain jurisdictions. We believe that the effect of any assessments will not be material to our consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

The amount of, and changes to, our uncertain tax positions were not material in any of the years presented. We accrue interest and penalties related to unrecognized tax benefits in interest expense and operating expense, respectively.
The 2017 Tax Act was enacted on December 22, 2017. The 2017 Tax Act is the most comprehensive tax change in more than 30 years. We have completed our evaluation of the 2017 Tax Act and we have reflected the impact of its effects, including the impact of lower corporate income tax rates (21% vs. 35%) on our deferred tax assets and liabilities and the one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred. For the year ended December 31, 2017, we recognized a special income tax provision of $823 million to reflect these impacts of the 2017 Tax Act.

8. Risk Management

Our economic prospects are heavily dependent upon two variables we cannot control: the health of the economy and the price of fuel.
Due to the discretionary nature of business and leisure travel spending and the highly competitive nature of the airline industry, our revenues are heavily influenced by the condition of the U.S. economy and economies in other regions of the world. Unfavorable conditions in these broader economies have resulted, and may result in the future, in decreased passenger demand for air travel, changes in booking practices and related reactions by our competitors, all of which in turn have had, and may have in the future, a negative effect on our business. In addition, during challenging economic times, actions by our competitors to increase their revenues can have an adverse impact on our revenues.
Our operating results are materially impacted by changes in the availability, price volatility and cost of aircraft fuel, which represents one of the largest single cost items in our business. Market prices for jet fuel have fluctuated substantially over the past several years and prices continue to be highly volatile. Because of the amount of fuel needed to operate our business, even a relatively small increase or decrease in the price of fuel can have a material effect on our operating results and liquidity.
These additional factors could impact our results of operations, financial performance and liquidity:

(a) Credit Risk

Most of our receivables relate to tickets sold to individual passengers through the use of major credit cards or to tickets sold by other airlines and used by passengers on American. These receivables are short-term, mostly settled within seven days after sale. Bad debt losses, which have been minimal in the past, have been considered in establishing allowances for doubtful accounts. We do not believe we are subject to any significant concentration of credit risk.

(b) Interest Rate Risk

We have exposure to market risk associated with changes in interest rates related primarily to our variable rate debt obligations. Interest rates on $9.9 billion principal amount of long-term debt as of December 31, 2018 are subject to adjustment to reflect changes in floating interest rates. The weighted average effective interest rate on our variable rate debt was 4.3% at December 31, 2018. We do not currently have an interest rate hedge program.

(c) Foreign Currency Risk

We are exposed to the effect of foreign exchange rate fluctuations on the U.S. dollar value of foreign currency-denominated operating revenues and expenses. Our largest exposure comes from the British pound, Euro, Canadian dollar and various Latin American currencies, primarily the Brazilian real. We do not currently have a foreign currency hedge program. See Part I, Item 1A. Risk Factors – “We operate a global business with international operations that are subject to economic and political instability and have been, and in the future may continue to be, adversely affected by numerous events, circumstances or government actions beyond our control” for unaudited additional discussion of this risk.

9. Fair Value Measurements and Other Investments

Assets Measured at Fair Value on a Recurring Basis

Fair value is defined as the price that would be received from the sale of an asset or paid to transfer a liability (i.e. an exit price) on the measurement date in an orderly transaction between market participants in the principal or most advantageous market for the asset or liability. Accounting standards include disclosure requirements around fair

values used for certain financial instruments and establish a fair value hierarchy. The hierarchy prioritizes valuation inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of three levels:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

- 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.

When available, we use quoted market prices to determine the fair value of our financial assets. If quoted market prices are not available, we measure fair value using valuation techniques that use, when possible, current market-based or independently-sourced market parameters, such as interest rates and currency rates.

We utilize the market approach to measure fair value for our financial assets. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets. Our short-term investments classified as Level 2 primarily utilize broker quotes in a non-active market for valuation of these securities. No changes in valuation techniques or inputs occurred during the year ended December 31, 2018.

Assets measured at fair value on a recurring basis are summarized below (in millions):

	Fair Value Measurements as of December 31, 2018			
	Total	Level 1	Level 2	Level 3
Short-term investments [1] [2]:				
Money market funds	$16	$ 16	$ —	$ —
Corporate obligations	1,658	—	1,658	—
Bank notes/certificates of deposit/time deposits	2,436	—	2,436	—
Repurchase agreements	375	—	375	—
	4,485	16	4,469	—
Restricted cash and short-term investments [1]	154	12	142	—
Long-term investments [3]	189	189	—	—
Total	$4,828	$ 217	$ 4,611	$ —

(1) Unrealized gains or losses on short-term investments are recorded in accumulated other comprehensive loss at each measurement date.

(2) All short-term investments are classified as available-for-sale and stated at fair value. Our short-term investments mature in one year or less except for $877 million of bank notes/certificates of deposit/time deposits and $101 million of corporate obligations.

(3) Long-term investments primarily include our equity investment in China Southern Airlines, in which we presently own a 2.2% equity interest, and are classified in other assets on the consolidated balance sheets.

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	Fair Value Measurements as of December 31, 2017			
	Total	Level 1	Level 2	Level 3
Short-term investments [1] [2]:				
Money market funds	$188	$ 188	$ —	$ —
Corporate obligations	1,620	—	1,620	—
Bank notes/certificates of deposit/time deposits	2,663	—	2,663	—
Repurchase agreements	300	—	300	—
	4,771	188	4,583	—
Restricted cash and short-term investments [1]	318	108	210	—
Total	$5,089	$ 296	$ 4,793	$ —

(1) Unrealized gains or losses on short-term investments are recorded in accumulated other comprehensive loss at each measurement date.

(2) All short-term investments are classified as available-for-sale and stated at fair value. Our short-term investments mature in one year or less except for $700 million of bank notes/certificates of deposit/time deposits and $341 million of corporate obligations.

Fair Value of Debt

The fair value of our long-term debt was estimated using quoted market prices or discounted cash flow analyses, based on our current estimated incremental borrowing rates for similar types of borrowing arrangements. If our long-term debt was measured at fair value, it would have been classified as Level 2 in the fair value hierarchy. The carrying value and estimated fair value of our long-term debt, including current maturities, were as follows (in millions):

	December 31, 2018		December 31, 2017	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Long-term debt, including current maturities	$23,779	$23,775	$24,294	$24,985

10. Employee Benefit Plans

We sponsor defined benefit and defined contribution pension plans for eligible employees. The defined benefit pension plans provide benefits for participating employees based on years of service and average compensation for a specified period of time before retirement. Effective November 1, 2012, substantially all of our defined benefit pension plans were frozen and we began providing enhanced benefits under our defined contribution pension plans for certain employee groups. We use a December 31 measurement date for all of our defined benefit pension plans. We also provide certain retiree medical and other postretirement benefits, including health care and life insurance benefits, to retired employees. Effective November 1, 2012, we modified our retiree medical and other postretirement benefits plans to eliminate the company subsidy for employees who retire on or after November 1, 2012. As a result of modifications to our retiree medical and other postretirement benefits plans in 2012, we recognized a negative plan amendment of $1.9 billion, which is included as a component of prior service benefit in accumulated other comprehensive income (loss) (AOCI) and will be amortized over the future service life of the active plan participants for whom the benefit was eliminated, or approximately eight years. As of December 31, 2018, $390 million of prior service benefit remains to be amortized.

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Benefit Obligations, Fair Value of Plan Assets and Funded Status

The following tables provide a reconciliation of the changes in the pension and retiree medical and other postretirement benefits obligations, fair value of plan assets and a statement of funded status as of December 31, 2018 and 2017:

	Pension Benefits		Retiree Medical and Other Postretirement Benefits	
	2018	2017	2018	2017
	(In millions)			
Benefit obligation at beginning of period	$18,275	$17,238	$ 1,011	$ 991
Service cost	3	2	5	4
Interest cost	674	721	35	39
Actuarial (gain) loss [1] [2]	(1,910)	1,016	(133)	49
Settlements	(4)	(4)	—	—
Benefit payments	(662)	(726)	(81)	(80)
Other	2	28	—	8
Benefit obligation at end of period	$16,378	$18,275	$ 837	$ 1,011
Fair value of plan assets at beginning of period	$11,395	$10,017	$295	$266
Actual return on plan assets	(1,151)	1,797	(24)	37
Employer contributions [3]	475	286	35	72
Settlements	(4)	(4)	—	—
Benefit payments	(662)	(726)	(81)	(80)
Other	—	25	—	—
Fair value of plan assets at end of period	$10,053	$11,395	$225	$295
Funded status at end of period	$(6,325)	$(6,880)	$(612)	$(716)

(1) The December 31, 2018 and 2017 pension actuarial (gain) loss primarily relates to changes in our weighted average discount rate and mortality assumptions and, in 2018, changes to our retirement rate assumptions.

(2) The December 31, 2018 and 2017 retiree medical and other postretirement benefits actuarial (gain) loss primarily relates to weighted average discount rate assumption changes and, in 2018, changes to our medical trend and per capita claim assumptions.

(3) During 2018, we contributed $475 million to our defined benefit pension plans, including supplemental contributions of $433 million in addition to a $42 million minimum required contribution. During 2017, we contributed $286 million to our defined benefit pension plans, including supplemental contributions of $261 million in addition to a $25 million minimum required contribution.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

Balance Sheet Position

	Pension Benefits		Retiree Medical and Other Postretirement Benefits	
	2018	2017	2018	2017
	(In millions)			
As of December 31,				
Current liability	$7	$10	$ 23	$ 89
Noncurrent liability	6,318	6,870	589	627
Total liabilities	$6,325	$6,880	$ 612	$ 716
Net actuarial loss (gain)			$5,356	$5,351	$(452)	$(388)
Prior service cost (benefit)			131	160	(362)	(600)
Total accumulated other comprehensive loss (income), pre-tax			$5,487	$5,511	$(814)	$(988)

Plans with Accumulated Benefit Obligations Exceeding Fair Value of Plan Assets

	Pension Benefits		Retiree Medical and Other Postretirement Benefits	
	2018	2017	2018	2017
	(In millions)			
Projected benefit obligation	$16,351	$18,245	$ —	$ —
Accumulated benefit obligation (ABO)	16,341	18,235	—	—
Accumulated postretirement benefit obligation	—	—	837	1,011
Fair value of plan assets	10,023	11,364	225	295
ABO less fair value of plan assets	6,318	6,871	—	—

Net Periodic Benefit Cost (Income)

	Pension Benefits			Retiree Medical and Other Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
	(In millions)					
Defined benefit plans:						
Service cost	$3	$2	$2	$5	$4	$3
Interest cost	674	721	749	35	39	47
Expected return on assets	(905)	(790)	(750)	(24)	(21)	(20)
Settlements	—	1	—	—	—	—
Amortization of:						
Prior service cost (benefit)	28	28	28	(236)	(237)	(240)
Unrecognized net loss (gain)	141	144	126	(21)	(23)	(17)
Net periodic benefit cost (income)	$(59)	$106	$155	$(241)	$(238)	$(227)

The components of net periodic benefit income other than the service cost component are included in nonoperating other income, net in our consolidated statements of operations.

The estimated amount of unrecognized actuarial net loss and prior service cost for the defined benefit pension plans that will be amortized from AOCI into net periodic benefit cost over the next fiscal year is $181 million.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

The estimated amount of unrecognized actuarial net gain and prior service benefit for the retiree medical and other postretirement benefits plans that will be amortized from AOCI into net periodic benefit cost over the next fiscal year is $269 million.

Assumptions

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

	Pension Benefits		Retiree Medical and Other Postretirement Benefits	
	2018	2017	2018	2017
Benefit obligations:				
Weighted average discount rate	4.40%	3.80%	4.30%	3.60%

	Pension Benefits			Retiree Medical and Other Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Net periodic benefit cost:						
Weighted average discount rate	3.80%	4.30%	4.70%	3.60%	4.10%	4.42%
Weighted average expected rate of return on plan assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Weighted average health care cost trend rate assumed for next year [(1)]	N/A	N/A	N/A	3.91%	4.19%	4.25%

(1) The weighted average health care cost trend rate at December 31, 2018 is assumed to decline gradually to 3.45% by 2026 and remain level thereafter.

As of December 31, 2018, our estimate of the long-term rate of return on plan assets was 8% based on the target asset allocation. Expected returns on long duration bonds are based on yields to maturity of the bonds held at year-end. Expected returns on other assets are based on a combination of long-term historical returns, actual returns on plan assets achieved over the last ten years, current and expected market conditions, and expected value to be generated through active management and securities lending programs.

A one percentage point change in the assumed health care cost trend rates would have the following effects on our retiree medical and other postretirement benefits plans (in millions):

	1% Increase	1% Decrease
Increase (decrease) on 2018 service and interest cost	$ 2	$ (2)
Increase (decrease) on benefit obligation as of December 31, 2018	47	(43)

Minimum Contributions

We are required to make minimum contributions to our defined benefit pension plans under the minimum funding requirements of the Employee Retirement Income Security Act of 1974 (ERISA) and various other laws for U.S. based plans as well as underfunding rules specific to countries where we maintain defined benefit plans. Based on current funding assumptions, we have minimum required contributions of $786 million for 2019 including contributions to defined benefit plans for our wholly-owned regional subsidiaries. We expect to make supplemental contributions of $21 million to our U.S. based defined benefit pension plans in 2019. Our funding obligations will depend on the performance of our investments held in trust by the pension plans, interest rates for determining liabilities, the amount of and timing of any supplemental contributions and our actuarial experience.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

Benefit Payments

The following benefit payments, which reflect expected future service as appropriate, are expected to be paid (approximately, in millions):

	2019	2020	2021	2022	2023	2024-2028
Pension benefits	$720	$758	$797	$836	$876	$ 4,917
Retiree medical and other postretirement benefits	84	75	71	66	64	280

Plan Assets

The objectives of our investment policies are to: maintain sufficient income and liquidity to pay retirement benefits; produce a long-term rate of return that meets or exceeds the assumed rate of return for plan assets; limit the volatility of asset performance and funded status; and diversify assets among asset classes and investment managers.

Based on these investment objectives, a long-term strategic asset allocation has been established. This strategic allocation seeks to balance the potential benefit of improving funded position with the potential risk that the funded position would decline. The current strategic target asset allocation is as follows:

Asset Class/Sub-Class	Allowed Range
Equity	60% - 85%
Public:	
U.S. Large	20% - 50%
U.S. Small/Mid	0% - 10%
International	17% - 27%
Emerging Markets	5% - 11%
Alternative Investments	5% - 20%
Fixed Income	15% - 40%
Public:	
U.S. Long Duration	15% - 30%
High Yield and Emerging Markets	0% - 10%
Private Income	0% - 10%
Cash Equivalents	0% - 5%

Public equity as well as high yield and emerging market fixed income securities are used to provide diversification and are expected to generate higher returns over the long-term than U.S. long duration bonds. Public stocks are managed using a value investment approach in order to participate in the returns generated by stocks in the long-term, while reducing year-over-year volatility. U.S. long duration bonds are used to partially hedge the assets from declines in interest rates. Alternative (private) investments are used to provide expected returns in excess of the public markets over the long-term. The pension plan’s master trust also participates in securities lending programs to generate additional income by loaning plan assets to borrowers on a fully collateralized basis. These programs are subject to market risk.

Investments in securities traded on recognized securities exchanges are valued at the last reported sales price on the last business day of the year. Securities traded in the over-the-counter market are valued at the last bid price. The money market fund is valued at fair value which represents the net asset value of the shares of such fund as of the close of business at the end of the period. Investments in limited partnerships are carried at estimated net asset value as determined by and reported by the general partners of the partnerships and represent the proportionate share of the estimated fair value of the underlying assets of the limited partnerships. Common/collective trusts are valued at net asset value based on the fair values of the underlying investments of the trusts as determined by the sponsor of the trusts. The pension plan’s master trust also invests in a 103-12 investment entity (the 103-12 Investment Trust) which is designed to invest plan assets of more than one unrelated employer. The 103-12 Investment Trust is valued at net asset value which is determined by the issuer at the end of each month and is based on the aggregate fair value of trust assets less liabilities, divided by the number of units outstanding. No changes in valuation techniques or inputs occurred during the year.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

Benefit Plan Assets Measured at Fair Value on a Recurring Basis

The fair value of our pension plan assets at December 31, 2018 and 2017, by asset category, are as follows (in millions):

	Fair Value Measurements as of December 31, 2018			
Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Cash and cash equivalents	$23	$ —	$ —	$23
Equity securities:				
International markets [a] [b]	3,181	—	—	3,181
Large-cap companies [b]	2,021	—	—	2,021
Mid-cap companies [b]	583	—	—	583
Small-cap companies [b]	122	—	—	122
Mutual funds [c]	52	—	—	52
Fixed income:				
Corporate debt [d]	—	2,116	—	2,116
Government securities [e]	—	228	—	228
U.S. municipal securities	—	40	—	40
Alternative instruments:				
Private market partnerships [f]	—	—	7	7
Private market partnerships measured at net asset value [f] [h]	—	—	—	1,188
Common/collective trusts [g]	—	218	—	218
Common/collective trusts and 103-12 Investment Trust measured at net asset value [g] [h]	—	—	—	227
Insurance group annuity contracts	—	—	2	2
Dividend and interest receivable	47	—	—	47
Due to/from brokers for sale of securities – net	5	—	—	5
Other liabilities – net	(7)	—	—	(7)
Total	$6,027	$ 2,602	$ 9	$10,053

(a) Holdings are diversified as follows: 17% United Kingdom, 10% Japan, 8% France, 7% Switzerland, 6% Ireland, 17% emerging markets and the remaining 35% with no concentration greater than 5% in any one country.

(b) There are no significant concentrations of holdings by company or industry.

(c) Investment includes mutual funds invested 37% in equity securities of large-cap, mid-cap and small-cap U.S. companies, 38% in U.S. treasuries and corporate bonds and 25% in equity securities of international companies.

(d) Includes approximately 77% investments in corporate debt with a S&P rating lower than A and 23% investments in corporate debt with a S&P rating A or higher. Holdings include 85% U.S. companies, 12% international companies and 3% emerging market companies.

(e) Includes approximately 32% investments in U.S. domestic government securities, 37% in emerging market government securities and 31% in international government securities. There are no significant foreign currency risks within this classification.

(f)

Includes limited partnerships that invest primarily in U.S. (94%) and European (6%) buyout opportunities of a range of privately held companies. The pension plan's master trust does not have the right to redeem its limited partnership investment at its net asset value, but rather receives distributions as the underlying assets are liquidated. It is estimated that the underlying assets of these funds will be gradually liquidated over the next one to ten years. Additionally, the pension plan's master trust has future funding commitments of approximately $1.0 billion over the next ten years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

(g) Investment includes 45% in an emerging market 103-12 Investment Trust with investments in emerging country equity securities, 37% in a collective interest trust investing primarily in short-term securities, 12% in Canadian segregated balanced value, income growth and diversified pooled funds and 6% in a common/collective trust investing in securities of smaller companies located outside the U.S., including developing markets. For some trusts, requests for withdrawals must meet specific requirements with advance notice of redemption preferred.

(h) Certain investments that are measured using net asset value per share (or its equivalent) as a practical expedient for fair value have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the notes to the consolidated financial statements.

Asset Category	Fair Value Measurements as of December 31, 2017 Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Cash and cash equivalents	$28	$ —	$ —	$28
Equity securities:				
International markets [a] [b]	3,837	—	—	3,837
Large-cap companies [b]	2,451	—	—	2,451
Mid-cap companies [b]	744	—	—	744
Small-cap companies [b]	125	—	—	125
Mutual funds [c]	55	—	—	55
Fixed income:				
Corporate bonds [d]	—	2,344	—	2,344
Government securities [e]	—	238	—	238
U.S. municipal securities	—	39	—	39
Alternative instruments:				
Private market partnerships [f]	—	—	14	14
Private market partnerships measured at net asset value [f] [h]	—	—	—	879
Common/collective trusts [g]	—	315	—	315
Common/collective trusts and 103-12 Investment Trust measured at net asset value [g] [h]	—	—	—	283
Insurance group annuity contracts	—	—	2	2
Dividend and interest receivable	44	—	—	44
Due to/from brokers for sale of securities – net	3	—	—	3
Other liabilities – net	(6)	—	—	(6)
Total	$7,281	$ 2,936	$ 16	$11,395

(a) Holdings are diversified as follows: 17% United Kingdom, 11% Japan, 9% France, 6% Switzerland, 16% emerging markets and the remaining 41% with no concentration greater than 5% in any one country.

(b) There are no significant concentrations of holdings by company or industry.

(c) Investment includes mutual funds invested 39% in equity securities of large-cap, mid-cap and small-cap U.S. companies, 34% in U.S. treasuries and corporate bonds and 27% in equity securities of international companies.

(d) Includes approximately 76% investments in corporate debt with a S&P rating lower than A and 24% investments in corporate debt with a S&P rating A or higher. Holdings include 85% U.S. companies, 12% international companies and 3% emerging market companies.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

(e) Includes approximately 27% investments in U.S. domestic government securities, 43% in emerging market government securities and 30% in international government securities. There are no significant foreign currency risks within this classification.

(f) Includes limited partnerships that invest primarily in U.S. (94%) and European (6%) buyout opportunities of a range of privately held companies. The pension plan's master trust does not have the right to redeem its limited partnership investment at its net asset value, but rather receives distributions as the underlying assets are liquidated. It is estimated that the underlying assets of these funds will be gradually liquidated over the next one to ten years. Additionally, the pension plan's master trust has future funding commitments of approximately $903 million over the next ten years.

(g) Investment includes 42% in a collective interest trust investing primarily in short-term securities, 40% in an emerging market 103-12 Investment Trust with investments in emerging country equity securities, 10% in Canadian segregated balanced value, income growth and diversified pooled funds and 8% in a common/collective trust investing in securities of smaller companies located outside the U.S., including developing markets. For some trusts, requests for withdrawals must meet specific requirements with advance notice of redemption preferred.

(h) Certain investments that are measured using net asset value per share (or its equivalent) as a practical expedient for fair value have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the notes to the consolidated financial statements.

Changes in fair value measurements of Level 3 investments during the year ended December 31, 2018, were as follows (in millions):

	Private Market Partnerships	Insurance Group Annuity Contracts
Beginning balance at December 31, 2017	$ 14	$ 2
Actual loss on plan assets:		
Relating to assets still held at the reporting date	(2)	—
Purchases	1	—
Sales	(6)	—
Ending balance at December 31, 2018	$ 7	$ 2

Changes in fair value measurements of Level 3 investments during the year ended December 31, 2017, were as follows (in millions):

	Private Market Partnerships	Insurance Group Annuity Contracts
Beginning balance at December 31, 2016	$ 21	$ 2
Actual loss on plan assets:		
Relating to assets still held at the reporting date	(4)	—
Purchases	1	—
Sales	(1)	—
Transfers out	(3)	—
Ending balance at December 31, 2017	$ 14	$ 2

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

The fair value of our retiree medical and other postretirement benefits plans assets at December 31, 2018 by asset category, were as follows (in millions):

	Fair Value Measurements as of December 31, 2018			
Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Money market fund	$4	$ —	$ —	$4
Mutual funds – AAL Class	—	221	—	221
Total	$4	$ 221	$ —	$225

The fair value of our retiree medical and other postretirement benefits plans assets at December 31, 2017 by asset category, were as follows (in millions):

	Fair Value Measurements as of December 31, 2017			
Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Money market fund	$5	$ —	$ —	$5
Mutual funds – AAL Class	—	290	—	290
Total	$5	$ 290	$ —	$295

Investments in the retiree medical and other postretirement benefits plans' mutual funds are valued by quoted prices on the active market, which is fair value and represents the net asset value of the shares of such funds as of the close of business at the end of the period. The AAL Class mutual fund restricts trading only to American, resulting in a fair value classification of Level 2. Investments included approximately 30% of investments in non-U.S. common stocks in both 2018 and 2017. Net asset value is based on the fair market value of the funds' underlying assets and liabilities at the date of determination.

Defined Contribution Plans

We contributed $877 million, $851 million and $766 million to our defined contribution plans for the years ended December 31, 2018, 2017 and 2016, respectively.

Profit Sharing Program

We accrue 5% of our pre-tax income excluding special items for our profit sharing program. For the year ended December 31, 2018, we accrued $175 million for this program, which will be distributed to employees in the first quarter of 2019.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

11. Accumulated Other Comprehensive Loss

The components of AOCI are as follows (in millions):

	Pension, Retiree Medical and Other Postretirement Benefits	Unrealized Loss on Investments	Income Tax Benefit (Provision) [1]	Total
Balance at December 31, 2016	$ (4,406)	$ —	$ (677)	$(5,083)
Other comprehensive income (loss) before reclassifications	(30)	(1)	15	(16)
Amounts reclassified from AOCI	(87)	—	32 [2]	(55)
Net current-period other comprehensive income (loss)	(117)	(1)	47	(71)
Balance at December 31, 2017	(4,523)	(1)	(630)	(5,154)
Other comprehensive income (loss) before reclassifications	(62)	(4)	15	(51)
Amounts reclassified from AOCI	(88)	—	19 [2]	(69)
Net current-period other comprehensive income (loss)	(150)	(4)	34	(120)
Balance at December 31, 2018	$ (4,673)	$ (5)	$ (596)	$(5,274)

(1) Relates principally to pension, retiree medical and other postretirement benefits obligations that will not be recognized in net income until the obligations are fully extinguished.

(2) Relates to pension, retiree medical and other postretirement benefits obligations and is recognized within the income tax provision on our consolidated statements of operations.

Reclassifications out of AOCI for the years ended December 31, 2018 and 2017 are as follows (in millions):

AOCI Components	Amounts reclassified from AOCI Year Ended December 31, 2018	2017	Affected line items on the consolidated statements of operations
Amortization of pension, retiree medical and other postretirement benefits:			
Prior service benefit	$ (161)	$ (132)	Nonoperating other income, net
Actuarial loss	92	77	Nonoperating other income, net
Total reclassifications for the period, net of tax	$ (69)	$ (55)	

Amounts allocated to other comprehensive income (OCI) for income taxes as further described in Note 7 will remain in AOCI until we cease all related activities, such as termination of the pension plan.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

12. Commitments, Contingencies and Guarantees

(a) Aircraft, Engine and Other Purchase Commitments

Under all of our aircraft and engine purchase agreements, our total future commitments as of December 31, 2018 are expected to be as follows (approximately, in millions):

	2019	2020	2021	2022	2023	2024 and Thereafter	Total
Payments for aircraft commitments and certain engines [1]	$2,906	$1,683	$994	$1,378	$1,450	$ 6,047	$14,458

(1) These amounts are net of purchase deposits currently held by the manufacturers and include all commitments for regional aircraft. We have granted a security interest in certain of our purchase deposits with Boeing. Our purchase deposits held by all manufacturers totaled $1.3 billion as of December 31, 2018.

Additionally, we have purchase commitments related to jet fuel, construction projects and information technology support as follows (approximately): $1.9 billion in 2019, $1.1 billion in 2020, $1.0 billion in 2021, $32 million in 2022 and $7 million in 2023.

(b) Capacity Purchase Agreements with Third-Party Regional Carriers

American has capacity purchase agreements with third-party regional carriers. The capacity purchase agreements provide that all revenues, including passenger, in-flight, ancillary, mail and freight revenues, go to American. In return, American agrees to pay predetermined fees to these airlines for operating an agreed-upon number of aircraft, without regard to the number of passengers on board. In addition, these agreements provide that American either reimburses or pays 100% of certain variable costs, such as airport landing fees, fuel and passenger liability insurance. American controls marketing, scheduling, ticketing, pricing and seat inventories.

As of December 31, 2018, American's capacity purchase agreements with third-party regional carriers had expiration dates ranging from 2019 to 2027, with rights of American to extend the respective terms of certain agreements. See Part I, Item 2. Properties for unaudited information on the aircraft operated by third-party regional carriers under such capacity purchase agreements.

As of December 31, 2018, American's minimum fixed obligations under its capacity purchase agreements with third-party regional carriers are as follows (approximately, in millions):

	2019	2020	2021	2022	2023	2024 and Thereafter	Total
Minimum fixed obligations under capacity purchase agreements with third-party regional carriers [1]	$1,101	$930	$765	$618	$487	$ 1,043	$4,944

(1) Represents minimum payments under capacity purchase agreements with third-party regional carriers, which are estimates of costs based on assumed minimum levels of flying under the capacity purchase agreements and American's actual payments could differ materially. Excludes payments for the lease of certain aircraft under capacity purchase agreements, which are reflected in the operating lease obligations in Note 6.

(c) Airport Redevelopment

Los Angeles International Airport (LAX)

In 2018, we executed a lease agreement with Los Angeles World Airports (LAWA), which owns and operates LAX, in connection with a $1.6 billion modernization project related to LAX Terminals 4 and 5. Construction will occur in a phased approach, which started in October 2018 and is expected to be completed in 2028. The modernization project will include a unified departure hall to combine the entranceway of Terminals 4 and 5, reconfigured ticket counter and check-in areas with seamless access to security screening areas, 16 security screening lanes with automated technology and upgraded amenities at gate areas. The project will also include renovated break rooms, multi-use meeting rooms and team gathering spaces throughout the terminals to support our team members at LAX.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

We are managing this project and have legal title to the assets during their construction. As each phase is completed, the assets will be sold and transferred to LAWA, including the site improvements and non-proprietary improvements. As we control the assets during construction, they are recognized on our balance sheet until legal title has transferred. For 2018, we incurred approximately $7 million in costs relating to the LAX modernization project, which are included within operating property and equipment on our consolidated balance sheet as of December 31, 2018.

