

2021 annual report on form 10-K

American Airlines Group Inc.



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

FORM 10-K

NANUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the Transition Period From Commission file number 1-8400 American Airlines Group Inc. (Exact name of registrant is a greated or the properties of the prop		FORM 10-K						
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OMISSION OF CERTAIN INFORMATION American Airlines, Inc. meets the conditions set forth in General Instruction I(1)(a) and (b) of Form 10-K and has therefore omitted the information otherwise called for by Items 10-13 of Form 10-K as allowed under General Instruction I(2)(c).	American Airlines, Inc. meets the conditions set forth in Gene	eral Instruction I(1)(a) and (b) of Form 1		otherwise called				

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the proxy statement related to American Airlines Group Inc.'s 2022 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, 2021, 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, 2021 Table of Contents

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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, 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.

Glossary of Terms

For the convenience of the reader, the definitions of certain capitalized industry and other terms used in this report have been consolidated into a glossary beginning on page 23.

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," "should," "would," "continue," "seek," "target," "guidance," "outlook," "if current trends continue," "optimistic," "forecast" and other similar words. Such statements include, but are not limited to, statements about our plans, objectives, expectations, intentions, estimates and strategies for the future, the continuing availability of borrowings under revolving lines of credit, 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. In particular, the consequences of the coronavirus (COVID-19) outbreak to economic conditions and the travel industry in general and our financial position and operating results in particular have been material, are changing rapidly, and cannot be predicted. 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. Any forward-looking statements speak only as of the date of this report or as of the dates indicated in the statements.

Summary of Risk Factors

Our business is subject to a number of risks and uncertainties 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. These risks are more fully described in Part I, Item 1A. Risk Factors. These risks include, among others, the following:

Risks Related to our Business

- The outbreak and global spread of COVID-19 has resulted in a severe decline in demand for air travel which has and will continue to adversely impact our business, operating results, financial condition and liquidity.
- Downturns in economic conditions could adversely affect our business.
- · We will need to obtain sufficient financing or other capital to operate successfully.
- 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 pension and other postretirement benefit funding obligations, which may adversely affect our liquidity, results of operations and financial condition.
- If our financial condition worsens, provisions in our credit card processing and other commercial agreements may adversely affect our liquidity.
- The loss of key personnel upon whom we depend to operate our business or the inability to attract and develop additional qualified personnel could adversely affect our business.
- 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.
- 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.
- 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.
- Any damage to our reputation or brand image could adversely affect our business or financial results.
- Changes to our business model that are designed to increase revenues may not be successful and may cause operational difficulties or decreased demand.
- 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 may be a party to litigation in the normal course of business or otherwise, which could affect our financial position and liquidity.
- Our ability to utilize our NOLs and other carryforwards may be limited.
- 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.

Risks Related to the Airline Industry

The airline industry is intensely competitive and dynamic.

- The commercial relationships that we have with other companies, including any related equity investments, may not produce the returns or results we expect.
- Our business is very dependent on the price and availability of aircraft fuel and 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 consumer demand, our operating results and liquidity.
- 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.
- 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 may be adversely affected by conflicts overseas or terrorist attacks; the travel industry continues to face ongoing security concerns.
- We are subject to risks associated with climate change, including increased regulation of our CO₂ emissions, changing consumer preferences and the potential increased impacts of severe weather events on our operations and infrastructure.
- · A shortage of pilots or other personnel could materially adversely affect our business.
- · We depend on a limited number of suppliers for aircraft, aircraft engines and parts.
- 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.
- 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.
- Evolving data security and privacy requirements could increase our costs, and any significant data security or privacy 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.
- We rely on third-party distribution channels and must manage effectively the costs, rights and functionality of these channels.
- 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.

PARTI

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., 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 1 Skyview Drive, Fort Worth, Texas 76155 and their telephone number is 682-278-9000.

Airline Operations

Together with our wholly-owned regional airline subsidiaries and third-party regional carriers operating as American Eagle, our primary business activity is the operation of a major network air carrier, providing scheduled air transportation for passengers and cargo through our hubs in Charlotte, Chicago, Dallas/Fort Worth, Los Angeles, Miami, New York, Philadelphia, Phoenix and Washington, D.C. and partner gateways, including in London, Madrid, Seattle/Tacoma, Sydney and Tokyo (among others).

More than 165 million passengers boarded our flights in 2021, compared to 95 million passengers in 2020 and 215 million passengers in 2019. Since March 2020, we have experienced an unprecedented decline in the demand for air travel due to the impact of COVID-19, which has resulted in a material deterioration in our revenues. Our capacity continues to be reduced compared to pre-COVID-19 pandemic levels, with total capacity in 2021 down 24.7% as compared to 2019. Domestic capacity in 2021 was down 14.5% while international capacity was down 44.9% as compared to 2019. While demand for domestic and short-haul international markets has largely recovered to 2019 levels, uncertainty remains regarding the timing of a full recovery. We will continue to match our forward capacity with observed booking trends for future travel and make further adjustments to our capacity as needed.