(d) Off-Balance Sheet Arrangements

Aircraft

American currently operates 389 owned aircraft and 88 leased aircraft which were financed with EETCs issued by pass-through trusts. These trusts are off-balance sheet entities, the primary purpose of which is to finance the acquisition of flight equipment. Rather than finance each aircraft separately when such aircraft is purchased, delivered or refinanced, these trusts allow American to raise the financing for a number of aircraft at one time and, if applicable, place such funds in escrow pending a future purchase, delivery or refinancing of the relevant aircraft. The trusts were also structured to provide for certain credit enhancements, such as liquidity facilities to cover certain interest payments, that reduce the risks to the purchasers of the trust certificates and, as a result, reduce the cost of aircraft financing to American.

Each trust covers a set number of aircraft scheduled to be delivered or refinanced upon the issuance of the EETC or within a specific period of time thereafter. At the time of each covered aircraft financing, the relevant trust used the proceeds of the issuance of the EETC (which may have been available at the time of issuance thereof or held in escrow until financing of the applicable aircraft following its delivery) to purchase equipment notes relating to the financed aircraft. The equipment notes are issued, at American’s election, in connection with a mortgage financing of the aircraft or, in certain cases, by a separate owner trust in connection with a leveraged lease financing of the aircraft. In the case of a leveraged lease financing, the owner trust then leases the aircraft to American. In both cases, the equipment notes are secured by a security interest in the aircraft. The pass-through trust certificates are not direct obligations of, nor are they guaranteed by, AAG or American. However, in the case of mortgage financings, the equipment notes issued to the trusts are direct obligations of American and, in certain instances, have been guaranteed by AAG. As of December 31, 2018, $11.6 billion associated with these mortgage financings is reflected as debt in the accompanying consolidated balance sheet.

With respect to leveraged leases, American evaluated whether the leases had characteristics of a variable interest entity. American concluded the leasing entities met the criteria for variable interest entities. American generally is not the primary beneficiary of the leasing entities if the lease terms are consistent with market terms at the inception of the lease and do not include a residual value guarantee, fixed-price purchase option or similar feature that obligates American to absorb decreases in value or entitles American to participate in increases in the value of the aircraft. American does not provide residual value guarantees to the bondholders or equity participants in the trusts. Some leases have a fair market value or a fixed price purchase option that allows American to purchase the aircraft at or near the end of the lease term. However, the option price approximates an estimate of the aircraft’s fair value at the option date. Under this feature, American does not participate in any increases in the value of the aircraft. American concluded it is not the primary beneficiary under these arrangements. Therefore, American accounts for the majority of its EETC leveraged lease financings as operating leases. American’s total future payments to the trusts of each of the relevant EETCs under these leveraged lease financings are $352 million as of December 31, 2018, which are reflected in the operating lease obligations in Note 6.

Letters of Credit and Other

We provide financial assurance, such as letters of credit, surety bonds or restricted cash and investments, primarily to support projected workers’ compensation obligations and airport commitments. As of December 31, 2018, we had $460 million of letters of credit and surety bonds securing various obligations. The letters of credit and surety bonds that are subject to expiration will expire on various dates through 2022.

(e) Legal Proceedings

Chapter 11 Cases. On November 29, 2011, AMR, American, and certain of AMR's other direct and indirect domestic subsidiaries (the Debtors) filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for the Southern District of New York (the Bankruptcy Court). On October 21, 2013, the Bankruptcy Court entered an order approving and confirming the Debtors' fourth amended joint plan of reorganization (as amended, the Plan). On the Effective Date, December 9, 2013, the Debtors consummated their reorganization pursuant to the Plan and completed the Merger.

Pursuant to rulings of the Bankruptcy Court, the Plan established the Disputed Claims Reserve to hold shares of AAG common stock reserved for issuance to disputed claimholders at the Effective Date that ultimately become holders of allowed

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

claims. The shares of AAG common stock issued to the Disputed Claims Reserve were originally issued on December 13, 2013 and have at all times since been included in the number of shares issued and outstanding as reported from time to time in our quarterly and annual reports, including for purposes of calculating earnings per share. As disputed claims are resolved, the claimants will receive distributions of shares from the Disputed Claims Reserve. However, we are not required to distribute additional shares above the limits contemplated by the Plan, even if the shares remaining for distribution in the Disputed Claims Reserve are not sufficient to fully pay any additional allowed unsecured claims. To the extent that any of the reserved shares remain undistributed upon resolution of all remaining disputed claims, such shares will not be returned to us but rather will be distributed to former AMR stockholders and former convertible noteholders treated as stockholders under the Plan. On February 12, 2019, in accordance with the approval granted by the Bankruptcy Court on December 6, 2018, an aggregate of approximately 17.3 million shares of AAG common stock were distributed from the Disputed Claims Reserve to former AMR shareholders and convertible noteholders. After giving effect to this distribution, the Disputed Claims Reserve holds approximately 7.2 million shares of AAG common stock.

Private Party Antitrust Action Related to Passenger Capacity. We, along with Delta Air Lines, Inc., Southwest Airlines Co., United Airlines, Inc. and, in the case of litigation filed in Canada, Air Canada, have been named as defendants in approximately 100 putative class action lawsuits alleging unlawful agreements with respect to air passenger capacity. The U.S. lawsuits have been consolidated in the Federal District Court for the District of Columbia (the DC Court). On June 15, 2018, we reached a preliminary settlement agreement with the plaintiffs in the amount of $45 million that, once approved, will resolve all claims in the U.S. lawsuits. That settlement received preliminary approval from the DC Court on June 18, 2018.

Private Party Antitrust Action Related to the Merger. On August 6, 2013, a lawsuit captioned Carolyn Fjord, et al., v. AMR Corporation, et al., was filed in the United States Bankruptcy Court for the Southern District of New York. The complaint named as defendants US Airways Group, US Airways, AMR and American, alleged that the effect of the Merger may be to create a monopoly in violation of Section 7 of the Clayton Antitrust Act, and sought injunctive relief and/or divestiture. On November 27, 2013, the Bankruptcy Court denied plaintiffs’ motion to preliminarily enjoin the Merger. On August 29, 2018, the Court denied in part defendants' motion for summary judgment, and fully denied plaintiffs' cross-motion for summary judgment. A bench trial is presently scheduled for March 2019. We believe this lawsuit is without merit and intend to vigorously defend against the allegations.

DOJ Investigation Related to the United States Postal Service. In April 2015, the Department of Justice (DOJ) informed us of an inquiry regarding American’s 2009 and 2011 contracts with the United States Postal Service for the international transportation of mail by air. In October 2015, we received a Civil Investigative Demand from the DOJ seeking certain information relating to these contracts and the DOJ has also sought information concerning certain of the airlines that transport mail on a codeshare basis. The DOJ has indicated it is investigating potential violations of the False Claims Act or other statutes. We are cooperating fully with the DOJ with regard to its investigation.

General. In addition to the specifically identified legal proceedings, we and our subsidiaries are also engaged in other legal proceedings from time to time. Legal proceedings can be complex and take many months, or even years, to reach resolution, with the final outcome depending on a number of variables, some of which are not within our control. Therefore, although we will vigorously defend ourselves in each of the actions described above and such other legal proceedings, their ultimate resolution and potential financial and other impacts on us are uncertain but could be material. See Part I, Item 1A. Risk Factors –“We may be a party to litigation in the normal course of business or otherwise, which could affect our financial position and liquidity” for additional discussion.

(f) Guarantees and Indemnifications

We are party to many routine contracts in which we provide general indemnities in the normal course of business to third parties for various risks. We are not able to estimate the potential amount of any liability resulting from the indemnities. These indemnities are discussed in the following paragraphs.

In our aircraft financing agreements, we generally indemnify the financing parties, trustees acting on their behalf and other relevant parties against liabilities (including certain taxes) resulting from the financing, manufacture, design,

ownership, operation and maintenance of the aircraft regardless of whether these liabilities (including certain taxes) relate to the negligence of the indemnified parties.

Our loan agreements and other LIBOR-based financing transactions (including certain leveraged aircraft leases) generally obligate us to reimburse the applicable lender for incremental costs due to a change in law that imposes (i) any reserve or special deposit requirement against assets of, deposits with or credit extended by such lender related to the loan, (ii) any tax, duty or other charge with respect to the loan (except standard income tax) or (iii) capital adequacy requirements. In addition, our loan agreements and other financing arrangements typically contain a withholding tax provision that requires

us to pay additional amounts to the applicable lender or other financing party, generally if withholding taxes are imposed on such lender or other financing party as a result of a change in the applicable tax law.

In certain transactions, including certain aircraft financing leases and loans, the lessors, lenders and/or other parties have rights to terminate the transaction based on changes in foreign tax law, illegality or certain other events or circumstances. In such a case, we may be required to make a lump sum payment to terminate the relevant transaction.

We have general indemnity clauses in many of our airport and other real estate leases where we as lessee indemnify the lessor (and related parties) against liabilities related to our use of the leased property. Generally, these indemnifications cover liabilities resulting from the negligence of the indemnified parties, but not liabilities resulting from the gross negligence or willful misconduct of the indemnified parties. In addition, we provide environmental indemnities in many of these leases for contamination related to our use of the leased property.

Under certain contracts with third parties, we indemnify the third-party against legal liability arising out of an action by the third-party, or certain other parties. The terms of these contracts vary and the potential exposure under these indemnities cannot be determined. We have liability insurance protecting us for some of the obligations we have undertaken under these indemnities.

American is required to make principal and interest payments for certain special facility revenue bonds issued by municipalities primarily to build or improve airport facilities and purchase equipment, which are leased to American. The payment of principal and interest of certain special facility revenue bonds is guaranteed by AAG. As of December 31, 2018, the remaining lease payments through 2035 guaranteeing the principal and interest on these bonds are $588 million and the current carrying amount of the associated operating lease liability in the accompanying consolidated balance sheet is $321 million.

As of December 31, 2018, AAG had issued guarantees covering approximately $769 million principal amount of American’s special facility revenue bonds (and interest thereon) and $8.4 billion principal amount of American’s secured debt (and interest thereon), including the Credit Facilities and certain EETC financings.

(g) Credit Card Processing Agreements

We have agreements with companies that process customer credit card transactions for the sale of air travel and other services. Our agreements allow these credit card processing companies, under certain conditions, to hold an amount of our cash (referred to as a holdback) equal to a portion of advance ticket sales that have been processed by that company, but for which we have not yet provided the air transportation. Additional holdback requirements in the event of material adverse changes in our financial condition will reduce our liquidity in the form of unrestricted cash by the amount of the holdbacks. These credit card processing companies are not currently entitled to maintain any holdbacks pursuant to these requirements.

(h) Labor Negotiations

As of December 31, 2018, we employed approximately 128,900 active full-time equivalent employees, of which 26,000 were employed by our regional operations. Approximately 84% of employees are covered by collective bargaining agreements (CBAs) with various labor unions and approximately 22% of employees are covered by CBAs that will become amendable within one year. Negotiations are continuing for joint collective bargaining agreements (JCBAs) covering our mainline maintenance, fleet service, stock clerks, maintenance control technicians and maintenance training instructors as well as for CBAs covering certain employee groups at our wholly-owned regional subsidiaries. Additionally, the post-Merger JCBAs covering our pilots and flight attendants, while not yet amendable, provide the unions with the right to elect to commence negotiations for new collective bargaining agreements in advance of each JCBA’s amendable date. Each of the unions has exercised these rights and negotiations are underway for new agreements as described in Part I, Item 1. Business - “Employees and Labor Relations”. There is no assurance that a successful or timely resolution of these labor negotiations will be achieved.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

13. Supplemental Cash Flow Information

Supplemental disclosure of cash flow information and non-cash investing and financing activities are as follows (in millions):

	Year Ended December 31,		
	2018	2017	2016
Non-cash investing and financing activities:			
Equity investment	$ —	$ 120	$ —
Settlement of bankruptcy obligations	—	15	3
Supplemental information:			
Interest paid, net	1,091	1,040	964
Income taxes paid	18	20	16

14. Operating Segments and Related Disclosures

We are managed as a single business unit that provides air transportation for passengers and cargo. This allows us to benefit from an integrated revenue pricing and route network that includes American and our wholly-owned and third-party regional carriers that fly under capacity purchase agreements operating as American Eagle. The flight equipment of all these carriers is combined to form one fleet that is deployed through a single route scheduling system. Financial information and annual operational plans and forecasts are prepared and reviewed by the chief operating decision maker at the consolidated level. When making operational decisions, the chief operating decision maker evaluates flight profitability data, which considers aircraft type and route economics, but is indifferent to the results of the individual wholly-owned regional carriers. The objective in making operational decisions is to maximize consolidated financial results, not the individual results of American or American Eagle.

See Note 1(k) for our passenger revenues by geographic region. Our tangible assets consist primarily of flight equipment, which are mobile across geographic markets and, therefore, have not been allocated.

15. Share-based Compensation

The 2013 AAG Incentive Award Plan (the 2013 Plan) provides that awards may be in the form of an option, restricted stock award, restricted stock unit award, performance award, dividend equivalent award, deferred stock award, deferred stock unit award, stock payment award or stock appreciation right. The 2013 Plan initially authorized the grant of awards for the issuance of up to 40 million shares. Any shares underlying awards granted under the 2013 Plan, or any pre-existing US Airways Group plan, that are forfeited, terminate or are settled in cash (in whole or in part) without the delivery of shares will again be available for grant.

Our salaries, wages and benefits expense for the years ended December 31, 2018, 2017 and 2016 included $88 million, $90 million and $102 million, respectively, of share-based compensation costs.

During 2018, 2017 and 2016, we withheld approximately 0.8 million, 1.1 million and 1.4 million shares of AAG common stock, respectively, and paid approximately $37 million, $51 million and $56 million, respectively, in satisfaction of certain tax withholding obligations associated with employee equity awards.

Restricted Stock Unit Awards (RSUs)

We have granted RSUs with service conditions (time vested primarily over three years) and performance conditions. The grant-date fair value of RSUs is equal to the market price of the underlying shares of AAG common stock on the date of grant. For time vested awards, the expense is recognized on a straight-line basis over the vesting period for the entire award. For awards with performance conditions, the expense is recognized based on the expected achievement at each reporting period. Stock-settled RSUs are classified as equity awards as the vesting results in the issuance of shares of AAG common stock.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

Stock-settled RSU award activity for all plans for the years ended December 31, 2018, 2017 and 2016 is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
	(In thousands)	
Outstanding at December 31, 2015	5,607	$ 38.08
Granted	2,655	41.34
Vested and released	(2,754)	34.83
Forfeited	(321)	40.15
Outstanding at December 31, 2016	5,187	$ 41.48
Granted	2,309	48.58
Vested and released	(2,708)	39.63
Forfeited	(464)	44.48
Outstanding at December 31, 2017	4,324	$ 46.94
Granted	2,194	47.65
Vested and released	(1,999)	44.99
Forfeited	(199)	45.72
Outstanding at December 31, 2018	4,320	$ 44.29

As of December 31, 2018, there was $111 million of unrecognized compensation cost related to stock-settled RSUs. These costs are expected to be recognized over a weighted average period of one year. The total fair value of stock-settled RSUs vested during the years ended December 31, 2018, 2017 and 2016 was $91 million, $123 million and $107 million, respectively.

16. Valuation and Qualifying Accounts (in millions)

	Balance at Beginning of Year	Additions Charged to Statement of Operations Accounts	Deductions	Balance at End of Year
Allowance for obsolescence of spare parts				
Year ended December 31, 2018	$ 769	$ 70	$ (25)	$ 814
Year ended December 31, 2017	765	29	(25)	769
Year ended December 31, 2016	728	37	—	765
Allowance for uncollectible accounts				
Year ended December 31, 2018	$ 24	$ 42	$ (37)	$ 29
Year ended December 31, 2017	36	43	(55)	24
Year ended December 31, 2016	41	47	(52)	36

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

17. Quarterly Financial Data (Unaudited)

Unaudited summarized financial data by quarter for 2018 and 2017 (in millions, except share and per share amounts):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2018 [1]				
Operating revenues	$10,401	$11,643	$11,559	$10,938
Operating expenses	10,005	10,639	10,874	10,367
Operating income	396	1,004	685	571
Net income	159	556	372	325
Earnings per share:				
Basic	$0.34	$1.20	$0.81	$0.71
Diluted	$0.34	$1.20	$0.81	$0.70
Shares used for computation (in thousands):				
Basic	472,297	463,533	460,526	460,589
Diluted	474,598	464,618	461,507	461,915
2017				
Operating revenues	$9,820	$11,227	$10,965	$10,611
Operating expenses	9,083	9,628	9,709	9,973
Operating income	737	1,599	1,256	638
Net income (loss)	340	864	661	(583)
Earnings (loss) per share:				
Basic	$0.67	$1.76	$1.36	$(1.22)
Diluted	$0.67	$1.75	$1.36	$(1.22)
Shares used for computation (in thousands):				
Basic	503,902	490,818	484,772	477,165
Diluted	507,797	492,965	486,625	477,165

[1] In the fourth quarter of 2018, we adopted the New Lease Standard as of January 1, 2018. In accordance with the New Lease Standard, prior 2018 periods have been recast to reflect the effects of this adoption. See Note 1(b) and Note 6 for further discussion of the New Lease Standard.

Our fourth quarter 2018 results include $225 million of total net special items that principally included $146 million of fleet restructuring expenses, $81 million of merger integration expenses, $37 million of severance costs associated with reductions of management and support staff team members, $22 million of mark-to-market net unrealized losses associated with certain equity investments, offset in part by a $37 million net credit resulting from mark-to-market adjustments on bankruptcy obligations and a $22 million income tax credit as a result of the reversal of the valuation allowance previously recognized in the first quarter of 2018 related to our estimated refund for AMT credits, which is no longer subject to sequestration.

Our fourth quarter 2017 results include $1.1 billion of total net special items that principally included a $149 million charge for the $1,000 cash bonus and associated payroll taxes granted to mainline employees as of December 31, 2017 in recognition of the 2017 Tax Act, $81 million of merger integration expenses, $58 million of fleet restructuring expenses, a $20 million net charge resulting from mark-to-market adjustments on bankruptcy obligations and an $823 million special non-cash charge to reflect the impact of lower corporate income tax rates on our deferred tax asset and liabilities due to the 2017 Tax Act, which reduced the federal corporate income tax rate from 35% to 21%.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES GROUP INC.

18. Subsequent Event

Dividend Declaration

In January 2019, we announced that our Board of Directors declared a $0.10 per share cash dividend for stockholders of record on February 6, 2019, and payable on February 20, 2019. Any future dividends that may be declared and paid from time to time will be subject to market and economic conditions, applicable legal requirements and other relevant factors. We are not obligated to continue a dividend for any fixed period, and the payment of dividends may be suspended or discontinued at any time at our discretion and without prior notice.

ITEM 8B. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA OF AMERICAN AIRLINES, INC.

Report of Independent Registered Public Accounting Firm

To the Stockholder and Board of Directors

American Airlines, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of American Airlines, Inc. and subsidiaries (American) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income, cash flows, and stockholder's equity for each of the years in the three year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of American as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three year period ended December 31, 2018, 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), American's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 25, 2019 expressed an unqualified opinion on the effectiveness of American's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, American changed its method of accounting for revenue from contracts with customers and leases in 2018 due to the full retrospective adoption of Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606), as amended, and the modified retrospective adoption of ASU 2016-02, Leases (Topic 842), as amended.

Basis for Opinion

These consolidated financial statements are the responsibility of American's management. Our responsibility is to express an opinion on these consolidated 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 American 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 consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as American's auditor since 2014.

Dallas, Texas

February 25, 2019

AMERICAN AIRLINES, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In millions)

	Year Ended December 31,		
	2018	2017	2016
Operating revenues:			
Passenger	$40,676	$39,131	$37,045
Cargo	1,013	890	785
Other	2,841	2,589	2,295
Total operating revenues	44,530	42,610	40,125
Operating expenses:			
Aircraft fuel and related taxes	8,053	6,128	5,071
Salaries, wages and benefits	12,240	11,942	10,958
Regional expenses	7,064	6,572	6,009
Maintenance, materials and repairs	2,050	1,959	1,834
Other rent and landing fees	1,900	1,806	1,772
Aircraft rent	1,264	1,197	1,203
Selling expenses	1,520	1,477	1,323
Depreciation and amortization	1,839	1,702	1,525
Special items, net	787	712	709
Other	5,090	4,910	4,641
Total operating expenses	41,807	38,405	35,045
Operating income	2,723	4,205	5,080
Nonoperating income (expense):			
Interest income	330	215	104
Interest expense, net	(1,028)	(988)	(906)
Other income, net	167	123	18
Total nonoperating expense, net	(531)	(650)	(784)
Income before income taxes	2,192	3,555	4,296
Income tax provision	534	2,270	1,607
Net income	$1,658	$1,285	$2,689

See accompanying notes to consolidated financial statements.

AMERICAN AIRLINES, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In millions)

	Year Ended December 31,		
	2018	2017	2016
Net income	$1,658	$1,285	$2,689
Other comprehensive income (loss), net of tax:			
Pension, retiree medical and other postretirement benefits	(116)	(68)	(357)
Investments	(3)	(1)	6
Total other comprehensive loss, net of tax	(119)	(69)	(351)
Total comprehensive income	$1,539	$1,216	$2,338

See accompanying notes to consolidated financial statements.

AMERICAN AIRLINES, INC.
CONSOLIDATED BALANCE SHEETS
(In millions, except shares and par value)

	December 31,	
	2018	2017
ASSETS		
Current assets		
Cash	$265	$287
Short-term investments	4,482	4,768
Restricted cash and short-term investments	154	318
Accounts receivable, net	1,755	1,755
Receivables from related parties, net	10,666	8,822
Aircraft fuel, spare parts and supplies, net	1,442	1,294
Prepaid expenses and other	493	647
Total current assets	19,257	17,891
Operating property and equipment		
Flight equipment	41,180	39,993
Ground property and equipment	8,466	8,006
Equipment purchase deposits	1,277	1,217
Total property and equipment, at cost	50,923	49,216
Less accumulated depreciation and amortization	(17,123)	(15,354)
Total property and equipment, net	33,800	33,862
Operating lease right-of-use assets	9,094	—
Other assets		
Goodwill	4,091	4,091
Intangibles, net of accumulated amortization of $663 and $622, respectively	2,137	2,203
Deferred tax asset	1,280	2,071
Other assets	1,219	1,283
Total other assets	8,727	9,648
Total assets	$70,878	$61,401
LIABILITIES AND STOCKHOLDER’S EQUITY		
Current liabilities		
Current maturities of long-term debt and finance leases	$2,547	$2,058
Accounts payable	1,707	1,625
Accrued salaries and wages	1,363	1,613
Air traffic liability	4,339	4,042
Loyalty program liability	3,267	3,121
Operating lease liabilities	1,639	—
Other accrued liabilities	2,259	2,209
Total current liabilities	17,121	14,668
Noncurrent liabilities		
Long-term debt and finance leases, net of current maturities	20,650	21,236
Pension and postretirement benefits	6,863	7,452
Loyalty program liability	5,272	5,701
Operating lease liabilities	7,857	—
Other liabilities	1,345	2,456
Total noncurrent liabilities	41,987	36,845
Commitments and contingencies (Note 10)		

Stockholder’s equity		
Common stock, $1.00 par value; 1,000 shares authorized, issued and outstanding	—	—
Additional paid-in capital	16,802	16,716
Accumulated other comprehensive loss	(5,370)	(5,251)
Retained earnings (deficit)	338	(1,577)
Total stockholder’s equity	11,770	9,888
Total liabilities and stockholder’s equity	$70,878	$61,401

See accompanying notes to consolidated financial statements.

AMERICAN AIRLINES, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income	$1,658	$1,285	$2,689
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	2,108	1,964	1,762
Debt discount and lease amortization	(97)	(119)	(124)
Special items, non-cash	458	272	270
Pension and postretirement	(302)	(132)	(70)
Deferred income tax provision	503	2,246	1,597
Share-based compensation	86	90	100
Other, net	(62)	(25)	(16)
Changes in operating assets and liabilities:			
Decrease (increase) in accounts receivable	232	(189)	(169)
Increase in other assets	(354)	(405)	(205)
Increase (decrease) in accounts payable and accrued liabilities	(171)	266	336
Increase in air traffic liability	297	65	158
Increase in receivables from related parties, net	(1,849)	(1,994)	(4,862)
Increase (decrease) in loyalty program liability	(283)	(308)	417
Contributions to pension plans	(472)	(286)	(32)
Increase (decrease) in other liabilities	191	140	(101)
Net cash provided by operating activities	1,943	2,870	1,750
Cash flows from investing activities:			
Capital expenditures and aircraft purchase deposits	(3,677)	(5,881)	(5,657)
Proceeds from sale of property and equipment and sale-leaseback transactions	1,202	922	115
Purchases of short-term investments	(3,412)	(4,633)	(6,241)
Sales of short-term investments	3,705	5,915	6,092
Proceeds from sale of investments	207	—	—
Decrease in restricted short-term investments	72	309	53
Purchase of equity investment	—	(203)	—
Other investing activities	(7)	—	—
Net cash used in investing activities	(1,910)	(3,571)	(5,638)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt	2,354	3,058	7,701
Payments on long-term debt and finance leases	(2,442)	(2,332)	(3,827)
Deferred financing costs	(59)	(85)	(77)
Other financing activities	—	27	33
Net cash provided by (used in) financing activities	(147)	668	3,830
Net decrease in cash and restricted cash	(114)	(33)	(58)
Cash and restricted cash at beginning of year	390	423	481
Cash and restricted cash at end of year [(a)]	$276	$390	$423

[(a)] The following table provides a reconciliation of cash and restricted cash to amounts reported within the consolidated balance sheets:

Cash	$265	$287	$310

Restricted cash included in restricted cash and short-term investments	11	103	113
Total cash and restricted cash	$276	$390	$423

See accompanying notes to consolidated financial statements.

AMERICAN AIRLINES, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDER'S EQUITY
(In millions)

	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Retained Earnings (Deficit)	Total
Balance at December 31, 2015	$ —	$ 16,521	$ (4,831)	$ (1,992)	$ 9,698
Net income	—	—	—	2,689	2,689
Other comprehensive loss	—	—	(351)	—	(351)
Share-based compensation expense	—	100	—	—	100
Impact of adoption of Accounting Standards Update (ASU) 2016-09 related to share-based compensation	—	—	—	418	418
Impact of adoption of ASU 2014-09 related to revenue recognition (See Note 1(b))	—	—	—	(3,977)	(3,977)
Intercompany equity transfer	—	3	—	—	3
Balance at December 31, 2016	—	16,624	(5,182)	(2,862)	8,580
Net income	—	—	—	1,285	1,285
Other comprehensive loss	—	—	(69)	—	(69)
Share-based compensation expense	—	90	—	—	90
Intercompany equity transfer	—	2	—	—	2
Balance at December 31, 2017	—	16,716	(5,251)	(1,577)	9,888
Net income	—	—	—	1,658	1,658
Other comprehensive loss	—	—	(119)	—	(119)
Share-based compensation expense	—	86	—	—	86
Impact of adoption of ASU 2016-01 related to financial instruments (See Note 1(b))	—	—	—	60	60
Impact of adoption of ASU 2016-02 related to leases (See Note 1(b))	—	—	—	197	197
Balance at December 31, 2018	$ —	$ 16,802	$ (5,370)	$ 338	$ 11,770

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

1. Basis of Presentation and Summary of Significant Accounting Policies

(a) Basis of Presentation

American Airlines, Inc. (American) is a Delaware corporation whose primary business activity is the operation of a major network air carrier. American is the principal wholly-owned subsidiary of American Airlines Group Inc. (AAG), which owns all of American's outstanding common stock, par value $1.00 per share. On December 9, 2013, a subsidiary of AMR Corporation (AMR) merged with and into US Airways Group, Inc. (US Airways Group), a Delaware corporation, which survived as a wholly-owned subsidiary of AAG, and AAG emerged from Chapter 11 (the Merger). Upon closing of the Merger and emergence from Chapter 11, AMR changed its name to American Airlines Group Inc. All significant intercompany transactions have been eliminated.

The preparation of financial statements in accordance with accounting principles generally accepted in the United States (GAAP) requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates. The most significant areas of judgment relate to passenger revenue recognition, impairment of goodwill, impairment of long-lived and intangible assets, the loyalty program, as well as pension and retiree medical and other postretirement benefits.

(b) Recent Accounting Pronouncements

Standards Adopted in 2018

Effective January 1, 2018, American adopted the accounting pronouncements described below.

ASU 2014-09: Revenue from Contracts with Customers (Topic 606) (the New Revenue Standard)

The New Revenue Standard applies to all companies that enter into contracts with customers to transfer goods or services. American adopted the New Revenue Standard using the full retrospective method, which resulted in the recast of prior reporting periods.

The adoption of the New Revenue Standard impacted American's accounting for outstanding mileage credits earned through travel by AAdvantage loyalty program members. There was no change in accounting for sales of mileage credits to co-branded credit card or other partners. Prior to the adoption of the New Revenue Standard, American used the incremental cost method to account for the portion of its loyalty program liability related to mileage credits earned through travel, which were valued based on the estimated incremental cost of carrying one additional passenger. The New Revenue Standard required American to change its policy to the deferred revenue method and apply a relative selling price approach whereby a portion of each passenger ticket sale attributable to mileage credits earned is deferred and recognized in passenger revenue upon future mileage redemption. The value of the earned mileage credits is materially greater under the deferred revenue method than the value attributed to these mileage credits under the incremental cost method.

The New Revenue Standard also required certain reclassifications, principally the reclassification of certain ancillary revenues previously classified and reported as other revenue to passenger revenue and as applicable to cargo revenue. Additionally, the New Revenue Standard required a gross presentation on the face of American's consolidated statements of operations for certain revenues and expenses that had previously been presented on a net basis.

See "Impacts to 2017 Results" and "Impacts to 2016 Results" below for the impact to American's consolidated statements of operations data for 2017 and 2016, respectively, and American's consolidated balance sheet as of December 31, 2017 related to the adoption of the New Revenue Standard.

ASU 2017-07: Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost (the New Retirement Standard)

The New Retirement Standard required all components of American's net periodic benefit cost (income), with the exception of service cost, previously reported within operating expenses as salaries, wages and benefits, to be reclassified and reported within nonoperating income (expense). The New Retirement Standard was applied retrospectively, which resulted in the recast of each prior reporting period presented. The adoption of the New Retirement Standard had no impact on pre-tax income or net income reported.

See "Impacts to 2017 Results" and "Impacts to 2016 Results" below for the impact to American's consolidated statements of operations data for 2017 and 2016, respectively, related to the adoption of the New Retirement Standard.

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ASU 2016-02: Leases (Topic 842) (the New Lease Standard)

The New Lease Standard requires lessees to recognize a lease liability and a right-of-use (ROU) asset on the balance sheet for operating leases. Accounting for finance leases is substantially unchanged. The New Lease Standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted.

In the fourth quarter of 2018, American elected to early adopt the New Lease Standard as of January 1, 2018 using a modified retrospective transition, with the cumulative-effect adjustment to the opening balance of retained earnings as of the effective date (the effective date method). Under the effective date method, financial results reported in periods prior to 2018 are unchanged. American also elected the package of practical expedients, which among other things, does not require reassessment of lease classification.

The adoption of the New Lease Standard had a significant impact on American’s consolidated balance sheet due to the recognition of approximately $10 billion of lease liabilities with corresponding right-of-use assets for operating leases. Additionally, American recognized a $197 million cumulative effect adjustment credit, net of tax, to retained earnings. The adjustment to retained earnings was driven principally by sale-leaseback transactions including the recognition of unamortized deferred aircraft sale-leaseback gains. Prior to the adoption of the New Lease Standard, gains on sale-leaseback transactions were generally deferred and recognized in the income statement over the lease term. Under the New Lease Standard, gains on sale-leaseback transactions (subject to adjustment for off-market terms) are recognized immediately.

ASU 2016-01: Financial Instruments - Overall (Subtopic 825-10)

This ASU made several modifications to Subtopic 825-10, including the elimination of the available-for-sale classification of equity investments, and it required equity investments with readily determinable fair values to be measured at fair value with changes in fair value recognized in net income. This standard was adopted prospectively as of January 1, 2018 and resulted in a $60 million cumulative effect adjustment credit to retained earnings, net of tax, related to American's investment in China Southern Airlines Company Limited (China Southern Airlines), which was previously accounted for under the cost method.

ASU 2016-18: Statement of Cash Flows (Topic 230): Restricted Cash

This ASU required that the change in the total cash balance, cash at the beginning of the period and cash at the end of the period on the statement of cash flows include restricted cash, and also required companies that report cash and restricted cash separately on the balance sheet to reconcile those amounts to the statement of cash flows. This standard was applied retrospectively, which resulted in the recast of prior reporting periods in the statement of cash flows. For the years ended December 31, 2018, 2017 and 2016, $11 million, $103 million and $113 million, respectively, of restricted cash is included in the total cash and restricted cash balance at the end of the period. A reconciliation of cash and restricted cash reported on American's consolidated statements of cash flows to the amounts reported on its consolidated balance sheets is provided in a table below the Consolidated Statements of Cash Flows.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

Impacts to 2017 Results

The effects of the adoption of the New Revenue Standard and New Retirement Standard to American's consolidated statement of operations for the twelve months ended December 31, 2017 were as follows (in millions):

		New Revenue Standard			New Retirement Standard	
Year Ended December 31, 2017	As Reported	Deferred Revenue Method	Ancillary Revenue Reclassifications	Gross Versus Net Presentation	Reclassifications	As Recast
Operating revenues:						
Passenger	$36,133	$311	$ 2,648	$ 39	$ —	$39,131
Cargo	800	—	42	48	—	890
Other	5,262	—	(2,690)	17	—	2,589
Total operating revenues	42,195	311	—	104	—	42,610
Total operating expenses	38,163	—	—	104	138	38,405
Operating income	4,032	311	—	—	(138)	4,205
Total nonoperating expense, net	(788)	—	—	—	138	(650)
Income before income taxes	3,244	311	—	—	—	3,555
Income tax provision [1]	1,322	948	—	—	—	2,270
Net income	$1,922	$(637)	$ —	$ —	$ —	$1,285

(1) The adjustment to the 2017 income tax provision includes a $924 million special charge to reduce American's deferred tax asset associated with loyalty program liabilities as a result of H.R. 1, the 2017 Tax Cuts and Jobs Act (the 2017 Tax Act), enacted in December 2017 that reduced the federal corporate income tax rate from 35% to 21%.

The effects of the adoption of the New Revenue Standard to American's December 31, 2017 consolidated balance sheet were as follows (in millions):

	As Reported	New Revenue Standard	As Recast
Deferred tax asset	$ 682	$1,389	$2,071
Air traffic liability	3,978	64	4,042
Current loyalty program liability	2,791	330	3,121
Noncurrent loyalty program liability	—	5,701	5,701
Total stockholders' equity (deficit)	14,594	(4,706)	9,888

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

Impacts to 2016 Results

The effects of the adoption of the New Revenue Standard and New Retirement Standard to American's consolidated statement of operations for the twelve months ended December 31, 2016 were as follows (in millions):

		New Revenue Standard			New Retirement Standard	
Year Ended December 31, 2016	As Reported	Deferred Revenue Method	Ancillary Revenue Reclassifications	Gross Versus Net Presentation	Reclassifications	As Recast
Operating revenues:						
Passenger	$34,579	$(147)	$ 2,571	$ 42	$ —	$37,045
Cargo	700	—	36	49	—	785
Other	4,884	—	(2,607)	18	—	2,295
Total operating revenues	40,163	(147)	—	109	—	40,125
Total operating expenses	34,859	—	—	109	77	35,045
Operating income	5,304	(147)	—	—	(77)	5,080
Total nonoperating expense, net	(861)	—	—	—	77	(784)
Income before income taxes	4,443	(147)	—	—	—	4,296
Income tax provision	1,662	(55)	—	—	—	1,607
Net income	$2,781	$(92)	$ —	$ —	$ —	$2,689

Standards Effective for 2019 Reporting Periods

ASU 2018-02: Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income

This ASU provides financial statement preparers with an option to reclassify stranded tax effects within accumulated other comprehensive income to retained earnings due to the U.S. federal corporate income tax rate change as a result of the 2017 Tax Act. The amount of the reclassification is the difference between the amount initially charged or credited directly to other comprehensive income at the previously enacted U.S. federal corporate income tax rate that remains in accumulated other comprehensive income and the amount that would have been charged or credited directly to other comprehensive income using the newly enacted U.S. federal corporate income tax rate, excluding the effect of any valuation allowance previously charged to income from continuing operations. This standard is effective for interim and annual reporting periods beginning after December 15, 2018, and early adoption is permitted. American will adopt this standard effective January 1, 2019. The adoption of the standard may impact tax amounts stranded in accumulated other comprehensive income related to American's pension and retiree medical and other postretirement benefit plans.

(c) Short-term Investments

Short-term investments are classified as available-for-sale and stated at fair value. Realized gains and losses are recorded in nonoperating expense on American's consolidated statements of operations. Unrealized gains and losses are recorded in accumulated other comprehensive loss on American's consolidated balance sheets.

(d) Restricted Cash and Short-term Investments

American has restricted cash and short-term investments related primarily to collateral held to support workers' compensation obligations.

(e) Aircraft Fuel, Spare Parts and Supplies, Net

Aircraft fuel is recorded on a first-in, first-out basis. Spare parts and supplies are recorded at average costs less an allowance for obsolescence. These items are expensed when used.

(f) Operating Property and Equipment

Operating property and equipment is recorded at cost and depreciated or amortized to residual values over the asset's estimated useful life or the lease term, whichever is less, using the straight-line method. Residual values for aircraft, engines and related rotable parts are generally 5% to 10% of original cost. Costs of major improvements that enhance

the usefulness

of the asset are capitalized and depreciated or amortized over the estimated useful life of the asset or the lease term, whichever is less. The estimated useful lives for the principal property and equipment classifications are as follows:

Principal Property and Equipment Classification	Estimated Useful Life
Aircraft, engines and related rotable parts	20 – 30 years
Buildings and improvements	5 – 30 years
Furniture, fixtures and other equipment	3 – 10 years
Capitalized software	5 – 10 years

American assesses impairment on operating property and equipment when events and circumstances indicate that the assets may be impaired. An asset or group of assets is considered impaired when the undiscounted cash flows estimated to be generated by the assets are less than the carrying amount of the assets and the net book value of the assets exceeds their estimated fair value. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less the cost to sell.

Total depreciation and amortization expense was $2.4 billion, $2.1 billion and $1.8 billion for the years ended December 31, 2018, 2017 and 2016, respectively.

(g) Leases

American determines if an arrangement is a lease at inception. Operating leases are included in operating lease ROU assets, current operating lease liabilities and noncurrent operating lease liabilities in American's consolidated balance sheet. Finance leases are included in property and equipment, current maturities of long-term debt and finance leases and long-term debt and finance leases, net of current maturities, in American's consolidated balance sheet.

ROU assets represent American's right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments arising from the lease. ROU assets and liabilities are recognized at the lease commencement date based on the estimated present value of lease payments over the lease term.

American uses its estimated incremental borrowing rate, which is derived from information available at the lease commencement date, in determining the present value of lease payments. American gives consideration to its recent debt issuances as well as publicly available data for instruments with similar characteristics when calculating its incremental borrowing rates.

American's lease term includes options to extend the lease when it is reasonably certain that it will exercise that option. Leases with a term of 12 months or less are not recorded on the balance sheet. American's lease agreements do not contain any residual value guarantees.

Under certain of American's capacity purchase agreements with third-party regional carriers, American does not own the underlying aircraft. However, since American controls the marketing, scheduling, ticketing, pricing and seat inventories of these aircraft and therefore control the asset, the aircraft is deemed to be leased for accounting purposes. For these capacity purchase agreements, American accounts for the lease and non-lease components separately. The lease component consists of the aircraft and the non-lease components consist of services, such as the crew and maintenance. American allocates the consideration in the capacity purchase agreements to the lease and non-lease components using their estimated relative standalone prices. See Note 10(b) for additional information on its capacity purchase agreements.

For real estate, American accounts for the lease and non-lease components as a single lease component.

(h) Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are recorded net as noncurrent deferred income taxes.

American provides a valuation allowance for its deferred tax assets when it is more likely than not that some portion, or all of its deferred tax assets, will not be realized. The ultimate realization of deferred tax assets is dependent upon the

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

generation of future taxable income. American considers all available positive and negative evidence and makes certain assumptions in evaluating the realizability of its deferred tax assets. Many factors are considered that impact American's assessment of future profitability, including conditions which are beyond American's control, such as the health of the economy, the level and volatility of fuel prices and travel demand.

(i) Goodwill

Goodwill represents the excess of the purchase price over the fair value of the net assets acquired and liabilities assumed. Goodwill is not amortized but assessed for impairment annually on October 1st or more frequently if events or circumstances indicate that goodwill may be impaired. American has one consolidated reporting unit.

Goodwill is assessed for impairment by initially performing a qualitative assessment and, if necessary, then comparing the fair value of the reporting unit to its carrying value, including goodwill. If the fair value of the reporting unit is less than the carrying value, a second step is performed to determine the implied fair value of goodwill. If the implied fair value of goodwill is lower than its carrying value, an impairment charge equal to the difference is recorded. Based upon American's annual assessment, there was no goodwill impairment in 2018. The carrying value of the goodwill on American's consolidated balance sheets was $4.1 billion as of December 31, 2018 and 2017.

(j) Other Intangibles, Net

Intangible assets consist primarily of domestic airport slots, customer relationships, marketing agreements, international slots and route authorities, airport gate leasehold rights and tradenames.

Finite-Lived Intangible Assets

Finite-lived intangible assets are amortized over their respective estimated useful lives and reviewed for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

The following table provides information relating to American's amortizable intangible assets as of December 31, 2018 and 2017 (in millions):

	December 31,	
	2018	2017
Domestic airport slots	$365	$365
Customer relationships	300	300
Marketing agreements	105	105
Tradenames	35	35
Airport gate leasehold rights	137	137
Accumulated amortization	(663)	(622)
Total	$279	$320

Certain domestic airport slots and airport gate leasehold rights are amortized on a straight-line basis over 25 years. The customer relationships and marketing agreements were identified as intangible assets subject to amortization and are amortized on a straight-line basis over approximately nine years and 30 years, respectively. Tradenames are fully amortized.

American recorded amortization expense related to these intangible assets of $41 million, $44 million and $76 million for the years ended December 31, 2018, 2017 and 2016, respectively. American expects to record annual amortization expense for these intangible assets as follows (in millions):

2019	$41
2020	41
2021	41
2022	41
2023	7
2024 and thereafter	108
Total	$279

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Indefinite-Lived Intangible Assets

Indefinite-lived intangible assets include certain domestic airport slots at American's hubs and international slots and route authorities. Indefinite-lived intangible assets are not amortized but instead are assessed for impairment annually on October 1st or more frequently if events or circumstances indicate that the asset may be impaired. For both periods as of December 31, 2018 and 2017, American had $1.9 billion of indefinite-lived intangible assets on its consolidated balance sheets.

In the second quarter of 2018, American recorded a $26 million impairment charge on a Brazil route authority as a result of the U.S.-Brazil open skies agreement, which is included within special items, net on its consolidated statement of operations.

Indefinite-lived intangible assets are assessed for impairment by initially performing a qualitative assessment to determine whether American believes it is more likely than not that an asset has been impaired. If American believes impairment has occurred, American then evaluates for impairment by comparing the estimated fair value of assets to the carrying value. An impairment charge is recognized if the asset's estimated fair value is less than its carrying value. Based upon American's annual assessment, there were no additional indefinite-lived intangible asset impairments in 2018 other than the Brazil route authority described above.

(k) Revenue Recognition

Revenue

Effective January 1, 2018, American adopted the New Revenue Standard using the full retrospective method, which resulted in the recast of prior reporting periods. Refer to "Recent Accounting Pronouncements" in Note 1(b) for the effects of the adoption on American's consolidated statements of operations for the years ended December 31, 2017 and 2016 and on American's consolidated balance sheet as of December 31, 2017. Under the New Revenue Standard, revenue is recognized upon the transfer of control of promised products or services to American's customers in an amount that reflects the consideration it expects to receive in exchange for those products or services.

The following are the significant categories comprising American's reported operating revenues (in millions):

	2018	2017	2016
Passenger revenue:			
Passenger travel	$37,457	$36,152	$34,278
Loyalty revenue - travel [1]	3,219	2,979	2,767
Total passenger revenue	40,676	39,131	37,045
Cargo	1,013	890	785
Other:			
Loyalty revenue - marketing services	2,352	2,124	1,872
Other revenue	489	465	423
Total other revenue	2,841	2,589	2,295
Total operating revenues	$44,530	$42,610	$40,125

(1) Loyalty revenue included in passenger revenue is principally comprised of mileage credit redemptions earned through travel and mileage credits sold to co-branded credit card and other partners. See "Loyalty Revenue" below for further discussion on these mileage credits.

The following is American's total passenger revenue by geographic region (in millions):

	2018	2017	2016
Domestic	$29,573	$28,749	$27,202
Latin America	5,125	4,840	4,676
Atlantic	4,376	4,028	3,873
Pacific	1,602	1,514	1,294
Total passenger revenue	$40,676	$39,131	$37,045

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American attributes passenger revenue by geographic region based upon the origin and destination of each flight segment.

Passenger Revenue

American recognizes all revenues generated from transportation on American and its regional flights operated under the brand name American Eagle, including associated baggage fees, ticketing change fees and other inflight services, as passenger revenue when transportation is provided. Ticket and other related sales for transportation that has not yet been provided are initially deferred and recorded as air traffic liability on American's consolidated balance sheets. The air traffic liability principally represents tickets sold for future travel on American and partner airlines, as well as estimated future refunds and exchanges of tickets sold for past travel.

The majority of tickets sold are nonrefundable. A small percentage of tickets, some of which are partially used tickets, expire unused. Due to complex pricing structures, refund and exchange policies, and interline agreements with other airlines, certain amounts are recognized in passenger revenue using estimates regarding both the timing of the revenue recognition and the amount of revenue to be recognized. These estimates are generally based on the analysis of American's historical data. American has consistently applied this accounting method to estimate revenue from forfeited tickets at the date of travel. Estimated future refunds and exchanges included in the air traffic liability are routinely evaluated based on subsequent activity to validate the accuracy of American's estimates. Any adjustments resulting from periodic evaluations of the estimated air traffic liability are included in passenger revenue during the period in which the evaluations are completed.

Various taxes and fees assessed on the sale of tickets to end customers are collected by American as an agent and remitted to taxing authorities. These taxes and fees have been presented on a net basis in the accompanying consolidated statements of operations and recorded as a liability until remitted to the appropriate taxing authority.

Loyalty Revenue

American currently operates the loyalty program, AAdvantage. This program awards mileage credits to passengers who fly on American, any oneworld airline or other partner airlines, or by using the services of other program participants, such as the Citi and Barclaycard US co-branded credit cards, hotels and car rental companies. Mileage credits can be redeemed for travel on American and other participating partner airlines, as well as other non-air travel awards such as hotels and rental cars. For mileage credits earned by AAdvantage loyalty program members, American applies the deferred revenue method in accordance with the New Revenue Standard.

Mileage credits earned through travel

For mileage credits earned through travel, American applies a relative selling price approach whereby the total amount collected from each passenger ticket sale is allocated between the air transportation and the mileage credits earned. The portion of each passenger ticket sale attributable to mileage credits earned is initially deferred and then recognized in passenger revenue when mileage credits are redeemed and transportation is provided. The estimated selling price of mileage credits is determined using an equivalent ticket value approach, which uses historical data, including award redemption patterns by geographic region and class of service, as well as similar fares as those used to settle award redemptions. The estimated selling price of miles is adjusted for an estimate of miles that will not be redeemed based on historical redemption patterns.

Mileage credits sold to co-branded credit cards and other partners

American sells mileage credits to participating airline partners and non-airline business partners including American's co-branded credit card partners, under contracts with terms extending generally for one to nine years. Consideration received from the sale of mileage credits is variable and payment terms typically are within 30 days subsequent to the month of mileage sale. Sales of mileage credits to non-airline business partners are comprised of two components, transportation and marketing. American allocates the consideration received from these sales of mileage credits based on the relative selling price of each product or service delivered.

American's most significant partner agreements are its co-branded credit card agreements with Citi and Barclaycard US that American entered into in 2016. American identified the following revenue elements in these co-branded credit card agreements: the transportation component; and the use of intellectual property, including the American brand and

access to loyalty program member lists, which is the predominant element in the agreements, as well as advertising (collectively, the marketing component). Accordingly, American recognizes the marketing component in other revenue in the period of the mileage sale following the sales-based royalty method.

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The transportation component represents the estimated selling price of future travel awards and is determined using the same equivalent ticket value approach described above. The portion of each mileage credit sold attributable to transportation is initially deferred and then recognized in passenger revenue when mileage credits are redeemed and transportation is provided.

For the portion of American's outstanding mileage credits that it estimates will not be redeemed, American recognizes the associated value proportionally as the remaining mileage credits are redeemed. American's estimates are based on analysis of historical redemptions.

Cargo Revenue

Cargo revenue is recognized when American provides the transportation.

Other Revenue

Other revenue includes revenue associated with American's loyalty program, which is comprised principally of the marketing component of mileage sales to co-branded credit card and other partners and other marketing related payments. For the years ended December 31, 2018, 2017 and 2016, loyalty revenue included in other revenue was $2.4 billion, $2.1 billion and $1.9 billion, respectively. The accounting and recognition for the loyalty program marketing services are discussed above in "Loyalty Revenue." The remaining amounts included within other revenue relate to airport clubs, advertising and vacation-related services.

Contract Balances

American's significant contract liabilities are comprised of (1) outstanding loyalty program mileage credits that may be redeemed for future travel and other non-air travel awards, reported as loyalty program liability on American's consolidated balance sheet and (2) ticket sales for transportation that has not yet been provided, reported as air traffic liability on American's consolidated balance sheet.

	December 31, 2018	December 31, 2017
	(in millions)	
Loyalty program liability	$8,539	$ 8,822
Air traffic liability	4,339	4,042
Total	$12,878	$ 12,864

The balance of the loyalty program liability fluctuates based on seasonal patterns, which impact the volume of mileage credits issued through travel or sold to co-branded credit card and other partners (deferral of revenue) and mileage credits redeemed (recognition of revenue). Changes in loyalty program liability are as follows (in millions):

Balance at December 31, 2017	$8,822
Deferral of revenue	3,083
Recognition of revenue [1]	(3,366)
Balance at December 31, 2018 [2]	$8,539

(1) Principally relates to revenue recognized from the redemption of mileage credits for both air and non-air travel awards. Mileage credits are combined in one homogenous 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.

(2) Mileage credits can be redeemed at any time and do not expire as long as that AAdvantage member has any type of qualifying activity at least every 18 months. As of December 31, 2018, American's current loyalty program liability was $3.3 billion and represents American's current estimate of revenue expected to be recognized in the next twelve months based on historical trends, with the balance reflected in long-term loyalty program liability expected to be recognized as revenue in periods thereafter.

The air traffic liability principally represents tickets sold for future travel on American and partner airlines, as well as estimated future refunds and exchanges of tickets sold for past travel. The balance in American's air traffic liability also

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fluctuates with seasonal travel patterns. The contract duration of passenger tickets is one year. Accordingly, any revenue associated with tickets sold for future travel will be recognized within twelve months. For 2018, $3.1 billion of revenue was recognized in passenger revenue that was included in American's air traffic liability at December 31, 2017.

With respect to contract receivables, reflected as accounts receivable, net on the accompanying consolidated balance sheet, these primarily include receivables for tickets sold to individual passengers through the use of major credit cards. These receivables are short-term, mostly settled within seven days after sale. Bad debt losses, which have been minimal in the past, have been considered in establishing allowances for doubtful accounts.

(l) Maintenance, Materials and Repairs

Maintenance and repair costs for owned and leased flight equipment are charged to operating expense as incurred, except costs incurred for maintenance and repair under flight hour maintenance contract agreements, which are accrued based on contractual terms when an obligation exists.

(m) Selling Expenses

Selling expenses include credit card fees, commissions, computerized reservations systems fees and advertising. Advertising costs are expensed as incurred. Advertising expense was $128 million, $135 million and $116 million for the years ended December 31, 2018, 2017 and 2016, respectively.

(n) Share-based Compensation

American accounts for its share-based compensation expense based on the fair value of the stock award at the time of grant, which is recognized ratably over the vesting period of the stock award. Certain awards have performance conditions that must be achieved prior to vesting and are expensed based on the expected achievement at each reporting period. The fair value of stock appreciation rights is estimated using a Black-Scholes option pricing model. The fair value of restricted stock units is based on the market price of the underlying shares of AAG common stock on the date of grant. See Note 13 for further discussion of share-based compensation.

(o) Foreign Currency Gains and Losses

Foreign currency gains and losses are recorded as part of other income, net within total nonoperating expense, net in American's consolidated statements of operations. Foreign currency losses for 2018 and 2017 were $54 million and $4 million, respectively, and for 2016, foreign currency gains were $1 million.

(p) Other Operating Expenses

Other operating expenses includes costs associated with ground and cargo handling, crew travel, aircraft food and catering, passenger accommodation, airport security, international navigation fees and certain general and administrative expenses.

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(q) Regional Expenses

Expenses associated with American Eagle operations are classified as regional expenses on American's consolidated statements of operations. Regional expenses consist of the following (in millions):

	Year Ended December 31,		
	2018	2017	2016
Aircraft fuel and related taxes	$1,843	$1,382	$1,109
Salaries, wages and benefits	338	356	327
Capacity purchases from third-party regional carriers [1]	3,267	3,283	3,186
Maintenance, materials and repairs	8	7	4
Other rent and landing fees	583	602	487
Aircraft rent	27	27	28
Selling expenses	369	361	347
Depreciation and amortization	267	262	237
Special items, net	—	3	13
Other	362	289	271
Total regional expenses	$7,064	$6,572	$6,009

(1) In 2018, American recognized $565 million of expense under its capacity purchase agreement with Republic Airline Inc. (Republic). American holds a 25% equity interest in Republic Airways Holdings Inc. (Republic Holdings), the parent company of Republic.

2. Special Items, Net

Special items, net on American's consolidated statements of operations consisted of the following (in millions):

	Year Ended December 31,		
	2018	2017	2016
Fleet restructuring expenses [1]	$ 422	$ 232	$ 177
Merger integration expenses [2]	268	273	514
Severance expenses [3]	58	—	—
Litigation settlement [4]	45	—	—
Intangible asset impairment [5]	26	—	—
Labor contract expenses	13	46	—
Mark-to-market adjustments on bankruptcy obligations, net [6]	(76)	27	25
Employee 2017 Tax Act bonus expense [7]	—	123	—
Other operating charges (credits), net	31	11	(7)
Mainline operating special items, net	787	712	709
Regional operating special items, net	—	3	13
Operating special items, net	787	715	722
Mark-to-market adjustments on equity investments, net [8]	104	—	—
Debt refinancing and extinguishment charges	13	22	49
Other nonoperating credits, net	(4)	—	—
Nonoperating special items, net	113	22	49
Income tax special items [9]	18	—	—
Impact of the 2017 Tax Act [10]	—	924	—
Income tax special items, net	18	924	—

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

(1) Fleet restructuring expenses principally included accelerated depreciation and rent expense for aircraft and related equipment grounded or expected to be grounded earlier than planned.

(2) Merger integration expenses included costs associated with integration projects, principally American's flight attendant, human resources and payroll, and technical operations systems.

(3) Severance expenses primarily included costs associated with reductions of management and support staff team members.

(4) Settlement of a private party antitrust lawsuit. See Note 10(e) - “Private Party Antitrust Action Related to Passenger Capacity” for further discussion.

(5) Intangible asset impairment includes a non-cash charge to write-off American’s Brazil route authority as a result of the U.S.-Brazil open skies agreement.

(6) Bankruptcy obligations that will be settled in shares of AAG common stock are marked-to-market based on AAG’s stock price.

(7) Employee bonus expense included costs related to the $1,000 cash bonus and associated payroll taxes granted to mainline employees as of December 31, 2017 in recognition of the 2017 Tax Act.

(8) Mark-to-market adjustments on equity investments relate to net unrealized losses primarily associated with American’s equity investments in China Southern Airlines and Mesa Air Group, Inc.

(9) Income tax special items for 2018 included an $18 million charge related to an international income tax matter.

(10) Impact of the 2017 Tax Act includes a $924 million non-cash charge to income tax expense to reflect the impact of lower corporate income tax rates on the Company’s deferred tax asset and liabilities resulting from the 2017 Tax Act, which reduced the federal corporate income tax rate from 35% to 21%.

3. Debt

Long-term debt included in the consolidated balance sheets consisted of (in millions):

	December 31,	
	2018	2017
Secured		
2013 Credit Facilities, variable interest rate of 4.26%, installments through 2025 [a]	$1,825	$1,825
2014 Credit Facilities, variable interest rate of 4.39%, installments through 2021 [a]	1,215	728
April 2016 Credit Facilities, variable interest rate of 4.52%, installments through 2023 [a]	980	990
December 2016 Credit Facilities, variable interest rate of 4.46%, installments through 2023 [a]	1,225	1,238
Aircraft enhanced equipment trust certificates (EETCs), fixed interest rates ranging from 3.00% to 9.01%, averaging 4.21%, maturing from 2019 to 2029 [b]	11,648	11,881
Equipment loans and other notes payable, fixed and variable interest rates ranging from 2.34% to 8.48%, averaging 4.26%, maturing from 2019 to 2030 [c]	5,060	5,259
Special facility revenue bonds, fixed interest rates of 5.00%, maturing from 2019 to 2031	769	828
Other secured obligations	—	1
Total long-term debt	22,722	22,750
Less: Total unamortized debt discount, premium and issuance costs	219	227
Less: Current maturities	2,466	1,980
Long-term debt, net of current maturities	$20,037	$20,543

The table below shows the maximum availability under revolving credit facilities, all of which were undrawn, as of December 31, 2018 (in millions):

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

2013 Revolving Facility	$1,000
2014 Revolving Facility	1,543
April 2016 Revolving Facility	300
Total	$2,843

Secured financings are collateralized by assets, primarily aircraft, engines, simulators, aircraft spare parts, airport gate leasehold rights, route authorities, airport slots and pre-delivery payments.

At December 31, 2018, the maturities of long-term debt are as follows (in millions):

2019	$2,508
2020	1,815
2021	3,409
2022	1,344
2023	3,892
2024 and thereafter	9,754
Total	$22,722

(a) 2013, 2014, April 2016 and December 2016 Credit Facilities

2013 Credit Facilities

In May 2018, American and AAG entered into a Fourth Amendment (the Fourth Amendment to the 2013 Credit Agreement) to the Amended and Restated Credit and Guaranty Agreement, amending the Amended and Restated Credit and Guaranty Agreement dated as of May 21, 2015, which amended and restated the Credit and Guaranty Agreement dated as of June 27, 2013 (as previously amended, the 2013 Credit Agreement, the revolving facility established thereunder, the 2013 Revolving Facility, the term loan facility established thereunder, the 2013 Term Loan Facility, and the 2013 Revolving Facility together with the 2013 Term Loan Facility, the 2013 Credit Facilities), pursuant to which American refinanced $1.8 billion of the existing term loans outstanding under the 2013 Credit Facilities with proceeds of term loans incurred under the Fourth Amendment to the 2013 Credit Agreement (the 2013 Replacement Term Loans). The LIBOR margin on the 2013 Replacement Term Loans was reduced from 2.00% to 1.75% and the base rate margin on the 2013 Replacement Term Loans was reduced from 1.00% to 0.75%. Additionally, the maturity date of the 2013 Replacement Term Loans was extended to June 2025 pursuant to the Fourth Amendment to the 2013 Credit Agreement.