COVID-19 has been declared a global health pandemic by the World Health Organization. COVID-19 has surfaced in nearly all regions of the world, which has driven the implementation of significant, government-imposed measures to prevent or reduce its spread, including travel restrictions, testing regimes, closing of borders, "stay at home" orders and business closures. Ongoing global vaccination efforts and the corresponding lifting of government restrictions in and between many markets resulted in a partial recovery in demand for air travel in 2021, which improved our revenues as compared to 2020. However, the return of demand was weaker than previous expectations and the speed and strength of this recovery remain uncertain, primarily due to the global rise in COVID-19 cases associated with the delta and omicron variants and the potential for continuation or reimposition of restrictions on global travel. The continued impact of the COVID-19 pandemic, including any increases in infection rates, new variants and renewed governmental action to slow the spread of COVID-19 cannot be estimated.

As of December 31, 2021, we operated 865 mainline aircraft supported by our regional airline subsidiaries and third-party regional carriers, which together operated an additional 567 regional aircraft. See Part I, Item 2. Properties for further discussion of our mainline and regional aircraft and "Regional" below for further discussion of our regional operations.

American is a founding member of the **one**world[®] Alliance, which brings together a global network of 14 world-class member airlines and their affiliates, working together to provide a superior and

seamless travel experience. See "Distribution and Marketing Agreements" below for further discussion on the **one**world 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 –"2021 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 1(I) to each of AAG's and American's Consolidated Financial Statements in Part II, Items 8A and 8B, respectively, for passenger revenue by geographic region and Note 13 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.

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 Air Inc. (Envoy), PSA and Piedmont, as well as third-party regional carriers including Republic Airways Inc. (Republic), SkyWest Airlines, Inc. (SkyWest), and Mesa Airlines, Inc. (Mesa). Our regional carriers are an integral component of our operating network. We rely heavily on regional carriers to drive 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 many of our mainline markets. All American Eagle carriers use logos, service marks, aircraft paint schemes and uniforms similar to those of our mainline operations. In 2021, 49 million passengers boarded our regional carriers' planes, approximately 44% of whom connected to or from our mainline flights.

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. In 2020, we expanded our cargo service and launched our first cargo-only flights since 1984 to transport critical goods, including COVID-19 vaccines, between the U.S. and Europe, Asia and Latin America. Since March 2020, we have operated more than 10,000 cargo-only flights serving approximately 30 destinations. These cargo-only flights have helped our customers move more than 350 million pounds of critical goods around the world amidst the COVID-19 pandemic and the related pandemic-driven supply chain challenges.

Distribution and Marketing Agreements

Passengers can purchase tickets for travel on American through several distribution channels, including our website (www.aa.com), our mobile app, 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 Booking Holdings, including its booking sites Kayak and Priceline). To remain competitive, we will need to manage our distribution costs and rights effectively, increase our distribution flexibility and improve the functionality of our proprietary and

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 **one**world Alliance, other cooperation agreements, joint business agreements and marketing relationships, as further discussed below.

Member of oneworld Alliance

American is a founding member of the **one**world Alliance, which currently includes Alaska Airlines, British Airways, Cathay Pacific, Finnair, Iberia, Japan Airlines, Malaysia Airlines, Qantas Airways (Qantas), Qatar Airways, Royal Air Maroc, Royal Jordanian Airlines, S7 Airlines and SriLankan Airlines. Fiji Airways is a **one**world connect partner. The **one**world Alliance links the networks of member carriers and their respective affiliates to enhance customer service and provide smooth connections to the destinations served by the alliance, including linking member carriers' loyalty programs and providing reciprocal access to the carriers' airport lounge facilities.

Cooperation and Joint Business Agreements

American has established a transatlantic joint business with British Airways, Aer Lingus, Iberia and Finnair, a transpacific joint business with Japan Airlines and a joint business relating to Australia and New Zealand with Qantas, each of which has been granted antitrust immunity. Joint business agreements enable the carriers involved 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. American and its joint business partners received regulatory approval to enter into these cooperation agreements. Joint business agreements have become a common approach among major carriers 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.

The business relationship under the transatlantic joint business benefits from a grant of antitrust immunity from the U.S. Department of Transportation (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 were binding for 10 years. In October 2018, in anticipation of the exit of the United Kingdom from the European Union (EU), commonly referred to as Brexit, and the expiry of the EC commitments in July 2020, the United Kingdom Competition and Markets Authority (CMA) opened an investigation into the transatlantic joint business. We continue to fully cooperate with the CMA and, in September 2020, the CMA adopted interim measures that effectively extend the EC commitments for an additional three years until March 2024 in light of the uncertainty created by the COVID-19 pandemic. The CMA plans to complete its investigation before the interim measures expire.

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. As of December 31, 2021, American had codeshare and/or loyalty program relationships with Aer Lingus, Air Tahiti Nui, Alaska Airlines, British Airways, Cape Air, Cathay Pacific, China Southern Airlines Company Limited (China Southern Airlines), EL AL Israel Airlines, Etihad Airways, Fiji Airways, Finnair, GOL Linhas Aéreas Inteligentes S.A. (GOL), Gulf Air, Hawaiian Airlines, Iberia, IndiGo, Japan Airlines, JetBlue Airways Corporation (JetBlue), Malaysia Airlines, Qantas, Qatar Airways, Royal Air Maroc, Royal Jordanian Airlines, S7 Airlines, Silver Airways, SriLankan Airlines and Vueling Airlines.