In December 2018, American and AAG entered into a Fifth Amendment (the Fifth Amendment to the 2013 Credit Agreement) to the 2013 Credit Agreement, as previously amended by the Fourth Amendment to the 2013 Credit Agreement. Pursuant to the Fifth Amendment to the 2013 Credit Agreement, adjustments to the 2013 Revolving Facility were made, including reducing the total aggregate commitments under the 2013 Revolving Facility by $200 million, extending the maturity date for the revolver loans thereunder from October 2022 to October 2023 and reducing the LIBOR margin from 2.25% to 2.00% and the base rate margin from 1.25% to 1.00% for certain of the lenders of the revolver loans thereunder. As of December 31, 2018, there were no borrowings or letters of credit outstanding under the 2013 Revolving Facility.

2014 Credit Facilities

In September 2018, American and AAG entered into a Fifth Amendment (the Fifth Amendment to the 2014 Credit Agreement) to the Amended and Restated Credit and Guaranty Agreement, amending the Amended and Restated Credit and Guaranty Agreement dated as of April 20, 2015, which amended and restated the Credit and Guaranty Agreement dated as of October 10, 2014 (as previously amended, the 2014 Credit Agreement, the revolving credit facility established thereunder, the 2014 Revolving Facility, the term loan facility established thereunder, the 2014 Term Loan Facility, and the 2014 Revolving Facility together with the 2014 Term Loan Facility, the 2014 Credit Facilities). The Fifth Amendment to the 2014 Credit Agreement provides for incremental term loans in the amount of $500 million under the 2014 Term Loan Facility. The terms of such incremental term loans are substantially similar to the terms of the existing term loans under the 2014 Term Loan Facility, including those with regard to maturity and interest rate margins. As of December 31, 2018, approximately $1.2 billion was outstanding under the 2014 Term

Loan Facility.
In December 2018, American and AAG entered into a Sixth Amendment (the Sixth Amendment to the 2014 Credit Agreement) to the 2014 Credit Agreement, as previously amended by the Fifth Amendment to the 2014 Credit Agreement.

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Pursuant to the Sixth Amendment to the 2014 Credit Agreement, adjustments to the 2014 Revolving Facility were made, including increasing the total aggregate commitments under the 2014 Revolving Facility by approximately $543 million, extending the maturity date for the revolver loans thereunder from October 2022 to October 2023 and reducing the LIBOR margin from 2.25% to 2.00% and the base rate margin from 1.25% to 1.00% for certain of the lenders of the revolver loans thereunder. In addition to the slots, gates and routes (SGR) between airports in the United States and LHR previously pledged as collateral for the 2014 Credit Facilities, SGR between airports in the United States and other countries in the European Union were added as collateral under the 2014 Credit Facilities pursuant to the Sixth Amendment to the 2014 Credit Agreement. As of December 31, 2018, there were no borrowings or letters of credit outstanding under the 2014 Revolving Facility.

April 2016 Credit Facilities

In December 2018, American and AAG entered into a Fourth Amendment (the Fourth Amendment to the April 2016 Credit Agreement) to the Credit and Guaranty Agreement, amending the Credit and Guaranty Agreement dated as of April 29, 2016 (as previously amended, the April 2016 Credit Agreement, and the revolving credit facility established thereunder, the April 2016 Revolving Facility, the term loan facility established thereunder, the 2016 Term Loan Facility and the 2016 April Revolving Facility together with the 2016 Term Loan Facility, the April 2016 Credit Facilities). Pursuant to the Fourth Amendment to the April 2016 Credit Agreement, adjustments to the April 2016 Revolving Facility were made, including extending the maturity date from October 2022 to October 2023 for the revolver loans established thereunder and reducing the LIBOR margin from 2.25% to 2.00% and the base rate margin from 1.25% to 1.00% for certain of the lenders of the revolver loans thereunder. As of December 31, 2018, there were no borrowings or letters of credit outstanding under the April 2016 Revolving Facility.

December 2016 Credit Facilities

In November 2017, American and AAG entered into the First Amendment to the Amended and Restated Credit and Guaranty Agreement, amending the Amended and Restated Credit and Guaranty Agreement, dated as of December 15, 2016, pursuant to which American refinanced the $1.3 billion term loan facility due December 2023 established thereunder (the December 2016 Term Loan Facility, and together with a revolving credit facility that may be established thereunder in the future, the December 2016 Credit Facilities), to reduce the LIBOR margin from 2.50% to 2.00% and the base rate margin from 1.50% to 1.00%.

Certain details of American's 2013 Credit Facilities, 2014 Credit Facilities, April 2016 Credit Facilities and December 2016 Credit Facilities (collectively referred to as the Credit Facilities) are shown in the table below as of December 31, 2018:

	2013 Credit Facilities		2014 Credit Facilities		April 2016 Credit Facilities		December 2016 Credit Facilities
	2013 Replacement Term Loan	2013 Revolving Facility	2014 Term Loan	2014 Revolving Facility	April 2016 Term Loan	April 2016 Revolving Facility	December 2016 Term Loan
Aggregate principal issued or credit facility availability (in millions)	$1,900	$1,000	$1,250	$1,543	$1,000	$300	$1,250
Principal outstanding or drawn (in millions)	$1,825	$—	$1,215	$—	$980	$—	$1,225
Maturity date	June 2025	October 2023	October 2021	October 2023	April 2023	October 2023	December 2023
LIBOR margin	1.75%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

The term loans under each of the Credit Facilities are repayable in annual installments in an amount equal to 1.00% of the aggregate principal amount issued, with any unpaid balance due on the respective maturity dates. Voluntary

prepayments may be made by American at any time.

The 2013 Revolving Facility, 2014 Revolving Facility and April 2016 Revolving Facility provide that American may from time to time borrow, repay and reborrow loans thereunder. The 2013 Revolving Facility and 2014 Revolving Facility have the ability to issue letters of credit thereunder in an aggregate amount outstanding at any time up to $100 million and $200 million, respectively. The 2013 Revolving Facility, 2014 Revolving Facility and April 2016 Revolving Facility are each subject to an undrawn annual fee of 0.63%. As of December 31, 2018, there were no borrowings or letters of credit outstanding under the 2013 Revolving Facility, 2014 Revolving Facility or April 2016 Revolving Facility. The December 2016 Credit Facilities provide for a revolving credit facility that may be established thereunder in the future.

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Subject to certain limitations and exceptions, the Credit Facilities are secured by collateral, including certain spare parts, certain slots, certain route authorities, certain simulators and certain leasehold rights. American has the ability to make future modifications to the collateral pledged, subject to certain restrictions. American's obligations under the Credit Facilities are guaranteed by AAG. American is required to maintain a certain minimum ratio of appraised value of the collateral to the outstanding loans as further described below in "Collateral-Related Covenants."

The Credit Facilities contain events of default customary for similar financings, including cross default to other material indebtedness. Upon the occurrence of an event of default, the outstanding obligations may be accelerated and become due and payable immediately. In addition, if a "change of control" occurs, American will (absent an amendment or waiver) be required to repay at par the loans outstanding under the Credit Facilities and terminate the 2013 Revolving Facility, 2014 Revolving Facility and April 2016 Revolving Facility and any revolving credit facility established under the December 2016 Credit Facilities. The Credit Facilities also include covenants that, among other things, require AAG to maintain a minimum aggregate liquidity (as defined in the Credit Facilities) of not less than $2.0 billion and limit the ability of AAG and its restricted subsidiaries to pay dividends and make certain other payments, make certain investments, incur additional indebtedness, incur liens on the collateral, dispose of the collateral, enter into certain affiliate transactions and engage in certain business activities, in each case subject to certain exceptions.

(b) EETCs

Below is a discussion of the 2018 aircraft financing activities resulting from EETC issuances.

2017-2 EETCs

In August and October 2017, American created three pass-through trusts which issued approximately $1.0 billion aggregate face amount of Series 2017-2 Class AA, Class A and Class B EETCs (the 2017-2 EETCs) in connection with the financing of 30 aircraft delivered to American through May 2018 (the 2017-2 Aircraft). In 2017, approximately $735 million of the net proceeds were used to purchase equipment notes issued by American in connection with the financing of 24 aircraft financed under the 2017-2 EETC. During the first six months of 2018, the remaining $283 million of net proceeds was used to purchase equipment notes issued by American in connection with the financing of the remaining six aircraft financed under the 2017-2 EETCs. Interest and principal payments on equipment notes issued in connection with the 2017-2 EETCs are payable semi-annually in April and October of each year, with interest payments that began in April 2018 and principal payments that began in October 2018. These equipment notes are secured by liens on the 2017-2 Aircraft.

Certain information regarding the 2017-2 EETC equipment notes, as of December 31, 2018, is set forth in the table below.

	2017-2 EETCs		
	Series AA	Series A	Series B
Aggregate principal issued	$545 million	$252 million	$221 million
Fixed interest rate per annum	3.35%	3.60%	3.70%
Maturity date	October 2029	October 2029	October 2025

2012-2C(R) EETCs

On May 15, 2018, American created a pass-through trust which issued $100 million aggregate face amount of the Series 2012-2 Class C(R) EETCs (the 2012-2C(R) EETCs). Interest and principal payments on equipment notes issued in connection with the 2012-2C(R) EETCs are payable semi-annually in June and December of each year, which began in December 2018.

American had previously issued $100 million aggregate face amount of Series 2012-2 Class C Certificates on June 6, 2013 (the 2012-2C Certificates) in connection with the financing of 11 aircraft previously delivered to American between May 2013 and October 2013. On June 1, 2018, American redeemed the Series C Equipment Notes relating to such 2012-2C Certificates (the 2012-2C Equipment Notes), which were scheduled to mature on June 3, 2018. The proceeds received from the 2012-2C(R) EETCs were used for the redemption of the 2012-2 Series C Equipment Notes and the repayment of the 2012-2C Certificates.

Certain information regarding the 2012-2 Class C(R) EETC equipment notes, as of December 31, 2018, is set forth in the table below.

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	2012-2C(R) EETCs Series C(R)
Aggregate principal issued	$100 million
Fixed interest rate per annum	4.70%
Maturity date	June 2021

(c) Equipment Loans and Other Notes Payable Issued in 2018

In 2018, American entered into agreements under which it borrowed $1.5 billion in connection with the financing of certain aircraft and certain pre-delivery purchase deposits. Debt incurred under these agreements matures in 2021 through 2030 and bears interest at fixed and variable rates of LIBOR plus an applicable margin averaging 4.28% at December 31, 2018.

Guarantees

As of December 31, 2018, American had issued guarantees covering AAG's $750 million aggregate principal amount of 5.50% senior notes due 2019 and $500 million aggregate principal amount of 4.625% senior notes due 2020.

Collateral-Related Covenants

Certain of American's debt financing agreements contain loan to value (LTV) ratio covenants and require American to annually appraise the related collateral. Pursuant to such agreements, if the LTV ratio exceeds a specified threshold, American is required, as applicable, to pledge additional qualifying collateral (which in some cases may include cash collateral), or pay down such financing, in whole or in part.

Specifically, American is required to meet certain collateral coverage tests on an annual basis for its Credit Facilities, as described below:

	2013 Credit Facilities	2014 Credit Facilities	April 2016 Credit Facilities	December 2016 Credit Facilities
Frequency of Appraisals of Appraised Collateral	Annual	Annual	Annual	Annual
LTV Requirement	1.6x Collateral valuation to amount of debt outstanding (62.5% LTV)	1.6x Collateral valuation to amount of debt outstanding (62.5% LTV)	1.6x Collateral valuation to amount of debt outstanding (62.5% LTV)	1.6x Collateral valuation to amount of debt outstanding (62.5% LTV)
LTV as of Last Measurement Date	34.8%	18.8%	40.9%	57.5%
Collateral Description	Generally, certain slots, route authorities and airport gate leasehold rights used by American to operate all services between the U.S. and South America	Generally, certain slots, route authorities and airport gate leasehold rights used by American to operate certain services between the U.S. and European Union (including London Heathrow)	Generally, certain spare parts	Generally, certain Ronald Reagan Washington National Airport (DCA) slots, certain La Guardia Airport (LGA) slots, certain simulators and certain leasehold rights

At December 31, 2018, American was in compliance with the applicable collateral coverage tests as of the most recent measurement dates.

4. Leases

American leases certain aircraft and engines, including aircraft under capacity purchase agreements. As of December 31, 2018, American had 660 leased aircraft, with remaining terms ranging from less than one year to 12 years.

At each airport where American conducts flight operations, American has agreements, generally with a governmental unit or authority, for the use of passenger, operations and baggage handling space as well as runways and taxiways. These

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

agreements, particularly in the U.S., often contain provisions for periodic adjustments to rates and charges applicable under such agreements. These rates and charges also vary with American's level of operations and the operations of the airport. Additionally, at American's hub locations and in certain other cities it serves, American leases administrative offices, catering, cargo, training, maintenance and other facilities.

The components of lease expense were as follows (in millions):

	Year Ended December 31, 2018
Operating lease cost	$ 1,889
Finance lease cost:	
Amortization of assets	78
Interest on lease liabilities	48
Variable lease cost	2,353
Total net lease cost	$ 4,368

Included in the table above is $226 million of operating lease cost under American's capacity purchase agreement with Republic. American holds a 25% equity interest in Republic Holdings, the parent company of Republic.

Supplemental balance sheet information related to leases was as follows (in millions, except lease term and discount rate):

	December 31, 2018
Operating leases:	
Operating lease ROU assets	$9,094
Current operating lease liabilities	1,639
Noncurrent operating lease liabilities	7,857
Total operating lease liabilities	$9,496
Finance leases:	
Property and equipment, at cost	$936
Accumulated amortization	(391)
Property and equipment, net	$545
Current obligations of finance leases	$81
Finance leases, net of current obligations	613
Total finance lease liabilities	$694
Weighted average remaining lease term (in years):	
Operating leases	7.6
Finance leases	7.4
Weighted average discount rate:	
Operating leases	4.6%
Finance leases	6.5%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

Supplemental cash flow and other information related to leases was as follows (in millions):

	Year Ended December 31, 2018
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	$ 1,914
Operating cash flows from finance leases	48
Financing cash flows from finance leases	78
ROU assets obtained in exchange for lease liabilities:	
Operating leases	1,258
Gain on sale leaseback transactions, net	59

Maturities of lease liabilities were as follows (in millions):

	December 31, 2018	
	Operating Leases	Finance Leases
2019	$1,894	$ 124
2020	1,824	120
2021	1,625	118
2022	1,428	122
2023	1,250	105
2024 and thereafter	3,611	282
Total lease payments	11,632	871
Less: Imputed interest	(2,136)	(177)
Total lease obligations	9,496	694
Less: Current obligations	(1,639)	(81)
Long-term lease obligations	$7,857	$ 613

As of December 31, 2018, American has additional operating lease commitments that have not yet commenced of approximately $1.9 billion for 22 787-8 aircraft to be delivered in 2020 and 2021 with lease terms of 10 years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

Disclosures related to periods prior to adoption of the New Lease Standard

Operating lease rent expense, excluding landing fees, was approximately $3.2 billion and $3.1 billion in 2017 and 2016, respectively, which includes the lease of certain aircraft under capacity purchase agreements. As of December 31, 2017, future minimum lease payment obligations under noncancellable operating leases, including payments for the lease of certain aircraft under capacity purchase agreements, as well as payments under capital lease obligations were as follows (in millions):

	December 31, 2017	
	Operating Leases	Capital Leases
2018	$2,555	$ 126
2019	2,321	123
2020	2,096	120
2021	1,613	118
2022	1,394	122
2023 and thereafter	3,952	387
Total lease payments	$13,931	996
Less: Imputed interest		(225)
Total lease obligations		771
Less: Current obligations		(78)
Long-term lease obligations		$ 693

5. Income Taxes

The significant components of the income tax provision were (in millions):

	Year Ended December 31,		
	2018	2017	2016
Current income tax provision:			
State and Local	$3	$14	$1
Foreign	28	10	9
Current income tax provision	31	24	10
Deferred income tax provision:			
Federal	453	2,176	1,507
State and Local	50	70	90
Deferred income tax provision	503	2,246	1,597
Total income tax provision	$534	$2,270	$1,607

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

The income tax provision differed from amounts computed at the statutory federal income tax rate as follows (in millions):

	Year Ended December 31,		
	2018	2017	2016
Statutory income tax provision	$460	$1,244	$1,504
State income tax provision, net of federal tax effect	46	53	61
Foreign income taxes, net of federal tax effect	22	6	6
Book expenses not deductible for tax purposes	10	30	32
Bankruptcy administration expenses	—	1	1
2017 Tax Act	—	924	—
Change in valuation allowance	(6)	4	(1)
Other, net	2	8	4
Income tax provision	$534	$2,270	$1,607

American provides a valuation allowance for its deferred tax assets, which include the net operating losses (NOLs), when it is more likely than not that some portion, or all of its deferred tax assets, will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income. American considers all available positive and negative evidence and makes certain assumptions in evaluating the realizability of its deferred tax assets. Many factors are considered that impact American's assessment of future profitability, including conditions which are beyond its control, such as the health of the economy, the level and volatility of fuel prices and travel demand.

The total decrease to the valuation allowance was $6 million in 2018. In 2017, the total increase to the valuation allowance was $12 million, $8 million of which is included in the 2017 Tax Act amount in the table above. In 2016, the total decrease to the valuation allowance was $1 million.

The components of American's deferred tax assets and liabilities were (in millions):

	December 31,	
	2018	2017
Deferred tax assets:		
Operating loss carryforwards	$2,420	$2,409
Leases	2,176	107
Pensions	1,421	1,549
Loyalty program liability	1,770	1,809
Alternative minimum tax (AMT) credit carryforwards	231	457
Postretirement benefits other than pensions	145	170
Rent expense	136	160
Reorganization items	33	35
Other	588	638
Total deferred tax assets	8,920	7,334
Valuation allowance	(19)	(25)
Net deferred tax assets	8,901	7,309
Deferred tax liabilities:		
Accelerated depreciation and amortization	(5,243)	(4,999)
Leases	(2,068)	—
Other	(321)	(274)
Total deferred tax liabilities	(7,632)	(5,273)
Net deferred tax asset	$1,269	$2,036

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At December 31, 2018, American had approximately $10.6 billion of federal NOLs carried over from prior taxable years (NOL Carryforwards) to reduce future federal taxable income, substantially all of which American expects to be available for use in 2019. American is a member of AAG's consolidated federal and certain state income tax returns. The amount of federal NOL Carryforwards available in those returns is $10.2 billion, substantially all of which is expected to be available for use in 2019. The federal NOL Carryforwards will expire beginning in 2022 if unused. American also had approximately $3.1 billion of NOL Carryforwards to reduce future state taxable income at December 31, 2018, which will expire in years 2019 through 2038 if unused. American's ability to deduct its NOL Carryforwards and to utilize certain other available tax attributes can be substantially constrained under the general annual limitation rules of Section 382 where an "ownership change" has occurred. Substantially all of American's remaining federal NOL Carryforwards attributable to US Airways Group are subject to limitation under Section 382; however, American's ability to utilize such NOL Carryforwards is not anticipated to be effectively constrained as a result of such limitation. American elected to be covered by certain special rules for federal income tax purposes that permitted approximately $9.5 billion (with $8.6 billion of unlimited NOL still remaining at December 31, 2018) of its federal NOL Carryforwards to be utilized without regard to the annual limitation generally imposed by Section 382. Similar limitations may apply for state income tax purposes. American's ability to utilize any new NOL Carryforwards arising after the ownership changes is not affected by the annual limitation rules imposed by Section 382 unless another future ownership change occurs. Under the Section 382 limitation, cumulative stock ownership changes among material stockholders exceeding 50% during a rolling three-year period can potentially limit a company's future use of NOLs and tax credits. See Part I, Item 1A. Risk Factors – "Our ability to utilize our NOL Carryforwards may be limited" for unaudited additional discussion of this risk.

At December 31, 2018, American had an AMT credit carryforward of approximately $452 million available for federal income tax purposes, which is now expected to be fully refundable over the next several years as a result of the repeal of corporate AMT.

In 2018, American recorded an income tax provision of $534 million, with an effective rate of approximately 24%, which was substantially non-cash. American's income tax provision included an $18 million special income tax charge related to an international income tax matter. Substantially all of American's income before income taxes is attributable to the United States.

American is part of the AAG consolidated income tax return. American files its tax returns as prescribed by the tax laws of the jurisdictions in which it operates. American's 2015 through 2017 tax years are still subject to examination by the Internal Revenue Service. Various state and foreign jurisdiction tax years remain open to examination and American is under examination, in administrative appeals, or engaged in tax litigation in certain jurisdictions. American believes that the effect of any assessments will not be material to its consolidated financial statements.

The amount of, and changes to, American's uncertain tax positions were not material in any of the years presented. American accrues interest and penalties related to unrecognized tax benefits in interest expense and operating expense, respectively.

The 2017 Tax Act was enacted on December 22, 2017. The 2017 Tax Act is the most comprehensive tax change in more than 30 years. American has completed its evaluation of the 2017 Tax Act and American has reflected the impact of its effects, including the impact of lower corporate income tax rates (21% vs. 35%) on its deferred tax assets and liabilities and the one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred. For the year ended December 31, 2017, American recognized a special income tax provision of $924 million to reflect these impacts of the 2017 Tax Act.

6. Risk Management

American's economic prospects are heavily dependent upon two variables it cannot control: the health of the economy and the price of fuel.

Due to the discretionary nature of business and leisure travel spending and the highly competitive nature of the airline industry, American's revenues are heavily influenced by the condition of the U.S. economy and economies in other regions of the world. Unfavorable conditions in these broader economies have resulted, and may result in the future, in

decreased passenger demand for air travel, changes in booking practices and related reactions by American's competitors, all of which in turn have had, and may have in the future, a negative effect on American's business. In addition, during challenging economic times, actions by its competitors to increase their revenues can have an adverse impact on American's revenues.

American's operating results are materially impacted by changes in the availability, price volatility and cost of aircraft fuel, which represents one of the largest single cost items in American's business. Market prices for jet fuel have fluctuated substantially over the past several years and prices continue to be highly volatile. Because of the amount of fuel needed to

operate American's business, even a relatively small increase or decrease in the price of fuel can have a material effect on American's operating results and liquidity.

These additional factors could impact American's results of operations, financial performance and liquidity:

(a) Credit Risk

Most of American's receivables relate to tickets sold to individual passengers through the use of major credit cards or to tickets sold by other airlines and used by passengers on American. These receivables are short-term, mostly settled within seven days after sale. Bad debt losses, which have been minimal in the past, have been considered in establishing allowances for doubtful accounts. American does not believe it is subject to any significant concentration of credit risk.

(b) Interest Rate Risk

American has exposure to market risk associated with changes in interest rates related primarily to its variable rate debt obligations. Interest rates on $9.9 billion principal amount of long-term debt as of December 31, 2018 are subject to adjustment to reflect changes in floating interest rates. The weighted average effective interest rate on American's variable rate debt was 4.3% at December 31, 2018. American does not currently have an interest rate hedge program.

(c) Foreign Currency Risk

American is exposed to the effect of foreign exchange rate fluctuations on the U.S. dollar value of foreign currency-denominated operating revenues and expenses. American's largest exposure comes from the British pound, Euro, Canadian dollar and various Latin American currencies, primarily the Brazilian real. American does not currently have a foreign currency hedge program. See Part I, Item 1A. Risk Factors – "We operate a global business with international operations that are subject to economic and political instability and have been, and in the future may continue to be, adversely affected by numerous events, circumstances or government actions beyond our control" for unaudited additional discussion of this risk.

7. Fair Value Measurements and Other Investments

Assets Measured at Fair Value on a Recurring Basis

Fair value is defined as the price that would be received from the sale of an asset or paid to transfer a liability (i.e. an exit price) on the measurement date in an orderly transaction between market participants in the principal or most advantageous market for the asset or liability. Accounting standards include disclosure requirements around fair values used for certain financial instruments and establish a fair value hierarchy. The hierarchy prioritizes valuation inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of three levels:

- 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.

When available, American uses quoted market prices to determine the fair value of its financial assets. If quoted market prices are not available, American measures fair value using valuation techniques that use, when possible, current market-based or independently-sourced market parameters, such as interest rates and currency rates.

American utilizes the market approach to measure fair value for its financial assets. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets. American's short-term investments classified as Level 2 primarily utilize broker quotes in a non-active market for valuation of these securities. No changes in valuation techniques or inputs occurred during the year ended December 31, 2018.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

Assets measured at fair value on a recurring basis are summarized below (in millions):

	Fair Value Measurements as of December 31, 2018			
	Total	Level 1	Level 2	Level 3
Short-term investments [1] [2]:				
Money market funds	$14	$ 14	$—	$ —
Corporate obligations	1,658	—	1,658	—
Bank notes/certificates of deposit/time deposits	2,435	—	2,435	—
Repurchase agreements	375	—	375	—
	4,482	14	4,468	—
Restricted cash and short-term investments [1]	154	12	142	—
Long-term investments [3]	189	189	—	—
Total	$4,825	$ 215	$4,610	$ —

(1) Unrealized gains or losses on short-term investments are recorded in accumulated other comprehensive loss at each measurement date.

(2) All short-term investments are classified as available-for-sale and stated at fair value. American’s short-term investments mature in one year or less except for $877 million of bank notes/certificates of deposit/time deposits and $101 million of corporate obligations.

(3) Long-term investments primarily include American's equity investment in China Southern Airlines, in which American presently owns a 2.2% equity interest, and are classified in other assets on the consolidated balance sheets.

	Fair Value Measurements as of December 31, 2017			
	Total	Level 1	Level 2	Level 3
Short-term investments [1] [2]:				
Money market funds	$186	$ 186	$—	$ —
Corporate obligations	1,620	—	1,620	—
Bank notes/certificates of deposit/time deposits	2,662	—	2,662	—
Repurchase agreements	300	—	300	—
	4,768	186	4,582	—
Restricted cash and short-term investments [1]	318	108	210	—
Total	$5,086	$ 294	$4,792	$ —

(1) Unrealized gains or losses on short-term investments are recorded in accumulated other comprehensive loss at each measurement date.

(2) All short-term investments are classified as available-for-sale and stated at fair value. American’s short-term investments mature in one year or less except for $700 million of bank notes/certificates of deposit/time deposits and $341 million of corporate obligations.

Fair Value of Debt

The fair value of American’s long-term debt was estimated using quoted market prices or discounted cash flow analyses, based on American’s current estimated incremental borrowing rates for similar types of borrowing arrangements. If American’s long-term debt was measured at fair value, it would have been classified as Level 2 in the fair value hierarchy.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

The carrying value and estimated fair value of American's long-term debt, including current maturities, were as follows (in millions):

	December 31, 2018		December 31, 2017	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Long-term debt, including current maturities	$22,503	$22,497	$22,523	$23,165

8. Employee Benefit Plans

American sponsors defined benefit and defined contribution pension plans for eligible employees. The defined benefit pension plans provide benefits for participating employees based on years of service and average compensation for a specified period of time before retirement. Effective November 1, 2012, substantially all of American's defined benefit pension plans were frozen and American began providing enhanced benefits under its defined contribution pension plans for certain employee groups. American uses a December 31 measurement date for all of its defined benefit pension plans. American also provides certain retiree medical and other postretirement benefits, including health care and life insurance benefits, to retired employees. Effective November 1, 2012, American modified its retiree medical and other postretirement benefits plans to eliminate the company subsidy for employees who retire on or after November 1, 2012. As a result of modifications to its retiree medical and other postretirement benefits plans in 2012, American recognized a negative plan amendment of $1.9 billion, which is included as a component of prior service benefit in accumulated other comprehensive income (loss) (AOCI) and will be amortized over the future service life of the active plan participants for whom the benefit was eliminated, or approximately eight years. As of December 31, 2018, $390 million of prior service benefit remains to be amortized.

Benefit Obligations, Fair Value of Plan Assets and Funded Status

The following tables provide a reconciliation of the changes in the pension and retiree medical and other postretirement benefits obligations, fair value of plan assets and a statement of funded status as of December 31, 2018 and 2017:

	Pension Benefits		Retiree Medical and Other Postretirement Benefits	
	2018	2017	2018	2017
	(In millions)			
Benefit obligation at beginning of period	$18,175	$17,148	$ 1,010	$ 990
Service cost	2	2	5	4
Interest cost	670	717	35	39
Actuarial (gain) loss [1] [2]	(1,905)	1,007	(132)	49
Settlements	(4)	(4)	—	—
Benefit payments	(659)	(723)	(81)	(80)
Other	3	28	—	8
Benefit obligation at end of period	$16,282	$18,175	$ 837	$ 1,010
Fair value of plan assets at beginning of period	$11,340	$9,968	$295	$266
Actual return on plan assets	(1,148)	1,788	(24)	37
Employer contributions [3]	472	286	35	72
Settlements	(4)	(4)	—	—
Benefit payments	(659)	(723)	(81)	(80)
Other	—	25	—	—
Fair value of plan assets at end of period	$10,001	$11,340	$225	$295
Funded status at end of period	$(6,281)	$(6,835)	$(612)	$(715)

(1) The December 31, 2018 and 2017 pension actuarial (gain) loss primarily relates to changes in American's weighted average discount rate and mortality assumptions and, in 2018, changes to American's retirement rate assumptions.
(2) The December 31, 2018 and 2017 retiree medical and other postretirement benefits actuarial (gain) loss primarily

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

relates to weighted average discount rate assumption changes and, in 2018, changes to American's medical trend and per capita claim assumptions.

(3) During 2018, American contributed $472 million to its defined benefit pension plans, including supplemental contributions of $433 million in addition to a $39 million minimum required contribution. During 2017, American contributed $286 million to its defined benefit pension plans, including supplemental contributions of $261 million in addition to a $25 million minimum required contribution.

Balance Sheet Position

	Pension Benefits		Retiree Medical and Other Postretirement Benefits	
	2018	2017	2018	2017
	(In millions)			
As of December 31,				
Current liability	$7	$10	$ 23	$ 88
Noncurrent liability	6,274	6,825	589	627
Total liabilities	$6,281	$6,835	$ 612	$ 715
Net actuarial loss (gain)			$5,341	$5,337	$(452)	$(388)
Prior service cost (benefit)			131	159	(362)	(600)
Total accumulated other comprehensive loss (income), pre-tax			$5,472	$5,496	$(814)	$(988)

Plans with Accumulated Benefit Obligations Exceeding Fair Value of Plan Assets

	Pension Benefits		Retiree Medical and Other Postretirement Benefits	
	2018	2017	2018	2017
	(In millions)			
Projected benefit obligation	$16,254	$18,144	$ —	$ —
Accumulated benefit obligation (ABO)	16,246	18,135	—	—
Accumulated postretirement benefit obligation	—	—	837	1,010
Fair value of plan assets	9,971	11,307	225	295
ABO less fair value of plan assets	6,275	6,828	—	—

Net Periodic Benefit Cost (Income)

	Pension Benefits			Retiree Medical and Other Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
	(In millions)					
Defined benefit plans:						
Service cost	$2	$2	$2	$ 5	$ 4	$ 3
Interest cost	670	717	746	35	39	47
Expected return on assets	(901)	(786)	(747)	(24)	(21)	(20)
Settlements	—	1	—	—	—	—
Amortization of:						
Prior service cost (benefit)	28	28	28	(236)	(237)	(240)
Unrecognized net loss (gain)	140	144	125	(21)	(23)	(16)

Net periodic benefit cost (income)	$(61)	$106	$154	$ (241)	$ (238)	$ (226)

The components of net periodic benefit income other than the service cost component are included in nonoperating other income, net in American's consolidated statements of operations.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

The estimated amount of unrecognized actuarial net loss and prior service cost for the defined benefit pension plans that will be amortized from AOCI into net periodic benefit cost over the next fiscal year is $181 million.
The estimated amount of unrecognized actuarial net gain and prior service benefit for the retiree medical and other postretirement benefits plans that will be amortized from AOCI into net periodic benefit cost over the next fiscal year is $269 million.
Assumptions
The following actuarial assumptions were used to determine American's benefit obligations and net periodic benefit cost for the periods presented:

	Pension Benefits		Retiree Medical and Other Postretirement Benefits	
	2018	2017	2018	2017
Benefit obligations:				
Weighted average discount rate	4.40%	3.80%	4.30%	3.60%

	Pension Benefits			Retiree Medical and Other Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Net periodic benefit cost:						
Weighted average discount rate	3.80%	4.30%	4.70%	3.60%	4.10%	4.42%
Weighted average expected rate of return on plan assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Weighted average health care cost trend rate assumed for next year [1]	N/A	N/A	N/A	3.91%	4.19%	4.25%

[1] The weighted average health care cost trend rate at December 31, 2018 is assumed to decline gradually to 3.45% by 2026 and remain level thereafter.

As of December 31, 2018, American's estimate of the long-term rate of return on plan assets was 8% based on the target asset allocation. Expected returns on long duration bonds are based on yields to maturity of the bonds held at year-end. Expected returns on other assets are based on a combination of long-term historical returns, actual returns on plan assets achieved over the last ten years, current and expected market conditions, and expected value to be generated through active management and securities lending programs.
A one percentage point change in the assumed health care cost trend rates would have the following effects on American's retiree medical and other postretirement benefits plans (in millions):

	1% Increase	1% Decrease
Increase (decrease) on 2018 service and interest cost	$ 2	$ (2)
Increase (decrease) on benefit obligation as of December 31, 2018	47	(43)

Minimum Contributions
American is required to make minimum contributions to its defined benefit pension plans under the minimum funding requirements of the Employee Retirement Income Security Act of 1974 (ERISA) and various other laws for U.S. based plans as well as underfunding rules specific to countries where American maintains defined benefit plans. Based on current funding assumptions, American has minimum required contributions of $780 million for 2019. American expects to make supplemental contributions of $21 million to its U.S. based defined benefit pension plans in 2019. American's funding obligations will depend on the performance of American's investments held in trust by the pension plans, interest rates for determining liabilities, the amount of and timing of any supplemental contributions and American's actuarial experience.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

Benefit Payments

The following benefit payments, which reflect expected future service as appropriate, are expected to be paid (approximately, in millions):

	2019	2020	2021	2022	2023	2024-2028
Pension benefits	$717	$754	$793	$831	$872	$ 4,891
Retiree medical and other postretirement benefits	84	75	71	66	64	280

Plan Assets

The objectives of American's investment policies are to: maintain sufficient income and liquidity to pay retirement benefits; produce a long-term rate of return that meets or exceeds the assumed rate of return for plan assets; limit the volatility of asset performance and funded status; and diversify assets among asset classes and investment managers. Based on these investment objectives, a long-term strategic asset allocation has been established. This strategic allocation seeks to balance the potential benefit of improving funded position with the potential risk that the funded position would decline. The current strategic target asset allocation is as follows:

Asset Class/Sub-Class	Allowed Range
Equity	60% - 85%
Public:	
U.S. Large	20% - 50%
U.S. Small/Mid	0% - 10%
International	17% - 27%
Emerging Markets	5% - 11%
Alternative Investments	5% - 20%
Fixed Income	15% - 40%
Public:	
U.S. Long Duration	15% - 30%
High Yield and Emerging Markets	0% - 10%
Private Income	0% - 10%
Cash Equivalents	0% - 5%

Public equity as well as high yield and emerging market fixed income securities are used to provide diversification and are expected to generate higher returns over the long-term than U.S. long duration bonds. Public stocks are managed using a value investment approach in order to participate in the returns generated by stocks in the long-term, while reducing year-over-year volatility. U.S. long duration bonds are used to partially hedge the assets from declines in interest rates. Alternative (private) investments are used to provide expected returns in excess of the public markets over the long-term. The pension plan's master trust also participates in securities lending programs to generate additional income by loaning plan assets to borrowers on a fully collateralized basis. These programs are subject to market risk.

Investments in securities traded on recognized securities exchanges are valued at the last reported sales price on the last business day of the year. Securities traded in the over-the-counter market are valued at the last bid price. The money market fund is valued at fair value which represents the net asset value of the shares of such fund as of the close of business at the end of the period. Investments in limited partnerships are carried at estimated net asset value as determined by and reported by the general partners of the partnerships and represent the proportionate share of the estimated fair value of the underlying assets of the limited partnerships. Common/collective trusts are valued at net asset value based on the fair values of the underlying investments of the trusts as determined by the sponsor of the trusts. The pension plan's master trust also invests in a 103-12 investment entity (the 103-12 Investment Trust) which is designed to invest plan assets of more than one unrelated employer. The 103-12 Investment Trust is valued at net asset value which is determined by the issuer at the end of each month and is based on the aggregate fair value of trust assets less liabilities, divided by the number of units outstanding. No changes in valuation techniques or inputs occurred during the year.

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Benefit Plan Assets Measured at Fair Value on a Recurring Basis

The fair value of American's pension plan assets at December 31, 2018 and 2017, by asset category, are as follows (in millions):

	Fair Value Measurements as of December 31, 2018			
Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Cash and cash equivalents	$23	$ —	$ —	$23
Equity securities:				
International markets [a] [b]	3,181	—	—	3,181
Large-cap companies [b]	2,021	—	—	2,021
Mid-cap companies [b]	583	—	—	583
Small-cap companies [b]	122	—	—	122
Fixed income:				
Corporate debt [c]	—	2,116	—	2,116
Government securities [d]	—	228	—	228
U.S. municipal securities	—	40	—	40
Alternative instruments:				
Private market partnerships [e]	—	—	7	7
Private market partnerships measured at net asset value [e] [g]	—	—	—	1,188
Common/collective trusts [f]	—	218	—	218
Common/collective trusts and 103-12 Investment Trust measured at net asset value [f] [g]	—	—	—	227
Insurance group annuity contracts	—	—	2	2
Dividend and interest receivable	47	—	—	47
Due to/from brokers for sale of securities – net	5	—	—	5
Other liabilities – net	(7)	—	—	(7)
Total	$5,975	$ 2,602	$ 9	$10,001

(a) Holdings are diversified as follows: 17% United Kingdom, 10% Japan, 8% France, 7% Switzerland, 6% Ireland, 17% emerging markets and the remaining 35% with no concentration greater than 5% in any one country.

(b) There are no significant concentrations of holdings by company or industry.

(c) Includes approximately 77% investments in corporate debt with a S&P rating lower than A and 23% investments in corporate debt with a S&P rating A or higher. Holdings include 85% U.S. companies, 12% international companies and 3% emerging market companies.

(d) Includes approximately 32% investments in U.S. domestic government securities, 37% in emerging market government securities and 31% in international government securities. There are no significant foreign currency risks within this classification.

(e) Includes limited partnerships that invest primarily in U.S. (94%) and European (6%) buyout opportunities of a range of privately held companies. The pension plan's master trust does not have the right to redeem its limited partnership investment at its net asset value, but rather receives distributions as the underlying assets are liquidated. It is estimated that the underlying assets of these funds will be gradually liquidated over the next one to ten years.

Additionally, the pension plan’s master trust has future funding commitments of approximately $1.0 billion over the next ten years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

(f) Investment includes 45% in an emerging market 103-12 Investment Trust with investments in emerging country equity securities, 37% in a collective interest trust investing primarily in short-term securities, 12% in Canadian segregated balanced value, income growth and diversified pooled funds and 6% in a common/collective trust investing in securities of smaller companies located outside the U.S., including developing markets. For some trusts, requests for withdrawals must meet specific requirements with advance notice of redemption preferred.

(g) Certain investments that are measured using net asset value per share (or its equivalent) as a practical expedient for fair value have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the notes to the consolidated financial statements.

	Fair Value Measurements as of December 31, 2017			
Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Cash and cash equivalents	$28	$ —	$ —	$28
Equity securities:				
International markets [a] [b]	3,837	—	—	3,837
Large-cap companies [b]	2,451	—	—	2,451
Mid-cap companies [b]	744	—	—	744
Small-cap companies [b]	125	—	—	125
Fixed income:				
Corporate bonds [c]	—	2,344	—	2,344
Government securities [d]	—	238	—	238
U.S. municipal securities	—	39	—	39
Alternative instruments:				
Private market partnerships [e]	—	—	14	14
Private market partnerships measured at net asset value [e] [g]	—	—	—	879
Common/collective trusts [f]	—	315	—	315
Common/collective trusts and 103-12 Investment Trust measured at net asset value [f] [g]	—	—	—	283
Insurance group annuity contracts	—	—	2	2
Dividend and interest receivable	44	—	—	44
Due to/from brokers for sale of securities – net	3	—	—	3
Other liabilities – net	(6)	—	—	(6)
Total	$7,226	$ 2,936	$ 16	$11,340

(a) Holdings are diversified as follows: 17% United Kingdom, 11% Japan, 9% France, 6% Switzerland, 16% emerging markets and the remaining 41% with no concentration greater than 5% in any one country.

(b) There are no significant concentrations of holdings by company or industry.

(c) Includes approximately 76% investments in corporate debt with a S&P rating lower than A and 24% investments in corporate debt with a S&P rating A or higher. Holdings include 85% U.S. companies, 12% international companies and 3% emerging market companies.

(d)

Includes approximately 27% investments in U.S. domestic government securities, 43% in emerging market government securities and 30% in international government securities. There are no significant foreign currency risks within this classification.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

(e) Includes limited partnerships that invest primarily in U.S. (94%) and European (6%) buyout opportunities of a range of privately held companies. The pension plan's master trust does not have the right to redeem its limited partnership investment at its net asset value, but rather receives distributions as the underlying assets are liquidated. It is estimated that the underlying assets of these funds will be gradually liquidated over the next one to ten years. Additionally, the pension plan's master trust has future funding commitments of approximately $903 million over the next ten years.

(f) Investment includes 42% in a collective interest trust investing primarily in short-term securities, 40% in an emerging market 103-12 Investment Trust with investments in emerging country equity securities, 10% in Canadian segregated balanced value, income growth and diversified pooled funds and 8% in a common/collective trust investing in securities of smaller companies located outside the U.S., including developing markets. For some trusts, requests for withdrawals must meet specific requirements with advance notice of redemption preferred.

(g) Certain investments that are measured using net asset value per share (or its equivalent) as a practical expedient for fair value have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the notes to the consolidated financial statements.

Changes in fair value measurements of Level 3 investments during the year ended December 31, 2018, were as follows (in millions):

	Private Market Partnerships	Insurance Group Annuity Contracts
Beginning balance at December 31, 2017	$ 14	$ 2
Actual loss on plan assets:		
Relating to assets still held at the reporting date	(2)	—
Purchases	1	—
Sales	(6)	—
Ending balance at December 31, 2018	$ 7	$ 2

Changes in fair value measurements of Level 3 investments during the year ended December 31, 2017, were as follows (in millions):

	Private Market Partnerships	Insurance Group Annuity Contracts
Beginning balance at December 31, 2016	$ 21	$ 2
Actual loss on plan assets:		
Relating to assets still held at the reporting date	(4)	—
Purchases	1	—
Sales	(1)	—
Transfers out	(3)	—
Ending balance at December 31, 2017	$ 14	$ 2

The fair value of American's retiree medical and other postretirement benefits plans assets at December 31, 2018 by asset category, were as follows (in millions):

	Fair Value Measurements as of December 31, 2018			
Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total

	(Level 1)			
Money market fund	$4	$ —	$ —	$4
Mutual funds – AAL Class	—	221	—	221
Total	$4	$ 221	$ —	$225

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The fair value of American's retiree medical and other postretirement benefits plans assets at December 31, 2017 by asset category, were as follows (in millions):

	Fair Value Measurements as of December 31, 2017			
Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Money market fund	$5	$ —	$ —	$5
Mutual funds – AAL Class	—	290	—	290
Total	$5	$ 290	$ —	$295

Investments in the retiree medical and other postretirement benefits plans' mutual funds are valued by quoted prices on the active market, which is fair value and represents the net asset value of the shares of such funds as of the close of business at the end of the period. The AAL Class mutual fund restricts trading only to American, resulting in a fair value classification of Level 2. Investments included approximately 30% of investments in non-U.S. common stocks in both 2018 and 2017. Net asset value is based on the fair market value of the funds' underlying assets and liabilities at the date of determination.

Defined Contribution Plans

American contributed $856 million, $844 million and $761 million to its defined contribution plans for the years ended December 31, 2018, 2017 and 2016, respectively.

Profit Sharing Program

American accrues 5% of its pre-tax income excluding special items for its profit sharing program. For the year ended December 31, 2018, American accrued $175 million for this program, which will be distributed to employees in the first quarter of 2019.

9. Accumulated Other Comprehensive Loss

The components of AOCI are as follows (in millions):

	Pension, Retiree Medical and Other Postretirement Benefits	Unrealized Loss on Investments	Income Tax Benefit (Provision) [1]	Total
Balance at December 31, 2016	$ (4,394)	$ —	$ (788)	$(5,182)
Other comprehensive income (loss) before reclassifications	(27)	(1)	14	(14)
Amounts reclassified from AOCI	(87)	—	32 [2]	(55)
Net current-period other comprehensive income (loss)	(114)	(1)	46	(69)
Balance at December 31, 2017	(4,508)	(1)	(742)	(5,251)
Other comprehensive income (loss) before reclassifications	(61)	(4)	15	(50)
Amounts reclassified from AOCI	(89)	—	20 [2]	(69)
Net current-period other comprehensive income (loss)	(150)	(4)	35	(119)
Balance at December 31, 2018	$ (4,658)	$ (5)	$ (707)	$(5,370)

(1) Relates principally to pension, retiree medical and other postretirement benefits obligations that will not be recognized in net income until the obligations are fully extinguished.

(2)

Relates to pension, retiree medical and other postretirement benefits obligations and is recognized within the income tax provision on American's consolidated statements of operations.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

Reclassifications out of AOCI for the years ended December 31, 2018 and 2017 are as follows (in millions):

AOCI Components	Amounts reclassified from AOCI Year Ended December 31, 2018	2017	Affected line items on the consolidated statements of operations
Amortization of pension, retiree medical and other postretirement benefits:			
Prior service benefit	$ (161)	$ (132)	Nonoperating other income, net
Actuarial loss	92	77	Nonoperating other income, net
Total reclassifications for the period, net of tax	$ (69)	$ (55)	

Amounts allocated to other comprehensive income (OCI) for income taxes as further described in Note 5 will remain in AOCI until American ceases all related activities, such as termination of the pension plan.

10. Commitments, Contingencies and Guarantees

(a) Aircraft, Engine and Other Purchase Commitments

Under all of American's aircraft and engine purchase agreements, its total future commitments as of December 31, 2018 are expected to be as follows (approximately, in millions):

	2019	2020	2021	2022	2023	2024 and Thereafter	Total
Payments for aircraft commitments and certain engines [1]	$2,906	$1,683	$994	$1,378	$1,450	$ 6,047	$14,458

[1] These amounts are net of purchase deposits currently held by the manufacturers and include all commitments for regional aircraft. American has granted a security interest in certain of its purchase deposits with Boeing.

American's purchase deposits held by all manufacturers totaled $1.3 billion as of December 31, 2018.

Additionally, American has purchase commitments related to jet fuel, construction projects and information technology support as follows (approximately): $1.9 billion in 2019, $1.1 billion in 2020, $1.0 billion in 2021, $32 million in 2022 and $7 million in 2023.

(b) Capacity Purchase Agreements with Third-Party Regional Carriers

American has capacity purchase agreements with third-party regional carriers. The capacity purchase agreements provide that all revenues, including passenger, in-flight, ancillary, mail and freight revenues, go to American. In return, American agrees to pay predetermined fees to these airlines for operating an agreed-upon number of aircraft, without regard to the number of passengers on board. In addition, these agreements provide that American either reimburses or pays 100% of certain variable costs, such as airport landing fees, fuel and passenger liability insurance. American controls marketing, scheduling, ticketing, pricing and seat inventories.

As of December 31, 2018, American's capacity purchase agreements with third-party regional carriers had expiration dates ranging from 2019 to 2027, with rights of American to extend the respective terms of certain agreements. See Part I, Item 2. Properties for unaudited information on the aircraft operated by third-party regional carriers under such capacity purchase agreements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

As of December 31, 2018, American's minimum fixed obligations under its capacity purchase agreements with third-party regional carriers are as follows (approximately, in millions):

	2019	2020	2021	2022	2023	2024 and Thereafter	Total
Minimum fixed obligations under capacity purchase agreements with third-party regional carriers [1]	$1,101	$930	$765	$618	$487	$ 1,043	$4,944

(1) Represents minimum payments under capacity purchase agreements with third-party regional carriers, which are estimates of costs based on assumed minimum levels of flying under the capacity purchase agreements and American's actual payments could differ materially. Excludes payments for the lease of certain aircraft under capacity purchase agreements, which are reflected in the operating lease obligations in Note 4.

(c) Airport Redevelopment

Los Angeles International Airport (LAX)

In 2018, American executed a lease agreement with Los Angeles World Airports (LAWA), which owns and operates LAX, in connection with a $1.6 billion modernization project related to LAX Terminals 4 and 5. Construction will occur in a phased approach, which started in October 2018 and is expected to be completed in 2028. The modernization project will include a unified departure hall to combine the entranceway of Terminals 4 and 5, reconfigured ticket counter and check-in areas with seamless access to security screening areas, 16 security screening lanes with automated technology and upgraded amenities at gate areas. The project will also include renovated break rooms, multi-use meeting rooms and team gathering spaces throughout the terminals to support American's team members at LAX.

American is managing this project and has legal title to the assets during their construction. As each phase is completed, the assets will be sold and transferred to LAWA, including the site improvements and non-proprietary improvements. As American controls the assets during construction, they are recognized on its balance sheet until legal title has transferred. For 2018, American incurred approximately $7 million in costs relating to the LAX modernization project, which are included within operating property and equipment on its consolidated balance sheet as of December 31, 2018.

(d) Off-Balance Sheet Arrangements

Aircraft

American currently operates 389 owned aircraft and 88 leased aircraft which were financed with EETCs issued by pass-through trusts. These trusts are off-balance sheet entities, the primary purpose of which is to finance the acquisition of flight equipment. Rather than finance each aircraft separately when such aircraft is purchased, delivered or refinanced, these trusts allow American to raise the financing for a number of aircraft at one time and, if applicable, place such funds in escrow pending a future purchase, delivery or refinancing of the relevant aircraft. The trusts were also structured to provide for certain credit enhancements, such as liquidity facilities to cover certain interest payments, that reduce the risks to the purchasers of the trust certificates and, as a result, reduce the cost of aircraft financing to American.

Each trust covers a set number of aircraft scheduled to be delivered or refinanced upon the issuance of the EETC or within a specific period of time thereafter. At the time of each covered aircraft financing, the relevant trust used the proceeds of the issuance of the EETC (which may have been available at the time of issuance thereof or held in escrow until financing of the applicable aircraft following its delivery) to purchase equipment notes relating to the financed aircraft. The equipment notes are issued, at American's election, in connection with a mortgage financing of the aircraft or, in certain cases, by a separate owner trust in connection with a leveraged lease financing of the aircraft. In the case of a leveraged lease financing, the owner trust then leases the aircraft to American. In both cases, the equipment notes are secured by a security interest in the aircraft. The pass-through trust certificates are not direct obligations of, nor are they guaranteed by, AAG or American. However, in the case of mortgage financings, the equipment notes issued to the trusts are direct obligations of American and, in certain instances, have been guaranteed

by AAG. As of December 31, 2018, $11.6 billion associated with these mortgage financings is reflected as debt in the accompanying consolidated balance sheet.

With respect to leveraged leases, American evaluated whether the leases had characteristics of a variable interest entity. American concluded the leasing entities met the criteria for variable interest entities. American generally is not the primary beneficiary of the leasing entities if the lease terms are consistent with market terms at the inception of the lease and do not include a residual value guarantee, fixed-price purchase option or similar feature that obligates American to absorb decreases

in value or entitles American to participate in increases in the value of the aircraft. American does not provide residual value guarantees to the bondholders or equity participants in the trusts. Some leases have a fair market value or a fixed price purchase option that allows American to purchase the aircraft at or near the end of the lease term. However, the option price approximates an estimate of the aircraft's fair value at the option date. Under this feature, American does not participate in any increases in the value of the aircraft. American concluded it is not the primary beneficiary under these arrangements. Therefore, American accounts for the majority of its EETC leveraged lease financings as operating leases. American's total future payments to the trusts of each of the relevant EETCs under these leveraged lease financings are $352 million as of December 31, 2018, which are reflected in the operating lease obligations in Note 4.

Letters of Credit and Other

American provides financial assurance, such as letters of credit, surety bonds or restricted cash and investments, primarily to support projected workers' compensation obligations and airport commitments. As of December 31, 2018, American had $460 million of letters of credit and surety bonds securing various obligations. The letters of credit and surety bonds that are subject to expiration will expire on various dates through 2022.

(e) Legal Proceedings

Chapter 11 Cases. On November 29, 2011, AMR, American, and certain of AMR's other direct and indirect domestic subsidiaries (the Debtors) filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for the Southern District of New York (the Bankruptcy Court). On October 21, 2013, the Bankruptcy Court entered an order approving and confirming the Debtors' fourth amended joint plan of reorganization (as amended, the Plan). On the Effective Date, December 9, 2013, the Debtors consummated their reorganization pursuant to the Plan and completed the Merger.

Pursuant to rulings of the Bankruptcy Court, the Plan established the Disputed Claims Reserve to hold shares of AAG common stock reserved for issuance to disputed claimholders at the Effective Date that ultimately become holders of allowed claims. The shares of AAG common stock issued to the Disputed Claims Reserve were originally issued on December 13, 2013 and have at all times since been included in the number of shares issued and outstanding as reported by AAG from time to time in its quarterly and annual reports, including for purposes of calculating earnings per share. As disputed claims are resolved, the claimants will receive distributions of shares from the Disputed Claims Reserve. However, American is not required to distribute additional shares above the limits contemplated by the Plan, even if the shares remaining for distribution in the Disputed Claims Reserve are not sufficient to fully pay any additional allowed unsecured claims. To the extent that any of the reserved shares remain undistributed upon resolution of all remaining disputed claims, such shares will not be returned to AAG but rather will be distributed to former AMR stockholders and former convertible noteholders treated as stockholders under the Plan. On February 12, 2019, in accordance with the approval granted by the Bankruptcy Court on December 6, 2018, an aggregate of approximately 17.3 million shares of AAG common stock were distributed from the Disputed Claims Reserve to former AMR shareholders and convertible noteholders. After giving effect to this distribution, the Disputed Claims Reserve holds approximately 7.2 million shares of AAG common stock.

Private Party Antitrust Action Related to Passenger Capacity. American, along with Delta Air Lines, Inc., Southwest Airlines Co., United Airlines, Inc. and, in the case of litigation filed in Canada, Air Canada, have been named as defendants in approximately 100 putative class action lawsuits alleging unlawful agreements with respect to air passenger capacity. The U.S. lawsuits have been consolidated in the Federal District Court for the District of Columbia (the DC Court). On June 15, 2018, American reached a preliminary settlement agreement with the plaintiffs in the amount of $45 million that, once approved, will resolve all claims in the U.S. lawsuits. That settlement received preliminary approval from the DC Court on June 18, 2018.

Private Party Antitrust Action Related to the Merger. On August 6, 2013, a lawsuit captioned Carolyn Fjord, et al., v. AMR Corporation, et al., was filed in the United States Bankruptcy Court for the Southern District of New York. The complaint named as defendants US Airways Group, US Airways, AMR and American, alleged that the effect of the Merger may be to create a monopoly in violation of Section 7 of the Clayton Antitrust Act, and sought injunctive

relief and/or divestiture. On November 27, 2013, the Bankruptcy Court denied plaintiffs' motion to preliminarily enjoin the Merger. On August 29, 2018, the Court denied in part defendants' motion for summary judgment, and fully denied plaintiffs' cross-motion for summary judgment. A bench trial is presently scheduled for March 2019. American believes this lawsuit is without merit and intends to vigorously defend against the allegations.

DOJ Investigation Related to the United States Postal Service. In April 2015, the Department of Justice (DOJ) informed American of an inquiry regarding American's 2009 and 2011 contracts with the United States Postal Service for the international transportation of mail by air. In October 2015, American received a Civil Investigative Demand from the DOJ seeking certain

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

information relating to these contracts and the DOJ has also sought information concerning certain of the airlines that transport mail on a codeshare basis. The DOJ has indicated it is investigating potential violations of the False Claims Act or other statutes. American is cooperating fully with the DOJ with regard to its investigation.

General. In addition to the specifically identified legal proceedings, American and its subsidiaries are also engaged in other legal proceedings from time to time. Legal proceedings can be complex and take many months, or even years, to reach resolution, with the final outcome depending on a number of variables, some of which are not within American's control. Therefore, although American will vigorously defend itself in each of the actions described above and such other legal proceedings, their ultimate resolution and potential financial and other impacts on American are uncertain but could be material. See Part I, Item 1A. Risk Factors –"We may be a party to litigation in the normal course of business or otherwise, which could affect our financial position and liquidity" for additional discussion.

(f) Guarantees and Indemnifications

American is a party to many routine contracts in which it provides general indemnities in the normal course of business to third parties for various risks. American is not able to estimate the potential amount of any liability resulting from the indemnities. These indemnities are discussed in the following paragraphs.

In its aircraft financing agreements, American generally indemnifies the financing parties, trustees acting on their behalf and other relevant parties against liabilities (including certain taxes) resulting from the financing, manufacture, design, ownership, operation and maintenance of the aircraft regardless of whether these liabilities (including certain taxes) relate to the negligence of the indemnified parties.

American's loan agreements and other LIBOR-based financing transactions (including certain leveraged aircraft leases) generally obligate American to reimburse the applicable lender for incremental costs due to a change in law that imposes (i) any reserve or special deposit requirement against assets of, deposits with or credit extended by such lender related to the loan, (ii) any tax, duty or other charge with respect to the loan (except standard income tax) or (iii) capital adequacy requirements. In addition, American's loan agreements and other financing arrangements typically contain a withholding tax provision that requires American to pay additional amounts to the applicable lender or other financing party, generally if withholding taxes are imposed on such lender or other financing party as a result of a change in the applicable tax law.

In certain transactions, including certain aircraft financing leases and loans, the lessors, lenders and/or other parties have rights to terminate the transaction based on changes in foreign tax law, illegality or certain other events or circumstances. In such a case, American may be required to make a lump sum payment to terminate the relevant transaction.

American has general indemnity clauses in many of its airport and other real estate leases where American as lessee indemnifies the lessor (and related parties) against liabilities related to American's use of the leased property. Generally, these indemnifications cover liabilities resulting from the negligence of the indemnified parties, but not liabilities resulting from the gross negligence or willful misconduct of the indemnified parties. In addition, American provides environmental indemnities in many of these leases for contamination related to American's use of the leased property.

Under certain contracts with third parties, American indemnifies the third-party against legal liability arising out of an action by the third-party, or certain other parties. The terms of these contracts vary and the potential exposure under these indemnities cannot be determined. American has liability insurance protecting American for some of the obligations it has undertaken under these indemnities.

American is required to make principal and interest payments for certain special facility revenue bonds issued by municipalities primarily to build or improve airport facilities and purchase equipment, which are leased to American. The payment of principal and interest of certain special facility revenue bonds is guaranteed by American. As of December 31, 2018, the remaining lease payments through 2035 guaranteeing the principal and interest on these bonds are $588 million and the current carrying amount of the associated operating lease liability in the accompanying consolidated balance sheet is $321 million.

As of December 31, 2018, American had issued guarantees covering AAG's $750 million aggregate principal amount of 5.50% senior notes due 2019 and $500 million aggregate principal amount of 4.625% senior notes due 2020.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

(g) Credit Card Processing Agreements

American has agreements with companies that process customer credit card transactions for the sale of air travel and other services. American's agreements allow these credit card processing companies, under certain conditions, to hold an amount of its cash (referred to as a holdback) equal to a portion of advance ticket sales that have been processed by that company, but for which American has not yet provided the air transportation. Additional holdback requirements in the event of material adverse changes in American's financial condition will reduce its liquidity in the form of unrestricted cash by the amount of the holdbacks. These credit card processing companies are not currently entitled to maintain any holdbacks pursuant to these requirements.

(h) Labor Negotiations

As of December 31, 2018, American employed approximately 102,900 active full-time equivalent employees. Approximately 84% of employees are covered by collective bargaining agreements (CBAs) with various labor unions and approximately 24% of employees are covered by CBAs that will become amendable within one year. Negotiations are continuing for joint collective bargaining agreements (JCBAs) covering American's maintenance, fleet service, stock clerks, maintenance control technicians and maintenance training instructors. Additionally, the post-Merger JCBAs covering American's pilots and flight attendants, while not yet amendable, provide the unions with the right to elect to commence negotiations for new collective bargaining agreements in advance of each JCBA's amendable date. Each of the unions has exercised these rights and negotiations are underway for new agreements as described in Part I, Item 1. Business - "Employees and Labor Relations". There is no assurance that a successful or timely resolution of these labor negotiations will be achieved.

11. Supplemental Cash Flow Information

Supplemental disclosure of cash flow information and non-cash investing and financing activities are as follows (in millions):

	Year Ended December 31,		
	2018	2017	2016
Non-cash investing and financing activities:			
Equity investment	$ —	$ 120	$ —
Settlement of bankruptcy obligations	—	15	3
Supplemental information:			
Interest paid, net	1,009	942	867
Income taxes paid	16	18	14

12. Operating Segments and Related Disclosures

American is managed as a single business unit that provides air transportation for passengers and cargo. This allows it to benefit from an integrated revenue pricing and route network that includes American and AAG's wholly-owned and third-party regional carriers that fly under capacity purchase agreements operating as American Eagle. The flight equipment of all these carriers is combined to form one fleet that is deployed through a single route scheduling system. Financial information and annual operational plans and forecasts are prepared and reviewed by the chief operating decision maker at the consolidated level. When making operational decisions, the chief operating decision maker evaluates flight profitability data, which considers aircraft type and route economics, but is indifferent to the results of the individual regional carriers. The objective in making operational decisions is to maximize consolidated financial results, not the individual results of American or American Eagle.

See Note 1(k) for American's passenger revenues by geographic region. American's tangible assets consist primarily of flight equipment, which are mobile across geographic markets and, therefore, have not been allocated.

13. Share-based Compensation

The 2013 AAG Incentive Award Plan (the 2013 Plan) provides that awards may be in the form of an option, restricted stock award, restricted stock unit award, performance award, dividend equivalent award, deferred stock award, deferred stock unit award, stock payment award or stock appreciation right. The 2013 Plan initially authorized the grant of awards for the issuance of up to 40 million shares. Any shares underlying awards granted under the 2013

Plan, or any pre-existing US Airways Group plan, that are forfeited, terminate or are settled in cash (in whole or in part) without the delivery of shares will again be available for grant.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

American's salaries, wages and benefits expense for the years ended December 31, 2018, 2017 and 2016 included $88 million, $90 million and $102 million, respectively, of share-based compensation costs.

During 2018, 2017 and 2016, AAG withheld approximately 0.8 million, 1.1 million and 1.4 million shares of AAG common stock, respectively, and paid approximately $37 million, $51 million and $56 million, respectively, in satisfaction of certain tax withholding obligations associated with employee equity awards.

Restricted Stock Unit Awards (RSUs)

AAG has granted RSUs with service conditions (time vested primarily over three years) and performance conditions. The grant-date fair value of RSUs is equal to the market price of the underlying shares of AAG common stock on the date of grant. For time vested awards, the expense is recognized on a straight-line basis over the vesting period for the entire award. For awards with performance conditions, the expense is recognized based on the expected achievement at each reporting period. Stock-settled RSUs are classified as equity awards as the vesting results in the issuance of shares of AAG common stock.

Stock-settled RSU award activity for all plans for the years ended December 31, 2018, 2017 and 2016 is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
	(In thousands)	
Outstanding at December 31, 2015	5,607	$ 38.08
Granted	2,655	41.34
Vested and released	(2,754)	34.83
Forfeited	(321)	40.15
Outstanding at December 31, 2016	5,187	$ 41.48
Granted	2,309	48.58
Vested and released	(2,708)	39.63
Forfeited	(464)	44.48
Outstanding at December 31, 2017	4,324	$ 46.94
Granted	2,194	47.65
Vested and released	(1,999)	44.99
Forfeited	(199)	45.72
Outstanding at December 31, 2018	4,320	$ 44.29

As of December 31, 2018, there was $111 million of unrecognized compensation cost related to stock-settled RSUs. These costs are expected to be recognized over a weighted average period of one year. The total fair value of stock-settled RSUs vested during the years ended December 31, 2018, 2017 and 2016 was $91 million, $123 million and $107 million, respectively.

14. Valuation and Qualifying Accounts (in millions)

	Balance at Beginning of Year	Additions Charged to Statement of Operations Accounts	Deductions	Balance at End of Year
Allowance for obsolescence of spare parts				
Year ended December 31, 2018	$ 717	$ 57	$ (20)	$ 754
Year ended December 31, 2017	720	18	(21)	717
Year ended December 31, 2016	689	28	3	720
Allowance for uncollectible accounts				

Year ended December 31, 2018	$ 21	$ 39	$ (36)	$ 24
Year ended December 31, 2017	35	41	(55)	21
Year ended December 31, 2016	37	47	(49)	35

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

15. Quarterly Financial Data (Unaudited)

Unaudited summarized financial data by quarter for 2018 and 2017 (in millions):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2018 [1]				
Operating revenues	$ 10,398	$ 11,640	$ 11,556	$ 10,936
Operating expenses	9,986	10,626	10,850	10,344
Operating income	412	1,014	706	592
Net income	209	609	433	407
2017				
Operating revenues	$ 9,817	$ 11,224	$ 10,962	$ 10,607
Operating expenses	9,077	9,633	9,713	9,982
Operating income	740	1,591	1,249	625
Net income (loss)	369	888	686	(658)

(1) In the fourth quarter of 2018, American adopted the New Lease Standard as of January 1, 2018. In accordance with the New Lease Standard, prior 2018 periods have been recast to reflect the effects of this adoption. See Note 1(b) and Note 4 for further discussion of the New Lease Standard.

American's fourth quarter 2018 results include $220 million of total net special items that principally included $146 million of fleet restructuring expenses, $81 million of merger integration expenses, $37 million of severance costs associated with reductions of management and support staff team members, $22 million of mark-to-market net unrealized losses associated with certain equity investments, offset in part by a $37 million net credit resulting from mark-to-market adjustments on bankruptcy obligations and a $22 million income tax credit as a result of the reversal of the valuation allowance previously recognized in the first quarter of 2018 related to American's estimated refund for AMT credits, which is no longer subject to sequestration.

American's fourth quarter 2017 results include $1.2 billion of total net special items that principally included a $123 million charge for the $1,000 cash bonus and associated payroll taxes granted to mainline employees as of December 31, 2017 in recognition of the 2017 Tax Act, $81 million of merger integration expenses, $58 million of fleet restructuring expenses, a $20 million net charge resulting from mark-to-market adjustments on bankruptcy obligations and a $924 million special non-cash charge to reflect the impact of lower corporate income tax rates on the Company's deferred tax asset and liabilities due to the 2017 Tax Act, which reduced the federal corporate income tax rate from 35% to 21%.

16. Transactions with Related Parties

The following represents the net receivables (payables) to related parties (in millions):

	December 31,	
	2018	2017
AAG [1]	$12,808	$10,968
AAG's wholly-owned subsidiaries [2]	(2,142)	(2,146)
Total	$10,666	$8,822

(1) The increase in American's net related party receivable from AAG is primarily due to American providing the cash funding for AAG's share repurchase and dividend programs.

(2) The net payable to AAG's wholly-owned subsidiaries consists primarily of amounts due under regional capacity purchase agreements with AAG's wholly-owned regional airlines operating under the brand name of American Eagle.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS OF AMERICAN AIRLINES, INC.

Pursuant to a capacity purchase agreement between American and AAG's wholly-owned regional airlines operating as American Eagle, American purchases all of the capacity from these carriers and recognizes passenger revenue from flights operated by American Eagle. In 2018, 2017 and 2016, American recognized expense of approximately $1.8 billion, $1.7 billion and $1.5 billion, respectively, related to wholly-owned regional airline capacity purchase agreements.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Management's Evaluation of Disclosure Controls and Procedures

The term "disclosure controls and procedures" is defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the Exchange Act). This term refers to the controls and procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files under the Exchange Act is recorded, processed, summarized and reported within the time periods specified by the SEC's rules and forms, and is accumulated and communicated to management, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), as appropriate to allow timely decisions regarding required disclosure. An evaluation of the effectiveness of AAG's and American's disclosure controls and procedures as of December 31, 2018 was performed under the supervision and with the participation of AAG's and American's management, including AAG's and American's CEO and CFO. Based on that evaluation, AAG's and American's management, including AAG's and American's CEO and CFO, concluded that AAG's and American's disclosure controls and procedures were effective as of December 31, 2018 at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

On December 9, 2013, AAG acquired US Airways Group and its subsidiaries. We are still in the process of integrating certain processes, technology and operations for the post-Merger combined company, and we will continue to evaluate the impact of any related changes to our internal control over financial reporting. In connection with the adoption on January 1, 2018 of the New Revenue Standard and the adoption in the fourth quarter of 2018, of the New Lease Standard as of January 1, 2018, we modified certain processes and implemented internal controls related to our loyalty program and leases, respectively. The operating effectiveness of these changes was evaluated as part of our December 31, 2018 annual assessment of internal control over financial reporting. Except as described above, for the three months ended December 31, 2018, there have been no changes in AAG's or American's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, AAG's and American's internal control over financial reporting.

Limitation on the Effectiveness of Controls

We believe that a controls system, no matter how well designed and operated, cannot provide absolute assurance that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives, and, as noted above, the CEO and CFO of AAG and American believe that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2018.

Management's Annual Report on Internal Control over Financial Reporting

Management of AAG and American is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. AAG's and American's 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 GAAP. AAG's and American's internal control over financial reporting includes policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of AAG or American, respectively;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of AAG or American are being made only in accordance with authorizations of management and directors of AAG or American, respectively; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of AAG's or American'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.

Management assessed the effectiveness of AAG's and American's internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in its Internal Control – Integrated Framework (2013 Framework).

Based on our assessment and those criteria, AAG's and American's management concludes that AAG and American, respectively, maintained effective internal control over financial reporting as of December 31, 2018.

AAG's and American's independent registered public accounting firm has issued an attestation report on the effectiveness of AAG's and American's internal control over financial reporting. That report has been included herein.

Report of Independent Registered Public Accounting Firm
To the Stockholders and Board of Directors
American Airlines Group Inc.:

Opinion on Internal Control Over Financial Reporting
We have audited American Airlines Group Inc.'s and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.
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, 2018 and 2017, the related consolidated statements of operations, comprehensive income, cash flows, and stockholders' equity for each of the years in the three year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements), and our report dated February 25, 2019 expressed an unqualified opinion on those consolidated financial statements.
Basis for Opinion
The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's 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 of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.
Definition and Limitations of Internal Control Over Financial Reporting
A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.
Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

Dallas, Texas
February 25, 2019

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Report of Independent Registered Public Accounting Firm
To the Stockholder and Board of Directors
American Airlines, Inc.:

Opinion on Internal Control Over Financial Reporting
We have audited American Airlines, Inc.'s and subsidiaries' (American) internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, American maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.
We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of American as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income, cash flows, and stockholder's equity for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements), and our report dated February 25, 2019 expressed an unqualified opinion on those consolidated financial statements.
Basis for Opinion
American'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 American'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 American 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 of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.
Definition and Limitations of Internal Control Over Financial Reporting
A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.
Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP
Dallas, Texas

February 25, 2019

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PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Except as stated below, the information required by this Item will be set forth in the Proxy Statement under the captions “Proposal 1 – Election of Directors,” “Executive Officers,” “Section 16(a) Beneficial Ownership Reporting Compliance,” “Board Composition” and “Information About the Board of Directors and Corporate Governance” and is incorporated by reference into this Annual Report on Form 10-K.

American Airlines Group and American have adopted Standards of Business Conduct (the Ethics Standards) within the meaning of Item 406(b) of Regulation S-K. The Ethics Standards apply to all officers and employees of American Airlines Group Inc. and its subsidiaries, including American. The Ethics Standards are available on our website at www.aa.com. If we make substantive amendments to the Ethics Standards or grant any waiver, including any implicit waiver, to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, we will disclose the nature of such amendment or waiver on our website or in a Current Report on Form 8-K in accordance with applicable rules and regulations.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item will be set forth in the Proxy Statement under the captions “Information About the Board of Directors and Corporate Governance - Risk Assessment with Respect to Compensation Practices,” “Director Compensation,” “Compensation Discussion and Analysis,” “Executive Compensation” and “Compensation Committee Report” and is incorporated by reference into this Annual Report on Form 10-K.

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

The information required by this Item will be set forth in the Proxy Statement under the captions “Security Ownership of Certain Beneficial Owners and Management” and “Equity Compensation Plan Information” and is incorporated by reference into this Annual Report on Form 10-K.

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

The information required by this Item will be set forth in the Proxy Statement under the captions “Certain Relationships and Related Party Transactions” and “Information About the Board of Directors and Corporate Governance” and is incorporated by reference into this Annual Report on Form 10-K.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item will be set forth in the Proxy Statement under the caption “Proposal 2 – Ratification of Appointment of Independent Registered Public Accounting Firm” and is incorporated by reference into this Annual Report on Form 10-K.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

Consolidated Financial Statements

The following consolidated financial statements of American Airlines Group Inc. and Independent Auditors' Report are filed as part of this report:

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The following consolidated financial statements of American Airlines, Inc. and Independent Auditors' Report are filed as part of this report:

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Schedules not included have been omitted because they are not applicable or because the required information is included in the Consolidated Financial Statements or notes thereto.

Exhibits

Exhibits required to be filed by Item 601 of Regulation S-K: Where the amount of securities authorized to be issued under any of our long-term debt agreements does not exceed 10 percent of our assets, pursuant to paragraph (b)(4) of Item 601 of Regulation S-K, in lieu of filing such as an exhibit, we hereby agree to furnish to the Commission upon request a copy of any agreement with respect to such long-term debt.

Exhibit Number	Description
2.1	Confirmation Order and Plan (incorporated by reference to Exhibit 2.1 to AMR's Current Report on Form 8-K filed on October 23, 2013 (Commission File No. 1-8400)).
2.2	Agreement and Plan of Merger, dated as of February 13, 2013, among AMR Corporation, AMR Merger Sub, Inc. and US Airways Group, Inc. (incorporated by reference to Exhibit 2.1 to US Airways Group's Current Report on Form 8-K/A filed on February 14, 2013 (Commission File No. 1-8444)).#
2.3	Amendment to Agreement and Plan of Merger, dated as of May 15, 2013, among AMR Corporation, AMR Merger Sub, Inc. and US Airways Group, Inc. (incorporated by reference to Exhibit 2.1 to US Airways Group's Current Report on Form 8-K filed on May 16, 2013 (Commission File No. 1-8444)).
2.4	Second Amendment to Agreement and Plan of Merger, dated as of June 7, 2013, among AMR Corporation, AMR Merger Sub, Inc. and US Airways Group, Inc. (incorporated by reference to Exhibit 2.1 to US Airways Group's Current Report on Form 8-K filed on June 12, 2013 (Commission File No. 1-8444)).
2.5	Third Amendment to Agreement and Plan of Merger, dated as of September 20, 2013, among AMR Corporation, AMR Merger Sub, Inc. and US Airways Group, Inc. (incorporated by reference to Exhibit 2.1 to US Airways Group's Current Report on Form 8-K filed on September 23, 2013 (Commission File No. 1-8444)).
2.6	Agreement and Plan of Merger, dated as of December 28, 2015, between American Airlines, Inc. and US Airways, Inc. (incorporated by reference to Exhibit 2.1 to AAG's Current Report on Form 8-K filed on December 31, 2015 (Commission File No. 1-8400)).
3.1	Restated Certificate of Incorporation of American Airlines Group Inc., including the Certificate of Designations, Powers, Preferences and Rights of the American Airlines Group Inc. Series A Convertible Preferred Stock attached as Annex I thereto (incorporated by reference to Exhibit 3.1 to AAG's Current Report on Form 8-K filed on December 9, 2013 (Commission File No. 1-8400)).
3.2	Certificate of Amendment of Restated Certificate of Incorporation of American Airlines Group Inc. (incorporated by reference to Exhibit 3.1 to American Airlines Group Inc.'s Current Report on Form 8-K filed on June 13, 2018 (Commission File No. 1-8400)).
3.3	Third Amended and Restated Bylaws of American Airlines Group Inc. (incorporated by reference to Exhibit 3.2 to American Airlines Group Inc.'s Current Report on Form 8-K filed on June 13, 2018 (Commission File No. 1-8400)).
3.4	Amended and Restated Certificate of Incorporation of American Airlines, Inc. (incorporated by reference to Exhibit 3.3 to AAG's Annual Report on Form 10-K for the year ended December 31, 2013 (Commission File No. 1-8400)).
3.5	Amended and Restated Bylaws of American Airlines, Inc. (incorporated by reference to Exhibit 3.4 to AAG's Annual Report on Form 10-K for the year ended December 31, 2013 (Commission File No. 1-8400)).
4.1	Pass Through Trust Agreement, dated as of March 12, 2013, between American Airlines, Inc. and Wilmington Trust Company (incorporated by reference to Exhibit 4.1 to AMR's Current Report on Form 8-K filed on March 12, 2013 (Commission File No. 1-8400)).
4.2	Trust Supplement No. 2013-2B, dated as of November 27, 2013, among American Airlines, Inc. and Wilmington Trust Company, as Class B Trustee, to the Pass Through Trust Agreement, dated as of March 12, 2013 (incorporated by reference to Exhibit 4.2 to AMR's Current Report on Form 8-K filed on November 27, 2013 (Commission File No. 1-8400)).
4.3	Form of Pass Through Trust Certificate, Series 2013-2B (included in Exhibit A to Exhibit 4.2) (incorporated by reference to Exhibit 4.3 to AMR's Current Report on Form 8-K filed on November 27, 2013 (Commission

	File No. 1-8400)).
4.4	Revolving Credit Agreement (2013-2B), dated as of November 27, 2013, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for Trustee of American Airlines Pass Through Trust 2013-2B and as Borrower, and Morgan Stanley Bank, N.A., as Class B Liquidity Provider (incorporated by reference to Exhibit 4.5 to AMR's Current Report on Form 8-K filed on November 27, 2013 (Commission File No. 1-8400)).
4.5	Participation Agreement (N907AN), dated as of September 9, 2013, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements in effect as of the date thereof, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein (incorporated by reference to Exhibit 4.6 to AMR's Current Report on Form 8-K filed on November 27, 2013 (Commission File No. 1-8400)).

Exhibit Number	Description
4.6	Indenture and Security Agreement (N907AN), dated as of September 9, 2013, between American Airlines, Inc. and Wilmington Trust Company, as Loan Trustee (incorporated by reference to Exhibit 4.7 to AMR's Current Report on Form 8-K filed on November 27, 2013 (Commission File No. 1-8400)).
4.7	First Amendment to Participation Agreement (N907AN), dated as of November 27, 2013, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein (incorporated by reference to Exhibit 4.8 to AMR's Current Report on Form 8-K filed on November 27, 2013 (Commission File No. 1-8400)).
4.8	First Amendment to Indenture and Security Agreement (N907AN), dated as of November 27, 2013, between American Airlines, Inc. and Wilmington Trust Company, as Loan Trustee (incorporated by reference to Exhibit 4.9 to AMR's Current Report on Form 8-K filed on November 27, 2013 (Commission File No. 1-8400)).
4.9	Series 2013-2A N907AN Equipment Note No. 1, dated as of September 9, 2013 (incorporated by reference to Exhibit 4.10 to AMR's Current Report on Form 8-K filed on November 27, 2013 (Commission File No. 1-8400)).
4.10	Series 2013-2B N907AN Equipment Note No. 1, dated as of November 27, 2013 (incorporated by reference to Exhibit 4.11 to AMR's Current Report on Form 8-K filed on November 27, 2013 (Commission File No. 1-8400)).
4.11	Schedule I (Pursuant to Instruction 2 to Item 601 of Regulation S-K, this Schedule I contains a list of documents applicable to the financing of the Aircraft in connection with the offering of the Class B Certificates, which documents are substantially identical to those filed herewith as Exhibits 4.6, 4.7, 4.8, 4.9 and 4.10. Schedule I sets forth the details by which such documents differ from the corresponding Exhibits) (incorporated by reference to Exhibit 99.2 to AMR's Current Report on Form 8-K filed on November 27, 2013 (Commission File No. 1-8400)).
4.12	Amended and Restated Intercreditor Agreement (2013-2), dated as of December 20, 2013, among Wilmington Trust Company, as Trustee of American Airlines Pass Through Trust 2013-2A, American Airlines Pass Through Trust 2013-2B and American Airlines Pass Through Trust 2013-2C, Morgan Stanley Bank, N.A., as Class A Liquidity Provider and as Class B Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.4 to AMR's Current Report on Form 8-K filed on December 20, 2013 (Commission File No. 1-8400)).
4.13	Second Amendment to Participation Agreement (N907AN), dated as of December 20, 2013, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein (incorporated by reference to Exhibit 4.9 to AMR's Current Report on Form 8-K filed on December 20, 2013 (Commission File No. 1-8400)).
4.14	Second Amendment to Indenture and Security Agreement (N907AN), dated as of December 20, 2013, between American Airlines, Inc. and Wilmington Trust Company, as Loan Trustee (incorporated by reference to Exhibit 4.10 to AMR's Current Report on Form 8-K filed on December 20, 2013 (Commission File No. 1-8400)).
4.15	Indenture, dated as of May 24, 2013, between American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.) and Wilmington Trust, National Association, as Trustee (incorporated by reference to Exhibit 4.1 to US Airways Group's Current Report on Form 8-K filed on May 24, 2013 (Commission File No. 1-8444)).
4.16	First Supplemental Indenture, dated as of May 24, 2013, among American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.), American Airlines, Inc. (as successor in interest to US Airways, Inc.)

	and Wilmington Trust, National Association, as Trustee (incorporated by reference to Exhibit 4.2 to US Airways Group's Current Report on Form 8-K filed on May 24, 2013 (Commission File No. 1-8444)).
4.17	Second Supplemental Indenture dated as of December 9, 2013, among American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.) and Wilmington Trust, National Association, as trustee, to the Indenture, dated as of May 24, 2013 (incorporated by reference to Exhibit 4.1 to AAG's Current Report on Form 8-K filed on December 9, 2013 (Commission File No. 1-8400)).
4.18	Third Supplemental Indenture, dated as of December 30, 2015, among American Airlines Group Inc., American Airlines, Inc. and Wilmington Trust, National Association, as trustee, to the Indenture dated as of May 24, 2013 (incorporated by reference to Exhibit 4.1 to AAG's Current Report on Form 8-K filed on December 31, 2015 (Commission File No. 1-8400)).
4.19	Pass Through Trust Agreement, dated as of September 16, 2014, between American Airlines, Inc. and Wilmington Trust Company, as Trustee (incorporated by reference to Exhibit 4.1 to American's Current Report on Form 8-K filed on September 17, 2014 (Commission File No. 1-2691)).
4.20	Trust Supplement No. 2014-1A, dated as of September 16, 2014, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on September 17, 2014 (Commission File No. 1-2691)).

Exhibit Number	Description
4.21	Trust Supplement No. 2014-1B, dated as of September 16, 2014, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on September 17, 2014 (Commission File No. 1-2691)).
4.22	Intercreditor Agreement (2014-1), dated as of September 16, 2014, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2014-1A and as Trustee of the American Airlines Pass Through Trust 2014-1B, Crédit Agricole Corporate and Investment Bank, acting through its New York Branch, as Class A Liquidity Provider and Class B Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.4 to American's Current Report on Form 8-K filed on September 17, 2014 (Commission File No. 1-2691)).
4.23	Amendment No. 1 to Intercreditor Agreement (2014-1), dated as of June 24, 2015, among American Airlines, Inc., Credit Agricole Corporate and Investment Bank, as Class A and Class B liquidity provider and Wilmington Trust Company, as subordination agent and trustee (incorporated by reference to Exhibit 10.6 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (Commission File No. 1-8400)).
4.24	Note Purchase Agreement, dated as of September 16, 2014, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust, National Association, as Escrow Agent, and Wilmington Trust Company, as Paying Agent (incorporated by reference to Exhibit 4.9 to American's Current Report on Form 8-K filed on September 17, 2014 (Commission File No. 1-2691)).
4.25	Form of Participation Agreement (Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (Exhibit B to Note Purchase Agreement) (incorporated by reference to Exhibit 4.10 to American's Current Report on Form 8-K filed on September 17, 2014 (Commission File No. 1-2691)).
4.26	Form of Indenture and Security Agreement (Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (Exhibit C to Note Purchase Agreement) (incorporated by reference to Exhibit 4.11 to American's Current Report on Form 8-K filed on September 17, 2014 (Commission File No. 1-2691)).
4.27	Revolving Credit Agreement (2014-1A), dated as of September 16, 2014, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2014-1A, as Borrower, and Crédit Agricole Corporate and Investment Bank, acting through its New York Branch, as Liquidity Provider (incorporated by reference to Exhibit 4.14 to American's Current Report on Form 8-K filed on September 17, 2014 (Commission File No. 1-2691)).
4.28	Revolving Credit Agreement (2014-1B), dated as of September 16, 2014, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2014-1B, as Borrower, and Crédit Agricole Corporate and Investment Bank, acting through its New York Branch, as Liquidity Provider (incorporated by reference to Exhibit 4.15 to American's Current Report on Form 8-K filed on September 17, 2014 (Commission File No. 1-2691)).
4.29	Indenture, dated as of September 25, 2014, among American Airlines Group Inc., the Guarantors (as defined therein) and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 4.1 to AAG's Current Report on Form 8-K filed on September 26, 2014 (Commission File No. 1-8400)).
4.30	First Supplemental Indenture, dated as of December 30, 2015, among American Airlines Group Inc., American Airlines, Inc. and Wilmington Trust, National Association, as trustee, to the Indenture dated as of September 25, 2014 (incorporated by reference to Exhibit 4.2 to AAG's Current Report on Form 8-K filed on December 31, 2015 (Commission File No. 1-8400)).
4.31	

	Indenture, dated as of March 5, 2015, among American Airlines Group Inc., the Guarantors (as defined therein) and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 4.1 to AAG's Current Report on Form 8-K filed on March 12, 2015 (Commission File No. 1-8400)).
4.32	Form of 6.125% Senior Notes due 2018 (incorporated by reference to Exhibit A to Exhibit 4.2 to US Airways Group's Current Report on Form 8-K filed on May 24, 2013 (Commission File No. 1-8444)).
4.33	Form of 5.50% Senior Notes due 2019 (incorporated by reference to Exhibit A to Exhibit 4.1 to AAG's Current Report on Form 8-K filed on September 26, 2014 (Commission File No. 1-8400)).
4.34	Form of 4.625% Senior Notes due 2020 (incorporated by reference to Exhibit A to Exhibit 4.1 to AAG's Current Report on Form 8-K filed on March 12, 2015 (Commission File No. 1-8400)).
4.35	First Supplemental Indenture, dated as of December 30, 2015, among American Airlines Group Inc., American Airlines, Inc. and Wilmington Trust, National Association, as trustee, to the Indenture dated as of March 5, 2015 (incorporated by reference to Exhibit 4.3 to AAG's Current Report on Form 8-K filed on December 31, 2015 (Commission File No. 1-8400)).

Exhibit Number	Description
4.36	Trust Supplement No. 2015-1A, dated as of March 16, 2015, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on March 16, 2015 (Commission File No. 1-2691)).
4.37	Trust Supplement No. 2015-1B, dated as of March 16, 2015, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on March 16, 2015 (Commission File No. 1-2691)).
4.38	Intercreditor Agreement (2015-1), dated as of March 16, 2015, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2015-1A and as Trustee of the American Airlines Pass Through Trust 2015-1B, Crédit Agricole Corporate and Investment Bank, acting through its New York Branch, as Class A Liquidity Provider and Class B Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.4 to American's Current Report on Form 8-K filed on March 16, 2015 (Commission File No. 1-2691)).
4.39	Note Purchase Agreement, dated as of March 16, 2015, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust, National Association, as Escrow Agent, and Wilmington Trust Company, as Paying Agent (incorporated by reference to Exhibit 4.9 to American's Current Report on Form 8-K filed on March 16, 2015 (Commission File No. 1-2691)).
4.40	Form of Participation Agreement (Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (incorporated by reference to Exhibit 4.10 to American's Current Report on Form 8-K filed on March 16, 2015 (Commission File No. 1-2691)).
4.41	Form of Indenture and Security Agreement (Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (incorporated by reference to Exhibit 4.11 to American's Current Report on Form 8-K filed on March 16, 2015 (Commission File No. 1-2691)).
4.42	Form of Pass Through Trust Certificate, Series 2015-1A (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on March 16, 2015 (Commission File No. 1-2691)).
4.43	Form of Pass Through Trust Certificate, Series 2015-1B (incorporated by reference to Exhibit A to Exhibit 4.3 to American's Current Report on Form 8-K filed on March 16, 2015 (Commission File No. 1-2691)).
4.44	Revolving Credit Agreement (2015-1A), dated as of March 16, 2015, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2015-1A, as Borrower, and Crédit Agricole Corporate and Investment Bank, acting through its New York Branch, as Liquidity Provider (incorporated by reference to Exhibit 4.14 to American's Current Report on Form 8-K filed on March 16, 2015 (Commission File No. 1-2691)).
4.45	Revolving Credit Agreement (2015-1B), dated as of March 16, 2015, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2015-1B, as Borrower, and Crédit Agricole Corporate and Investment Bank, acting through its New York Branch, as Liquidity Provider (incorporated by reference to Exhibit 4.15 to American's Current Report on Form 8-K filed on March 16, 2015 (Commission File No. 1-2691)).
4.46	Trust Supplement No. 2015-2AA, dated as of September 24, 2015, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.47	Trust Supplement No. 2015-2A, dated as of September 24, 2015, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16,

	2014 (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.48	Trust Supplement No. 2015-2B, dated as of September 24, 2015, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.4 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.49	Intercreditor Agreement (2015-2), dated as of September 24, 2015, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2015-2AA, as Trustee of the American Airlines Pass Through Trust 2015-2A and as Trustee of the American Airlines Pass Through Trust 2015-2B, Commonwealth Bank of Australia, New York Branch, as Class AA Liquidity Provider, Crédit Agricole Corporate and Investment Bank, acting through its New York Branch, as Class A Liquidity Provider and Class B Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.5 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).

Exhibit Number	Description
4.50	Note Purchase Agreement, dated as of September 24, 2015, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.6 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.51	Form of Participation Agreement (Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (incorporated by reference to Exhibit B to Exhibit 4.6 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.52	Form of Indenture and Security Agreement (Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (incorporated by reference to Exhibit C to Exhibit 4.6 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.53	Form of Pass Through Trust Certificate, Series 2015-2AA (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.54	Form of Pass Through Trust Certificate, Series 2015-2A (incorporated by reference to Exhibit A to Exhibit 4.3 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.55	Form of Pass Through Trust Certificate, Series 2015-2B (incorporated by reference to Exhibit A to Exhibit 4.4 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.56	Revolving Credit Agreement (2015-2AA), dated as of September 24, 2015, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2015-2AA, as Borrower, and Commonwealth Bank of Australia, New York Branch, as Liquidity Provider (incorporated by reference to Exhibit 4.12 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.57	Revolving Credit Agreement (2015-2A), dated as of September 24, 2015, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2015-2A, as Borrower, and Crédit Agricole Corporate and Investment Bank, acting through its New York Branch, as Liquidity Provider (incorporated by reference to Exhibit 4.13 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.58	Revolving Credit Agreement (2015-2B), dated as of September 24, 2015, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2015-2B, as Borrower, and Crédit Agricole Corporate and Investment Bank, acting through its New York Branch, as Liquidity Provider (incorporated by reference to Exhibit 4.14 to American's Current Report on Form 8-K filed on September 24, 2015 (Commission File No. 1-2691)).
4.59	Note Purchase Agreement, dated as of April 24, 2013, among American Airlines, Inc. (as successor in interest to US Airways, Inc.) Wilmington Trust Company, as Pass Through Trustee, Wilmington Trust Company, as Subordination Agent, Wilmington Trust, National Association, as Escrow Agent, and Wilmington Trust Company, as Paying Agent (incorporated by reference to Exhibit 4.12 to US Airways Group's Current Report on Form 8-K filed on April 25, 2013 (Commission File No. 1-8444)).
4.60	Assumption Agreement, dated as of December 30, 2015, by American Airlines, Inc. for the benefit of Wilmington Trust Company, as pass through trustee, subordination agent, and paying agent, and Wilmington Trust, National Association, as escrow agent, in each case, under the Note Purchase Agreement, dated as of April 24, 2013, among American Airlines, Inc. (as successor in interest to US Airways, Inc.), Wilmington Trust Company, Wilmington Trust, National Association and Wilmington Trust Company (incorporated by reference to Exhibit 10.2 to AAG's Current Report on Form 8-K filed on December 31, 2015 (Commission File No. 1-8400)).
4.61	Form of Participation Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee, Subordination Agent and Pass

	Through Trustee (incorporated by reference to Exhibit 4.13 to US Airways Group's Current Report on Form 8-K filed on April 25, 2013 (Commission File No. 1-8444)).
4.62	Form of Trust Indenture and Security Agreement among American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, Wilmington Trust, National Association, as Securities Intermediary, and Wilmington Trust Company, as Indenture Trustee (incorporated by reference to Exhibit 4.14 to US Airways Group's Current Report on Form 8-K filed on April 25, 2013 (Commission File No. 1-8444)).
4.63	Form of Amendment No. 1 to Participation Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee, Subordination Agent and Pass Through Trustee (Exhibit A to Note Purchase Agreement) (incorporated by reference to Exhibit 4.8 to US Airways Group's Current Report on Form 8-K filed on June 6, 2013 (Commission File No. 1-8444)).

Exhibit Number	Description
4.64	Form of Amendment No. 1 to Trust Indenture and Security Agreement among American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, Wilmington Trust, National Association, as Securities Intermediary, and Wilmington Trust Company, as Indenture Trustee (Exhibit B to Note Purchase Agreement) (incorporated by reference to Exhibit 4.9 to US Airways Group's Current Report on Form 8-K filed on June 6, 2013 (Commission File No. 1-8444)).
4.65	Amended and Restated Guarantee, dated as of March 31, 2014, from American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.) relating to obligations of US Airways under the equipment notes relating to its Series 2013-1 Pass Through Certificates (incorporated by reference to Exhibit 10.5 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 (Commission File No. 1-8400)).
4.66	Form of Participation Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee, Subordination Agent and Pass Through Trustee (Schedule I to Amendment No. 1 to Note Purchase Agreement (2012-2)) (incorporated by reference to Exhibit 4.10 to US Airways Group's Current Report on Form 8-K filed on June 6, 2013 (Commission File No. 1-8444)).
4.67	Form of Trust Indenture and Security Agreement among American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, Wilmington Trust, National Association, as Securities Intermediary, and Wilmington Trust Company, as Indenture Trustee (Schedule II to Amendment No. 1 to Note Purchase Agreement (2012-2)) (incorporated by reference to Exhibit 4.11 to US Airways Group's Current Report on Form 8-K filed on June 6, 2013 (Commission File No. 1-8444)).
4.68	Form of Participation Agreement (Participation Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee and Subordination Agent) (incorporated by reference to Exhibit 4.14 to US Airways Group's Current Report on Form 8-K filed on December 23, 2010 (Commission File No. 1-8444)).
4.69	Form of Indenture (Trust Indenture and Security Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee) (incorporated by reference to Exhibit 4.15 to US Airways Group's Current Report on Form 8-K filed on December 23, 2010 (Commission File No. 1-8444)).
4.70	Amended and Restated Guarantee, dated as of March 31, 2014, from American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.) relating to obligations of US Airways under the equipment notes relating to its Series 2010-1 Pass Through Certificates (incorporated by reference to Exhibit 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 (Commission File No. 1-8400)).
4.71	Form of Participation Agreement (Participation Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee and Subordination Agent) (incorporated by reference to Exhibit 4.18 to US Airways Group's Current Report on Form 8-K filed on July 1, 2011 (Commission File No. 1-08444)).
4.72	Form of Indenture (Trust Indenture and Security Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee) (incorporated by reference to Exhibit 4.19 to US Airways Group's Current Report on Form 8-K filed on July 1, 2011 (Commission File No. 1-08444)).
4.73	Guarantee, dated as of June 28, 2011, from American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.) (incorporated by reference to Exhibit 4.23 to US Airways Group's Current Report on Form 8-K filed on July 1, 2011 (Commission File No. 1-08444)).
4.74	Amended and Restated Guarantee, dated as of March 31, 2014, from American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.) relating to obligations of US Airways under the equipment notes relating to its Series 2011-1 Pass Through Certificates (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 (Commission File No. 1-8400)).
4.75	

	Form of Participation Agreement (Participation Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee and Subordination Agent) (incorporated by reference to Exhibit 4.18 to US Airways Group's Current Report on Form 8-K filed on May 16, 2012 (Commission File No. 1-08444)).
4.76	Form of Indenture (Trust Indenture and Security Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee) (incorporated by reference to Exhibit 4.19 to US Airways Group's Current Report on Form 8-K filed on May 16, 2012 (Commission File No. 1-08444)).
4.77	Amended and Restated Guarantee, dated as of March 31, 2014, from American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.) relating to obligations of US Airways under the equipment notes relating to its Series 2012-1 Pass Through Certificates (incorporated by reference to Exhibit 10.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 (Commission File No. 1-8400)).

Exhibit Number	Description
4.78	Form of Participation Agreement (Participation Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee and Subordination Agent) (incorporated by reference to Exhibit B to Exhibit 4.12 to US Airways Group's Current Report on Form 8-K filed on December 13, 2012 (Commission File No. 1-08444)).
4.79	Form of Indenture (Trust Indenture and Security Agreement between American Airlines, Inc. (as successor in interest to US Airways, Inc.), as Owner, and Wilmington Trust Company, as Indenture Trustee) (incorporated by reference to Exhibit C to Exhibit 4.12 to US Airways Group's Current Report on Form 8-K filed on December 13, 2012 (Commission File No. 1-08444)).
4.80	Amended and Restated Guarantee, dated as of March 31, 2014, from American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.) relating to obligations of US Airways under the equipment notes relating to its Series 2012-2 Pass Through Certificates (incorporated by reference to Exhibit 10.4 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 (Commission File No. 1-8400)).
4.81	Form of Assumption Agreement, dated as of December 30, 2015, by American Airlines, Inc. for the benefit of Wilmington Trust Company, as Indenture Trustee, to (i) each Participation Agreement between, among others, American Airlines, Inc. (as successor in interest to US Airways, Inc.) and Wilmington Trust Company, as Indenture Trustee, entered into pursuant to the 2010-1, 2011-1, 2012-1, 2012-2 and 2013-1 EETC note purchase agreements and (ii) each Trust Indenture and Security Agreement, between, among others, American Airlines, Inc. (as successor in interest to US Airways, Inc.), and Wilmington Trust Company, as Indenture Trustee entered into pursuant to the 2010-1, 2011-1, 2012-1, 2012-2 and 2013-1 EETC note purchase agreements (incorporated by reference to Exhibit 10.3 to AAG's Current Report on Form 8-K filed on December 31, 2015 (Commission File No. 1-8400)).
4.82	Trust Supplement No. 2016-1AA, dated as of January 19, 2016, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.83	Trust Supplement No. 2016-1A, dated as of January 19, 2016, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.84	Trust Supplement No. 2016-1B, dated as of January 19, 2016, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.4 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.85	Intercreditor Agreement (2016-1), dated as of January 19, 2016, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2016-1AA, as Trustee of the American Airlines Pass Through Trust 2016-1A and as Trustee of the American Airlines Pass Through Trust 2016-1B, KfW IPEX-Bank GmbH, as Class AA Liquidity Provider, Class A Liquidity Provider and Class B Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to exhibit 4.5 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.86	Note Purchase Agreement, dated as of January 19, 2016, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.6 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.87	Form of Participation Agreement (Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (incorporated by reference to Exhibit B to Exhibit 4.6

	to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.88	Form of Indenture and Security Agreement (Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (incorporated by reference to Exhibit C to Exhibit 4.6 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.89	Form of Pass Through Trust Certificate, Series 2016-1AA (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.90	Form of Pass Through Trust Certificate, Series 2016-1A (incorporated by reference to Exhibit A to Exhibit 4.3 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.91	Form of Pass Through Trust Certificate, Series 2016-1B (incorporated by reference to Exhibit A to Exhibit 4.4 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).

Exhibit Number	Description
4.92	Revolving Credit Agreement (2016-1AA), dated as of January 19, 2016, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2016-1AA, as Borrower, and KfW IPEX-Bank GmbH, as Liquidity Provider (incorporated by reference to Exhibit 4.12 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.93	Revolving Credit Agreement (2016-1A), dated as of January 19, 2016, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2016-1A, as Borrower, and KfW IPEX-Bank GmbH, as Liquidity Provider (incorporated by reference to Exhibit 4.13 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.94	Revolving Credit Agreement (2016-1B), dated as of January 19, 2016, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2016-1B, as Borrower, and KfW IPEX-Bank GmbH, as Liquidity Provider (incorporated by reference to Exhibit 4.14 to American's Current Report on Form 8-K filed on January 21, 2016 (Commission File No. 1-2691)).
4.95	Trust Supplement No. 2016-2AA, dated as of May 16, 2016, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on May 17, 2016 (Commission File No. 1-2691)).
4.96	Trust Supplement No. 2016-2A, dated as of May 16, 2016, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on May 17, 2016 (Commission File No. 1-2691)).
4.97	Intercreditor Agreement (2016-2), dated as of May 16, 2016, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2016-2AA and as Trustee of the American Airlines Pass Through Trust 2016-2A, KfW IPEX-Bank GmbH, as Class AA Liquidity Provider and Class A Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.4 to American's Current Report on Form 8-K filed on May 17, 2016 (Commission File No. 1-2691)).
4.98	Note Purchase Agreement, dated as of May 16, 2016, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust, National Association, as Escrow Agent, and Wilmington Trust Company, as Paying Agent (incorporated by reference to Exhibit 4.9 to American's Current Report on Form 8-K filed on May 17, 2016 (Commission File No. 1-2691)).
4.99	Form of Participation Agreement (Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (incorporated by reference to Exhibit B to Exhibit 4.9 to American's Current Report on Form 8-K filed on May 17, 2016 (Commission File No. 1-2691)).
4.100	Form of Indenture and Security Agreement (Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (incorporated by reference to Exhibit C to Exhibit 4.9 to American's Current Report on Form 8-K filed on May 17, 2016 (Commission File No. 1-2691)).
4.101	Form of Pass Through Trust Certificate, Series 2016-2AA (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on May 17, 2016 (Commission File No. 1-2691)).
4.102	Form of Pass Through Trust Certificate, Series 2016-2A (incorporated by reference to Exhibit A to Exhibit 4.3 to American's Current Report on Form 8-K filed on May 17, 2016 (Commission File No. 1-2691)).
4.103	Revolving Credit Agreement (2016-2AA), dated as of May 16, 2016, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust

	2016-2AA, as Borrower, and KfW IPEX-Bank GmbH, as Liquidity Provider (incorporated by reference to Exhibit 4.14 to American's Current Report on Form 8-K filed on May 17, 2016 (Commission File No. 1-2691)).
4.104	Revolving Credit Agreement (2016-2A), dated as of May 16, 2016, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2016-2A, as Borrower, and KfW IPEX-Bank GmbH, as Liquidity Provider (incorporated by reference to Exhibit 4.15 to American's Current Report on Form 8-K filed on May 17, 2016 (Commission File No. 1-2691)).
4.105	Trust Supplement No. 2016-2B, dated as of July 8, 2016, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on July 12, 2016 (Commission File No. 1-2691)).

Exhibit Number	Description
4.106	Amended and Restated Intercreditor Agreement (2016-2), dated as of July 8, 2016, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2016-2AA, as Trustee of the American Airlines Pass Through Trust 2016-2A and as Trustee of the American Airlines Pass Through Trust 2016-2B, KfW IPEX-Bank GmbH, as Class AA Liquidity Provider, Class A Liquidity Provider and Class B Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on July 12, 2016 (Commission File No. 1-2691)).
4.107	Amended and Restated Note Purchase Agreement, dated as of July 8, 2016, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust, National Association, as Escrow Agent, and Wilmington Trust Company, as Paying Agent (incorporated by reference to Exhibit 4.6 to American's Current Report on Form 8-K filed on July 12, 2016 (Commission File No. 1-2691)).
4.108	Form of Participation Agreement (Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (included in Exhibit B to Exhibit 4.6 to American's Current Report on Form 8-K filed on July 12, 2016 (Commission File No. 1-2691)).
4.109	Form of First Amendment to Participation Agreement (First Amendment to Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (included in Exhibit D to Exhibit 4.6 to American's Current Report on Form 8-K filed on July 12, 2016 (Commission File No. 1-2691)).
4.110	Form of Indenture and Security Agreement (Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (included in Exhibit C to Exhibit 4.6 to American's Current Report on Form 8-K filed on July 12, 2016 (Commission File No. 1-2691)).
4.111	Form of First Amendment to Indenture and Security Agreement (First Amendment to Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (included in Exhibit E to Exhibit 4.6 to American's Current Report on Form 8-K filed on July 12, 2016 (Commission File No. 1-2691)).
4.112	Form of Pass Through Trust Certificate, Series 2016-2B (included in Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on July 12, 2016 (Commission File No. 1-2691)).
4.113	Revolving Credit Agreement (2016-2B), dated as of July 8, 2016, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2016-2B, as Borrower, and KfW IPEX Bank GmbH, as liquidity Provider (incorporated by reference to Exhibit 4.12 to American's Current Report on Form 8-K filed on July 12, 2016 (Commission File No. 1-2691)).
4.114	Trust Supplement No. 2016-3AA, dated as of October 3, 2016, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on October 4, 2016 (Commission File No. 1-2691)).
4.115	Trust Supplement No. 2016-3A, dated as of October 3, 2016, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on October 4, 2016 (Commission File No. 1-2691)).
4.116	Intercreditor Agreement (2016-3), dated as of October 3, 2016, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2016-3AA and as Trustee of the American Airlines Pass Through Trust 2016-3A, KfW IPEX-Bank GmbH, as Class AA Liquidity Provider and Class A Liquidity

	Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.4 to American's Current Report on Form 8-K filed on October 4, 2016 (Commission File No. 1-2691)).
4.117	Amended and Restated Intercreditor Agreement (2016-3), dated as of October 4, 2017, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2016-3AA, as Trustee of the American Airlines Pass Through Trust 2016-3A and as Trustee of the American Airlines Pass Through Trust 2016-3B, KfW IPEX-Bank GmbH, as Class AA Liquidity Provider, Class A Liquidity Provider and Class B Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on October 5, 2017 (Commission File No. 1-2691)).
4.118	Note Purchase Agreement, dated as of October 3, 2016, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust, National Association, as Escrow Agent, and Wilmington Trust Company, as Paying Agent (incorporated by reference to Exhibit 4.9 to American's Current Report on Form 8-K filed on October 4, 2016 (Commission File No. 1-2691)).

Exhibit Number	Description
4.119	Form of Participation Agreement (Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (included in Exhibit B to Exhibit 4.9) (incorporated by reference to Exhibit 4.9 to American's Current Report on Form 8-K filed on October 4, 2016 (Commission File No. 1-2691)).
4.120	Form of Indenture and Security Agreement (Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (included in Exhibit C to Exhibit 4.9) (incorporated by reference to Exhibit C to Exhibit 4.9 to American's Current Report on Form 8-K filed on October 4, 2016 (Commission File No. 1-2691)).
4.121	Form of Pass Through Trust Certificate, Series 2016-3AA (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on October 4, 2016 (Commission File No. 1-2691)).
4.122	Form of Pass Through Trust Certificate, Series 2016-3A (incorporated by reference to Exhibit A to Exhibit 4.3 to American's Current Report on Form 8-K filed on October 4, 2016 (Commission File No. 1-2691)).
4.123	Revolving Credit Agreement (2016-3AA), dated as of October 3, 2016, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2016-3AA, as Borrower, and KfW IPEX-Bank GmbH, as Liquidity Provider (incorporated by reference to Exhibit 4.14 to American's Current Report on Form 8-K filed on October 4, 2016 (Commission File No. 1-2691)).
4.124	Revolving Credit Agreement (2016-3A), dated as of October 3, 2016, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2016-3A, as Borrower, and KfW IPEX-Bank GmbH, as Liquidity Provider (incorporated by reference to Exhibit 4.15 to American's Current Report on Form 8-K filed on October 4, 2016 (Commission File No. 1-2691)).
4.125	Trust Supplement No. 2017-1AA, dated as of January 13, 2017, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.126	Trust Supplement No. 2017-1A, dated as of January 13, 2017, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014, (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.127	Trust Supplement No. 2017-1B, dated as of January 13, 2017, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.4 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.128	Intercreditor Agreement (2017-1), dated as of January 13, 2017, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2017-1AA, as Trustee of the American Airlines Pass Through Trust 2017-1A and as Trustee of the American Airlines Pass Through Trust 2017-1B, Citibank N.A., as Class AA Liquidity Provider, Class A Liquidity Provider and Class B Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.5 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.129	Note Purchase Agreement, dated as of January 13, 2017, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust, National Association, as Escrow Agent, and Wilmington Trust Company, as Paying Agent (incorporated by reference to Exhibit 4.12 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).

4.130	Form of Participation Agreement (Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (incorporated by reference to Exhibit B to Exhibit 4.12 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.131	Form of Indenture and Security Agreement (Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (incorporated by reference to Exhibit C to Exhibit 4.12 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.132	Form of Pass Through Trust Certificate, Series 2017-1AA (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.133	Form of Pass Through Trust Certificate, Series 2017-1A (incorporated by reference to Exhibit A to Exhibit 4.3 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.134	Form of Pass Through Trust Certificate, Series 2017-1B (incorporated by reference to Exhibit A to Exhibit 4.4 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).

Exhibit Number	Description
4.135	Revolving Credit Agreement (2017-1AA), dated as of January 13, 2017, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2017-1AA, as Borrower, and Citibank N.A., as Liquidity Provider (incorporated by reference to Exhibit 4.18 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.136	Revolving Credit Agreement (2017-1A), dated as of January 13, 2017, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2017-1A, as Borrower, and Citibank N.A., as Liquidity Provider (incorporated by reference to Exhibit 4.19 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.137	Revolving Credit Agreement (2017-1B), dated as of January 13, 2017, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2017-1B, as Borrower, and Citibank N.A., as Liquidity Provider (incorporated by reference to Exhibit 4.20 to American's Current Report on Form 8-K filed on January 17, 2017 (Commission File No. 1-02691)).
4.138	Acknowledgment and Agreement (2017-1), dated as of March 31, 2017, by and among American Airlines Inc., Citibank, N.A., as initial Liquidity Provider, National Australia Bank Limited, as Replacement Liquidity Provider, and Wilmington Trust Company, as Subordination Agent and trustee (incorporated by reference to Exhibit 4.20 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (Commission File No. 1-8400)).
4.139	Revolving Credit Agreement (2017-1AA), dated as of March 31, 2017, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2017-1AA, as Borrower, and National Australia Bank Limited, as Liquidity Provider (incorporated by reference to Exhibit 4.21 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (Commission File No. 1-8400)).
4.140	Revolving Credit Agreement (2017-1A), dated as of March 31, 2017, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2017-1A, as Borrower, and National Australia Bank Limited, as Liquidity Provider (incorporated by reference to Exhibit 4.22 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (Commission File No. 1-8400)).
4.141	Revolving Credit Agreement (2017-1B), dated as of March 31, 2017, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2017-1B, as Borrower, and National Australia Bank Limited, as Liquidity Provider (incorporated by reference to Exhibit 4.23 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (Commission File No. 1-8400)).
4.142	Form of American Airlines Group Inc. Indenture for Debt Securities (incorporated by reference to Exhibit 4.1 to AAG's Registration Statement on Form S-3ASR filed on February 22, 2017 (Commission File No. 333-216167).
4.143	Form of American Airlines, Inc. Indenture for Debt Securities (incorporated by reference to Exhibit 4.2 to AAG's Registration Statement on Form S-3ASR filed on February 22, 2017 (Commission File No. 333-216167).
4.144	Trust Supplement No. 2017-2AA, dated as of August 14, 2017, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on August 14, 2017 (Commission File No. 1-2691)).
4.145	Trust Supplement No. 2017-2A, dated as of August 14, 2017, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on August 14, 2017 (Commission File No. 1-2691)).
4.146	

	Intercreditor Agreement (2017-2), dated as of August 14, 2017, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2017-2AA and as Trustee of the American Airlines Pass Through Trust 2017-2A, National Australia Bank Limited, as Class AA Liquidity Provider and Class A Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.4 to American's Current Report on Form 8-K filed on August 14, 2017 (Commission File No. 1-2691)).
4.147	Note Purchase Agreement, dated as of August 14, 2017, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust, National Association, as Escrow Agent, and Wilmington Trust Company, as Paying Agent (incorporated by reference to Exhibit 4.9 to American's Current Report on Form 8-K filed on August 14, 2017 (Commission File No. 1-2691)).
4.148	Form of Participation Agreement (Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (incorporated by reference to Exhibit B to Exhibit 4.9 to American's Current Report on Form 8-K filed on August 14, 2017 (Commission File No. 1-2691)).
4.149	Form of Indenture and Security Agreement (Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (incorporated by reference to Exhibit C to Exhibit 4.9 to American's Current Report on Form 8-K filed on August 14, 2017 (Commission File No. 1-2691)).

Exhibit Number	Description
4.150	Form of Pass Through Trust Certificate, Series 2017-2AA (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on August 14, 2017 (Commission File No. 1-2691)).
4.151	Form of Pass Through Trust Certificate, Series 2017-2A (incorporated by reference to Exhibit A to Exhibit 4.3 to American's Current Report on Form 8-K filed on August 14, 2017 (Commission File No. 1-2691)).
4.152	Revolving Credit Agreement (2017-2AA), dated as of August 14, 2017, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2017-2AA, as Borrower, and National Australia Bank Limited, as Liquidity Provider (incorporated by reference to Exhibit 4.14 to American's Current Report on Form 8-K filed on August 14, 2017 (Commission File No. 1-2691)).
4.153	Revolving Credit Agreement (2017-2A), dated as of August 14, 2017, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2017-2A, as Borrower, and National Australia Bank Limited, as Liquidity Provider (incorporated by reference to Exhibit 4.15 to American's Current Report on Form 8-K filed on August 14, 2017 (Commission File No. 1-2691)).
4.154	Trust Supplement No. 2016-3B, dated as of October 4, 2017, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on October 5, 2017 (Commission File No. 1-2691)).
4.155	Amended and Restated Note Purchase Agreement, dated as of October 4, 2017, amending the Note Purchase Agreement, dated as of October 3, 2016, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.4 to American's Current Report on Form 8-K filed on October 5, 2017 (Commission File No. 1-2691)).
4.156	Form of First Amendment to Participation Agreement (First Amendment to Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (incorporated by reference to Exhibit A to Exhibit 4.4 to American's Current Report on Form 8-K filed on October 5, 2017 (Commission File No. 1-2691)).
4.157	Form of First Amendment to Indenture and Security Agreement (First Amendment to Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (incorporated by reference to Exhibit E to Exhibit 4.6 to American's Current Report on Form 8-K filed on October 6, 2017 (Commission File No. 1-2691)).
4.158	Form of First Amendment to Indenture and Security Agreement (First Amendment to Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (incorporated by reference to Exhibit B to Exhibit 4.4 to American's Current Report on Form 8-K filed on October 5, 2017 (Commission File No. 1-2691)).
4.159	Form of Pass Through Trust Certificate, Series 2016-3B (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on October 5, 2017 (Commission File No. 1-2691)).
4.160	Revolving Credit Agreement (2016-3B), dated as of October 4, 2017, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2016-3B, as Borrower, and KfW IPEX-Bank GmbH, as Liquidity Provider 3B (incorporated by reference to Exhibit 4.8 to American's Current Report on Form 8-K filed on October 5, 2017 (Commission File No. 1-2691)).
4.161	Trust Supplement No. 2017-2B, dated as of October 5, 2017, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American's Current Report on Form 8-K filed on October 6,

	2017 (Commission File No. 1-2691)).
4.162	Amended and Restated Intercreditor Agreement (2017-2), dated as of October 5, 2017, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2017-2AA, as Trustee of the American Airlines Pass Through Trust 2017-2A and as Trustee of the American Airlines Pass Through Trust 2017-2B, National Australia Bank Limited, as Class AA Liquidity Provider, Class A Liquidity Provider and Class B Liquidity Provider, and Wilmington Trust Company, as Subordination Agent (incorporated by reference to Exhibit 4.3 to American's Current Report on Form 8-K filed on October 6, 2017 (Commission File No. 1-2691)).
4.163	Amended and Restated Note Purchase Agreement, dated as of October 5, 2017, among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust, National Association, as Escrow Agent, and Wilmington Trust Company, as Paying Agent (incorporated by reference to Exhibit 4.6 to American's Current Report on Form 8-K filed on October 6, 2017 (Commission File No. 1-2691)).

Exhibit Number	Description
4.164	Form of Participation Agreement (Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (incorporated by reference to Exhibit B to Exhibit 4.6 to American's Current Report on Form 8-K filed on October 6, 2017 (Commission File No. 1-2691)).
4.165	Form of First Amendment to Participation Agreement (First Amendment to Participation Agreement among American Airlines, Inc., Wilmington Trust Company, as Pass Through Trustee under each of the Pass Through Trust Agreements, Wilmington Trust Company, as Subordination Agent, Wilmington Trust Company, as Loan Trustee, and Wilmington Trust Company, in its individual capacity as set forth therein) (incorporated by reference to Exhibit D to Exhibit 4.6 to American's Current Report on Form 8-K filed on October 6, 2017 (Commission File No. 1-2691)).
4.166	Form of Indenture and Security Agreement (Indenture and Security Agreement between American Airlines, Inc., and Wilmington Trust Company, as Loan Trustee) (incorporated by reference to Exhibit C to Exhibit 4.6 to American's Current Report on Form 8-K filed on October 6, 2017 (Commission File No. 1-2691)).
4.167	Form of Pass Through Trust Certificate, Series 2017-2B (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on October 6, 2017 (Commission File No. 1-2691)).
4.168	Revolving Credit Agreement (2017-2B), dated as of October 5, 2017, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2017-2B, as Borrower, and National Australia Bank Limited, as Liquidity Provider (incorporated by reference to Exhibit 4.12 to American's Current Report on Form 8-K filed on October 6, 2017 (Commission File No. 1-2691)).
4.169	Trust Supplement No. 2012-2C(R), dated as of May 15, 2018, between American Airlines, Inc. and Wilmington Trust Company, as Trustee, to the Pass Through Trust Agreement, dated as of September 16, 2014 (incorporated by reference to Exhibit 4.2 to American Airlines, Inc.'s Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1-2691)).
4.170	Form of Amendment No. 2 to Intercreditor Agreement (2012-2C(R)) among Wilmington Trust Company, not in its individual capacity but solely as Trustee of the American Airlines, Inc. Pass Through Trust 2012-2C(R), American Airlines, Inc. and Wilmington Trust Company, not in its individual capacity but solely as Subordination Agent and Trustee (incorporated by reference to Exhibit C to Exhibit 4.6 to American Airlines, Inc.'s Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1-2691)).
4.171	Note Purchase Agreement, dated as of May 15, 2018, among American Airlines, Inc., Wilmington Trust Company, not in its individual capacity, but solely as Pass Through Trustee under the Class C(R) Pass Through Trust Agreement, as Subordination Agent and as Indenture Trustee, Wilmington Trust, National Association, as Escrow Agent, and Wilmington Trust Company, as Paying Agent (incorporated by reference to Exhibit 4.6 to American Airlines, Inc.'s Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1- 2691)).
4.172	Form of Amendment to Participation Agreement (Amendment to Participation Agreement among American Airlines, Inc., Wilmington Trust Company, not in its individual capacity, but solely as Subordination Agent and as Indenture Trustee, and Wilmington Trust Company, not in its individual capacity, but solely as Pass Through Trustee under each of the Pass Through Trust Agreements) (incorporated by reference to Exhibit A to Exhibit 4.6 to American Airlines, Inc.'s Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1- 2691)).
4.173	Form of Amendment to Trust Indenture and Security Agreement (Amendment to Trust Indenture and Security Agreement between American Airlines, Inc., Wilmington Trust Company, not in its individual capacity, but solely as Indenture Trustee, and Wilmington Trust, National Association, as Securities Intermediary) (incorporated by reference to Exhibit B to Exhibit 4.6 to American Airlines, Inc.'s Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1-2691)).

4.174	Form of Pass Through Trust Certificate, Series 2012-2C(R) (incorporated by reference to Exhibit A to Exhibit 4.2 to American Airlines, Inc.'s Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1-2691)).
10.1	Amended and Restated Credit and Guaranty Agreement, dated as of December 15, 2016, amending the Loan Agreement, dated as of May 23, 2013, among American Airlines, Inc. (as successor in interest to US Airways, Inc., as borrower), as the borrower, American Airlines Group Inc., as parent and guarantor (as successor in interest to US Airways Group, Inc., as parent and guarantor), the lenders from time to time party thereto, Citibank N.A., as administrative agent and collateral agent (as successor in interest to Citicorp North America Inc., as administrative agent and collateral agent), and certain other parties thereto. (incorporated by reference to Exhibit 10.1 to AAG's Annual Report on Form 10-K for the year ended December 31, 2016 (Commission File No. 1-8400)).

Exhibit Number	Description
10.2	First Amendment to Amended and Restated Credit and Guaranty Agreement, dated as of November 14, 2017, amending the Amended and Restated Credit and Guaranty Agreement, dated as of December 15, 2016, amending the Loan Agreement, dated as of May 23, 2013, among American Airlines, Inc. (as successor in interest to US Airways, Inc., as borrower), as the borrower, American Airlines Group Inc., as parent and guarantor (as successor in interest to US Airways Group, Inc., as parent and guarantor), the lenders from time to time party thereto, Citibank N.A., as administrative agent and collateral agent (as successor in interest to Citicorp North America Inc., as administrative agent and collateral agent), and certain other parties thereto (incorporated by reference to Exhibit 10.2 to AAG's Annual Report on Form 10-K for the year ended December 31, 2017 (Commission File No. 1-8400)).
10.3	First Amendment and Restatement Agreement, dated as of April 20, 2015, in relation to the Credit and Guaranty Agreement, dated as of October 10, 2014 (as amended), among American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.), American Airlines, Inc. (as successor in interest to US Airways, Inc.), the Revolving Lenders (as defined therein) party thereto, the 2015 Term Loan Lenders (as defined therein) party thereto and Citibank N.A., as administrative agent and collateral agent (incorporated by reference to Exhibit 10.4 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (Commission File No. 1-8400)).
10.4	First Amendment to Amended and Restated Credit and Guaranty Agreement, dated as of October 26, 2015, amending the Amended and Restated Credit and Guaranty Agreement, dated as of April 20, 2015, among American Airlines, Inc. (as successor in interest to US Airways, Inc.), American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.), the lenders from time to time party thereto, Citibank N.A., as administrative agent, and certain other parties thereto (incorporated by reference to Exhibit 10.6 to AAG's Annual Report on Form 10-K for the year ended December 31, 2015 (Commission File No. 1-8400)).
10.5	Second Amendment to Amended and Restated Credit and Guaranty Agreement, dated as of September 22, 2016, amending the Amended and Restated Credit and Guaranty Agreement, dated as of April 20, 2015, among American Airlines, Inc., American Airlines Group Inc., the lenders from time to time party thereto, Citibank N.A., as administrative agent, and certain other parties thereto (incorporated by reference to Exhibit 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 (Commission File No. 1-8400)).
10.6	Third Amendment to the Amended and Restated Credit and Guaranty Agreement, dated as of June 14, 2017, amending the Amended and Restated Credit and Guaranty Agreement, dated as of April 20, 2015, among American Airlines, Inc., American Airlines Group Inc., the lenders from time to time party thereto, Citibank N.A., as administrative agent, and certain other parties thereto (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017 (Commission File No. 1-8400)).
10.7	Fourth Amendment to the Amended and Restated Credit and Guaranty Agreement, dated as of August 21, 2017, amending the Amended and Restated Credit and Guaranty Agreement, dated as of April 20, 2015, among American Airlines, Inc., American Airlines Group Inc., the lenders from time to time party thereto, Citibank N.A., as administrative agent, and certain other parties thereto (incorporated by reference to Exhibit 10.7 to AAG's Annual Report on Form 10-K for the year ended December 31, 2017 (Commission File No. 1-8400)).*
10.8	Fifth Amendment to the Amended and Restated Credit and Guaranty Agreement, dated as of September 17, 2018, amending the Amended and Restated Credit and Guaranty Agreement, dated as of April 20, 2015, among American Airlines, Inc., American Airlines Group Inc., the lenders from time to time party thereto, Citibank N.A., as administrative agent, and certain other parties thereto (incorporated by reference to Exhibit 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018 (Commission File No. 1-8400)).*
10.9	Sixth Amendment to the Amended and Restated Credit and Guaranty Agreement, dated as of December 10, 2018, amending the Amended and Restated Credit and Guaranty Agreement, dated as of April 20, 2015,

	among American Airlines, Inc., American Airlines Group Inc., the lenders from time to time party thereto, Citibank N.A., as administrative agent, and certain other parties thereto.**
10.10	First Amendment and Restatement Agreement, dated as of May 21, 2015, in relation to the Credit and Guaranty Agreement, dated as of June 27, 2013 (as amended), among American Airlines Group Inc. (as successor in interest to US Airways Group, Inc.), American Airlines, Inc. (as successor in interest to US Airways, Inc.), the Revolving Lenders (as defined therein) party thereto, the 2015 Term Loan Lenders (as defined therein) party thereto and Deutsche Bank AG New York Branch, as administrative agent and collateral agent (incorporated by reference to Exhibit 10.5 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (Commission File No. 1-8400)).
10.11	First Amendment to Amended and Restated Credit and Guaranty Agreement, dated as of October 26, 2015, amending the Amended and Restated Credit and Guaranty Agreement, dated as of May 21, 2015, among American Airlines, Inc. (as successor in interest to US Airways, Inc.), American Airlines Group Inc., (as successor in interest to US Airways Group, Inc .), the lenders from time to time party thereto, Deutsche Bank AG New York Branch, as administrative agent, and certain other parties thereto (incorporated by reference to Exhibit 10.8 to AAG's Annual Report on Form 10-K for the year ended December 31, 2015 (Commission File No. 1-8400)).

Exhibit Number	Description
10.12	Second Amendment to Amended and Restated Credit and Guaranty Agreement, dated as of March 14, 2017, amending the Amended and Restated Credit and Guaranty Agreement, dated as of May 21, 2015, among American Airlines, Inc., American Airlines Group Inc., the lenders from time to time party thereto, Deutsche Bank AG New York Branch, as administrative agent, and certain other parties thereto (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (Commission File No. 1-8400)).
10.13	Third Amendment to the Amended and Restated Credit And Guaranty Agreement, dated as of August 21, 2017, amending the Amended and Restated Credit and Guaranty Agreement, dated as of May 21, 2015, among American Airlines, Inc., American Airlines Group Inc., the lenders from time to time party thereto, Deutsche Bank AG New York Branch, as administrative agent, and certain other parties thereto (incorporated by reference to Exhibit 10.11 to AAG's Annual Report on Form 10-K for the year ended December 31, 2017 (Commission File No. 1-8400)).*
10.14	Fourth Amendment to Amended and Restated Credit and Guaranty Agreement, dated as of May 15, 2018, amending the Amended and Restated Credit and Guaranty Agreement, dated as of May 21, 2015, among American Airlines, Inc., American Airlines Group Inc., the lenders from time to time party thereto, Deutsche Bank AG New York Branch, as administrative agent, and Barclays Bank PLC, as designated replacement term lender (incorporated by reference to Exhibit 10.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 (Commission File No. 1-8400)).
10.15	Fifth Amendment to Amended and Restated Credit and Guaranty Agreement, dated as of December 10, 2018, amending the Amended and Restated Credit and Guaranty Agreement, dated as of May 21, 2015, among American Airlines, Inc., American Airlines Group Inc., the lenders from time to time party thereto, Deutsche Bank AG New York Branch, as administrative agent, and Barclays Bank PLC, as designated replacement term lender.**
10.16	Credit and Guaranty Agreement, dated as of April 29, 2016, among American Airlines, Inc. as borrower, American Airlines Group Inc., as parent and guarantor, certain other subsidiaries of American Airlines Group Inc., as guarantors, the lenders party thereto, Barclays Bank PLC, as administrative agent and collateral agent, and certain other parties thereto (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q filed on July 22, 2016 (Commission File No. 1-8400)).
10.17	First Amendment to Credit and Guaranty Agreement, dated as of October 31, 2016, amending the Credit and Guaranty Agreement, dated as of April 29, 2016, among American Airlines, Inc. as borrower, American Airlines Group Inc., as parent and guarantor, the lenders party thereto, Barclays Bank PLC, as administrative agent (incorporated by reference to Exhibit 10.81 to AAG's Annual Report on Form 10-K for the year ended December 31, 2016 (Commission File No. 1-8400)).
10.18	Second Amendment to the Credit and Guaranty Agreement, dated as of August 21, 2017, amending the Credit and Guaranty Agreement, dated as of April 29, 2016, among American Airlines, Inc., American Airlines Group Inc., the lenders from time to time party thereto, Barclays Bank PLC, as administrative agent, and certain other parties thereto (incorporated by reference to Exhibit 10.15 to AAG's Annual Report on Form 10-K for the year ended December 31, 2017 (Commission File No. 1-8400)).*
10.19	Third Amendment to Credit and Guaranty Agreement, dated as of November 1, 2017, amending the Credit and Guaranty Agreement, dated as of April 29, 2016, among American Airlines, Inc. as borrower, American Airlines Group Inc., as parent and guarantor, the lenders party thereto, Barclays Bank PLC, as administrative agent (incorporated by reference to Exhibit 10.16 to AAG's Annual Report on Form 10-K for the year ended December 31, 2017 (Commission File No. 1-8400)).
10.20	Fourth Amendment to Credit and Guaranty Agreement, dated as of December 10, 2018, amending the Credit and Guaranty Agreement, dated as of April 29, 2016, among American Airlines, Inc. as borrower, American Airlines Group Inc., as parent and guarantor, the lenders party thereto, Barclays Bank PLC, as administrative agent.**

10.21	Purchase Agreement No. 3219, dated as of October 15, 2008, between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.29 to American's Annual Report on Form 10-K for the year ended December 31, 2008 (Commission File No. 1-8400)).*
10.22	Supplemental Agreement No. 2, dated as of July 21, 2010, to Purchase Agreement No. 3219 between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.2 to AMR's report on Form 10-Q for the quarter ended June 30, 2010 (Commission File No. 1-8400)).*
10.23	Supplemental Agreement No. 3, dated as of February 1, 2013, to Purchase Agreement No. 3219 between American Airlines, Inc., and The Boeing Company (incorporated by reference to Exhibit 10.2 to AMR's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013 (Commission File No. 1-8400)).*
10.24	Supplemental Agreement No. 4, dated as of June 9, 2014, to Purchase Agreement No. 3219 between The Boeing Company and American Airlines, Inc. dated as of October 15, 2008, Relating to Boeing Model 787 Aircraft, as amended, restated, amended and restated, supplemented or otherwise modified (incorporated by reference to Exhibit 10.6 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 (Commission File No. 1-8400)).*

Exhibit Number	Description
10.25	Supplemental Agreement No. 5, dated as of January 20, 2015, to Purchase Agreement No. 3219 between The Boeing Company and American Airlines, Inc., dated as of October 15, 2008, Relating to Boeing Model 787 Aircraft, as amended, restated, amended and restated, supplemented or otherwise modified (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015 (Commission File No. 1-8400)).*
10.26	Supplemental Agreement No. 6, dated as of April 21, 2015, to Purchase Agreement No. 3219 between American Airlines, Inc. and The Boeing Company, dated as of October 15, 2008, as amended, restated, amended and restated, supplemented or otherwise modified (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (Commission File No. 1-8400)).*
10.27	Supplemental Agreement No. 7, dated as of September 12, 2016, to Purchase Agreement No. 3219 dated as of October 15, 2008, between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 (Commission File No. 1-8400)).*
10.28	Supplemental Agreement No. 8, dated as of January 26, 2017, to Purchase Agreement No. 3219 dated as of October 15, 2008, between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (Commission File No. 1-8400)).*
10.29	Supplemental Agreement No. 9, dated as of April 24, 2017, to Purchase Agreement No. 3219 dated as of October 15, 2008, by and between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.5 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017 (Commission File No. 1-8400)).*
10.30	Supplemental Agreement No. 10, dated as of May 11, 2017, to Purchase Agreement No. 3219 dated as of October 15, 2008, by and between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.6 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017 (Commission File No. 1-8400)).*
10.31	Supplemental Agreement No. 11, dated as of April 6, 2018, to Purchase Agreement No. 3219 dated as of October 15, 2008, by and between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 (Commission File No. 1-8400)).*
10.32	A320 Family Aircraft Purchase Agreement, dated as of July 20, 2011, between American Airlines, Inc. and Airbus S.A.S. (incorporated by reference to Exhibit 10.4 to AMR's report on Form 10-Q for the quarter ended September 30, 2011 (Commission File No. 1-8400)).*
10.33	Amendment No. 1, dated as of January 11, 2013, to A320 Family Aircraft Purchase Agreement between American Airlines, Inc. and Airbus S.A.S., dated as of July 20, 2011 (incorporated by reference to Exhibit 10.8 to AMR's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013 (Commission File No. 1-8400)).*
10.34	Amendment No. 2, dated as of May 30, 2013, to A320 Family Aircraft Purchase Agreement between American Airlines, Inc. and Airbus S.A.S, dated as of July 20, 2011 (incorporated by reference to Exhibit 10.2 to AMR's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 (Commission File No. 1-8400)).*
10.35	Amendment No. 3, dated as of November 20, 2013, to A320 Family Aircraft Purchase Agreement between American Airlines, Inc. and Airbus S.A.S., dated as of July 20, 2011 (incorporated by reference to Exhibit 10.27 to AAG's Annual Report on Form 10-K for the year ended December 31, 2013 (Commission File No. 1-8400)).*
10.36	Amendment No. 4, dated as of June 18, 2014, to the A320 Family Aircraft Purchase Agreement between Airbus S.A.S., as seller, and American Airlines, Inc., as buyer, dated as of July 20, 2011, as amended, restated, amended and restated, supplemented or otherwise modified (incorporated by reference to Exhibit

	10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 (Commission File No. 1-8400)).*
10.37	Amendment No. 5, dated as of June 24, 2014, to the A320 Family Aircraft Purchase Agreement between Airbus S.A.S., as seller, and American Airlines, Inc., as buyer, dated as of July 20, 2011, as amended, restated, amended and restated, supplemented or otherwise modified (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 (Commission File No. 1-8400)).*
10.38	Amendment No. 6, dated as of July 1, 2014, to the A320 Family Aircraft Purchase Agreement between Airbus S.A.S., as seller, and American Airlines, Inc., as buyer, dated as of July 20, 2011, as amended, restated, amended and restated, supplemented or otherwise modified (incorporated by reference to Exhibit 10.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 (Commission File No. 1-8400)).*
10.39	Amendment No. 7, dated as of November 25, 2014, to the A320 Family Aircraft Purchase Agreement between Airbus S.A.S., as seller, and American Airlines, Inc., as buyer, dated as of July 20, 2011, as amended, restated, amended and restated, supplemented or otherwise (incorporated by reference to Exhibit 10.51 to AAG's Annual Report on Form 10-K for the year ended December 31, 2014 (Commission File No. 1-8400)).*
10.40	Amendment No. 8, dated as of June 11, 2015, to the A320 Family Aircraft Purchase Agreement between American Airlines, Inc. and Airbus S.A.S., dated as of July 20, 2011, as amended, restated, amended and restated, supplemented or otherwise modified (incorporated by reference to Exhibit 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (Commission File No. 1-8400)).*

Exhibit Number	Description
10.41	Amendment No. 9, dated as of September 23, 2015, to the A320 Family Aircraft Purchase Agreement, dated as of July 20, 2011, between American Airlines, Inc. and Airbus S.A.S. (incorporated by reference to Exhibit 10.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015 (Commission File No. 1-8400)).*
10.42	Amendment No. 10, dated as of July 16, 2018, to the A320 Family Aircraft Purchase Agreement, dated as of July 20, 2011, between American Airlines, Inc. and Airbus S.A.S. (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018 (Commission File No. 1-8400)).*
10.43	Purchase Agreement No. 03735, dated as of February 1, 2013, between American Airlines, Inc., and The Boeing Company (incorporated by reference to Exhibit 10.7 to AMR's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013 (Commission File No. 1-8400)).*
10.44	Supplemental Agreement No. 1, dated as of April 15, 2013, to Purchase Agreement No. 03735 between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.1 to AMR's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 (Commission File No. 1-8400)).*
10.45	Supplemental Agreement No. 2, dated as of March 6, 2015, to Purchase Agreement No. 03735 between American Airlines, Inc. and The Boeing Company, dated as of February 1, 2013. Relating to Boeing Model 737 MAX Aircraft, as amended, restated, amended and restated, supplemented or otherwise modified (incorporated by reference to Exhibit 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015 (Commission File No. 1-8400)).*
10.46	Supplemental Agreement No. 3, dated as of May 22, 2015, to Purchase Agreement No. 03735 between American Airlines, Inc. and The Boeing Company, dated as of February 1, 2013. Relating to Boeing Model 737 MAX Aircraft, as amended, restated, amended and restated, supplemented or otherwise modified (incorporated by reference to Exhibit 10.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (Commission File No. 1-8400)).*
10.47	Letter Agreement, dated as of January 14, 2016, to Purchase Agreement No. 03735 between American Airlines, Inc. and The Boeing Company, dated as of February 1, 2013. Relating to Boeing Model 737 MAX Aircraft, as amended, restated, amended and restated, supplemented or otherwise modified (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 (Commission File No. 1-8400)).*
10.48	Supplemental Agreement No. 4, dated as of June 6, 2016, to Purchase Agreement No. 03735 dated as of February 1, 2016, between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 (Commission File No. 1-8400)).*
10.49	Supplemental Agreement No. 5, dated as of August 8, 2016, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 (Commission File No. 1-8400)).*
10.50	Supplemental Agreement No. 6, dated as of November 15, 2016, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.33 to AAG's Annual Report on Form 10-K for the year ended December 31, 2016 (Commission File No. 1-8400)).*
10.51	Supplemental Agreement No. 7, dated as of March 2, 2017, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (Commission File No. 1-8400)).*
10.52	Supplemental Agreement No. 8, dated as of December 7, 2017, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company (incorporated by reference to

	Exhibit 10.45 to AAG's Annual Report on Form 10-K for the year ended December 31, 2017 (Commission File No. 1-8400)).*
10.53	Supplemental Agreement No. 9, dated as of April 6, 2018, to Purchase Agreement No. 03735 dated as of February 1, 2013, by and between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 (Commission File No. 1-8400)).*
10.54	Consent Agreement, dated as of October 5, 2015, between American Airlines, Inc. (as successor in interest to US Airways, Inc.), American Airlines, Inc. and Airbus S.A.S. (incorporated by reference to Exhibit 10.98 to AAG's Annual Report on Form 10-K for the year ended December 31, 2015 (Commission File No. 1-8400)).*
10.55	Supplemental Executive Retirement Program for Officers of American Airlines, Inc., as amended and restated as of January 1, 2005 (incorporated by reference to Exhibit 10.127 to AMR's Annual Report on Form 10-K for the year ended December 31, 2008 (Commission File No. 1-8400)).†
10.56	Trust Agreement Under Supplemental Retirement Program for Officers of American Airlines, Inc., as amended and restated as of June 1, 2007 (incorporated by reference to Exhibit 10.128 to AMR's Annual Report on Form 10-K for the year ended December 31, 2008 (Commission File No. 1-8400)).†

Exhibit Number	Description
10.57	Trust Agreement Under Supplemental Executive Retirement Program for Officers of American Airlines, Inc. Participating in the Super Saver Plus Plan, as amended and restated as of June 1, 2007 (incorporated by reference to Exhibit 10.129 to AMR's Annual Report on Form 10-K for the year ended December 31, 2008 (Commission File No. 1-8400)).†
10.58	American Airlines Group Inc. 2013 Incentive Award Plan (incorporated by reference to Exhibit 4.1 of AAG's Form S-8 Registration Statement, filed on December 4, 2013).†
10.59	First Amendment to the American Airlines Group Inc. 2013 Incentive Award Plan (incorporated by reference to Exhibit 10.64 to AAG's Annual Report on Form 10-K for the year ended December 31, 2017 (Commission File No. 1-8400)).†
10.60	Form of American Airlines Group Inc. 2013 Incentive Award Plan Restricted Stock Unit (Cash-Settled) Award Grant Notice and Award Agreement (incorporated by reference to Exhibit 10.125 to AAG's Annual Report on Form 10-K for the year ended December 31, 2013 (Commission File No. 1-8400)).†
10.61	Form of American Airlines Group Inc. 2013 Incentive Award Plan Restricted Stock Unit (Stock-Settled) Award Grant Notice and Award Agreement (incorporated by reference to Exhibit 10.127 to AAG's Annual Report on Form 10-K for the year ended December 31, 2013 (Commission File No. 1-8400)).†
10.62	Form of American Airlines Group Inc. 2013 Incentive Award Plan Restricted Stock Unit (Stock-Settled) Award Grant Notice and Award Agreement for Director Grants (incorporated by reference to Exhibit 10.129 to AAG's Annual Report on Form 10-K for the year ended December 31, 2013 (Commission File No. 1-8400)).†
10.63	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.9 to AAG's Current Report on Form 8-K filed on December 9, 2013 (Commission File No. 1-8400)).†
10.64	US Airways Group, Inc. 2011 Incentive Award Plan (incorporated by reference to Exhibit 4.1 to US Airways Group's Registration Statement on Form S-8 filed on July 1, 2011 (Registration No. 333-175323)).†
10.65	Form of Stock Appreciation Right (Cash-Settled) Award Grant Notice and Stock Appreciation Right (Cash-Settled) Award Agreement under the US Airways Group, Inc. 2011 Incentive Award Plan (incorporated by reference to Exhibit 4.3 to US Airways Group's Registration Statement on Form S-8 filed on July 1, 2011 (Registration No. 333-175323)).†
10.66	Form of Stock Appreciation Right (Stock-Settled) Award Grant Notice and Stock Appreciation Right Award Agreement under the US Airways Group, Inc. 2011 Incentive Award Plan (incorporated by reference to Exhibit 4.4 to US Airways Group's Registration Statement on Form S-8 filed on July 1, 2011 (Registration No. 333-175323)).†
10.67	2014 Short-Term Incentive Program Under 2013 Incentive Award Plan (incorporated by reference to Exhibit 10.8 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 (Commission File No. 1-8400)).†
10.68	Form of Letter Agreement for Directors Travel Program (incorporated by reference to Exhibit 10.106 to US Airways Group's Annual Report on Form 10-K for the year ended December 31, 2007 (Commission File No. 1-8444)).†
10.69	Amended and Restated Employment Agreement, dated as of November 28, 2007, among US Airways Group, US Airways, Inc. and W. Douglas Parker (incorporated by reference to Exhibit 10.1 to US Airways Group's Current Report on Form 8-K filed on November 29, 2007 (Commission File No. 1-8444)).†
10.70	Form of Letter Agreement, dated April 25, 2017, by and between American Airlines Group Inc. and each of Robert D. Isom, Jr., Elise Eberwein, Stephen L. Johnson and Derek J. Kerr (incorporated by reference to Exhibit 10.1 to AAG's Current Report on Form 8-K filed on May 1, 2017 (Commission File No. 1-8400)).†
10.71	Letter Agreement, dated as of April 28, 2016, between American Airlines Group Inc. and W. Douglas Parker (incorporated by reference to Exhibit 10.1 to AAG's Current Report on Form 8-K filed on April 29, 2016 (Commission File No. 1-8400)).†
14.1	

	Code of Ethics (incorporated by reference to Exhibit 14.1 to AAG's Current Report on Form 8-K filed on December 9, 2013 (Commission File No. 1-8400)).
21.1	Significant subsidiaries of AAG and American as of December 31, 2018.
23.1	Consent of Independent Registered Public Accounting Firm – KPMG LLP.
24.1	Powers of Attorney (included in signature page of this Annual Report on Form 10-K).
31.1	Certification of AAG Chief Executive Officer pursuant to Rule 13a-14(a).
31.2	Certification of AAG Chief Financial Officer pursuant to Rule 13a-14(a).
31.3	Certification of American Chief Executive Officer pursuant to Rule 13a-14(a).
31.4	Certification of American Chief Financial Officer pursuant to Rule 13a-14(a).
32.1	Certification pursuant to Rule 13a-14(b) and section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code).

Exhibit Number	Description
32.2	Certification pursuant to Rule 13a-14(b) and section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code).
101.1	Interactive data files pursuant to Rule 405 of Regulation S-T.

Pursuant to Item 601(b)(2) of Regulation S-K promulgated by the Securities and Exchange Commission, certain exhibits and schedules to this agreement have been omitted. Such exhibits and schedules are described in the referenced agreement. AAG and American hereby agree to furnish to the Securities and Exchange Commission, upon its request, any or all of such omitted exhibits or schedules.

* Confidential treatment has been granted with respect to certain portions of this agreement.

** Confidential treatment has

been requested with respect to certain portions of this agreement.

† Management contract or compensatory plan or arrangement.

ITEM 16. FORM 10-K SUMMARY

None.

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.

American Airlines Group Inc.

Date: February 25, 2019 By: /s/ W. Douglas Parker

W. Douglas Parker

Chairman and Chief Executive Officer

(Principal Executive Officer)

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.

American Airlines, Inc.

Date: February 25, 2019 By: /s/ W. Douglas Parker

W. Douglas Parker

Chairman and Chief Executive Officer

(Principal Executive Officer)

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints W. Douglas Parker and Derek J. Kerr and each or any of them, his or her true and lawful attorneys and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to the registrants' Annual Report on Form 10-K for the fiscal year ended December 31, 2018, and to file the same with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys and agents, and each or any of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys and agents, and each of them, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of American Airlines Group Inc. and in the capacities and on the dates noted:

Date: February 25, 2019 /s/ W. Douglas Parker
W. Douglas Parker
Chairman and Chief Executive Officer
(Principal Executive Officer)

Date: February 25, 2019 /s/ Derek J. Kerr
Derek J. Kerr
Executive Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Date: February 25, 2019 /s/ James F. Albaugh
James F. Albaugh, Director

Date: February 25, 2019 /s/ Jeffrey D. Benjamin
Jeffrey D. Benjamin, Director

Date: February 25, 2019 /s/ John T. Cahill
John T. Cahill, Director

Date: February 25, 2019 /s/ Michael J. Embler
Michael J. Embler, Director

Date: February 25, 2019 /s/ Matthew J. Hart
Matthew J. Hart, Director

Date: February 25, 2019 /s/ Alberto Ibargüen
Alberto Ibargüen, Director

Date: February 25, 2019 /s/ Richard C. Kraemer
Richard C. Kraemer, Director

Date: February 25, 2019 /s/ Susan D. Kronick
Susan D. Kronick, Director

Date: February 25, 2019 /s/ Martin H. Nesbitt
Martin H. Nesbitt, Director

Date: February 25, 2019 /s/ Denise M. O'Leary
Denise M. O'Leary, Director

Date: February 25, 2019 /s/ Ray M. Robinson
Ray M. Robinson, Director

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of American Airlines, Inc. and in the capacities and on the dates noted:

Date: February 25, 2019 /s/ W. Douglas Parker
W. Douglas Parker
Chairman and Chief Executive Officer
(Principal Executive Officer)

Date: February 25, 2019 /s/ Derek J. Kerr
Derek J. Kerr
Executive Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Date: February 25, 2019 /s/ Stephen L. Johnson
Stephen L. Johnson, Director

Date: February 25, 2019 /s/ Robert D. Isom
Robert D. Isom, Director