In 2021, we began implementing key aspects of our marketing relationship with JetBlue, creating seamless connectivity for travelers in the U.S. Northeast and more choice for customers across our complementary domestic and international networks. This arrangement includes an alliance agreement with reciprocal codesharing on certain domestic and international routes from New York (John F. Kennedy International Airport (JFK), LaGuardia Airport (LGA) and Newark Liberty International Airport (EWR)) and Boston Logan International Airport (BOS), and provides for reciprocal loyalty program benefits. The arrangement does not include JetBlue's transatlantic flying. Pursuant to federal law, American and JetBlue submitted this proposed alliance arrangement to the DOT for review. After American, JetBlue and the DOT agreed to a series of commitments, the DOT terminated its review of the proposed alliance in January 2021. The commitments include growth commitments to ensure capacity expansion, slot divestitures at JFK and at Ronald Reagan Washington National Airport (DCA) near Washington, D.C. and antitrust compliance measures. Beyond this agreement with the DOT (the DOT Agreement), American and JetBlue will also refrain from certain kinds of coordination on certain city pair markets. Upon the DOT's termination of its review of the proposed alliance, American and JetBlue implemented the proposed alliance subject to these commitments. On September 21, 2021, the United States Department of Justice (DOJ), joined by Attorneys General from six states and the District of Columbia, filed an antitrust complaint against American and JetBlue alleging that American and JetBlue violated U.S. antitrust laws in connection with the Northeast Alliance arrangement (the NEA). We believe the complaint is without merit and intend to defend against it vigorously.

Also, in 2021, we entered into a letter of intent to establish a partnership with JetSmart Airlines SpA (JetSMART), an ultra-low-cost carrier operating from Chile and Argentina to destinations throughout South America. This proposed arrangement includes a codeshare agreement between the two airlines, which would create more options for customers traveling between the U.S. and South America and enable customers to earn and redeem AAdvantage miles on JetSMART flights. We also entered into a letter of intent to deepen our partnership with GOL, Brazil's largest airline, in September 2021, and in February 2022, entered into a definitive investment agreement with GOL pursuant to which we intend to invest \$200 million in exchange for a 5.2% economic interest in GOL. This expanded partnership with GOL includes an exclusive codeshare agreement, allowing customers access to more than 30 destinations served by American in the U.S. and more than 20 new destinations served by GOL in South America. Members of GOL's SMILES and American's AAdvantage loyalty programs will also benefit from a deeper SMILES and AAdvantage loyalty program partnership. In addition, the expanded partnership with GOL will allow further commercial cooperation in areas such as purchasing, sales tools and systems integrations, as allowed by regulatory and contractual limitations. Both the JetSMART and GOL transactions are subject to the satisfaction of closing conditions, certain regulatory approvals and, in the case of the JetSMART transaction, the completion of definitive documentation.

Loyalty Program

Our loyalty program, AAdvantage[®], was established to develop passenger loyalty by offering benefits and awards to travelers for their continued patronage with American and our partners. AAdvantage members earn mileage credits for flying on American, any **one**world Alliance airline or

other partner airlines. For every dollar spent by flying on American, members earn five mileage credits, and Gold, Platinum, Platinum Pro and Executive Platinum status holders earn additional bonus mileage credits of 40%, 60%, 80% and 120%, respectively. Members also earn mileage credits by using the services of more than 1,000 non-flight partners, such as our co-branded credit cards, and certain hotels and car rental companies. The AAdvantage program in general, and our co-branded credit cards in particular, are significant assets of our business and have become increasingly important to our company over time.

All travel on eligible tickets counts toward qualification for 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-flight awards from our program partners. Most travel awards are subject to capacity-controlled seating. A member's mileage credits generally do not expire if that member has any type of qualifying activity at least once every 18 months. In response to the COVID-19 pandemic, we suspended the expiration of mileage credits through March 31, 2022 and eliminated mileage reinstatement fees for canceled award tickets. Status members can enjoy additional travel 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 when traveling on American or any **one**world Alliance airline. In 2021, we announced a redesign of status qualifying metrics. Starting in 2022, AAdvantage members will have more pathways to status and only one metric to track: Loyalty Points, which can be earned through a variety of qualifying travel and non-travel activities, including use of our co-branded credit cards. Additionally, 2020 AAdvantage status was extended through March 31, 2022 for all members.

Under our agreements with AAdvantage members and program partners, we reserve the right to change the terms of the AAdvantage program at any time and 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 2021, our members redeemed approximately 11 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% of our 2021 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 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, Southwest Airlines, Spirit Airlines and United Airlines. Between cities that require a connection, where the major airlines compete via their respective hubs, competition is significant. 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 discounted fares and other promotions to stimulate traffic during normally weak travel periods, when they begin service to new cities, when they have excess capacity, to generate cash flow, to maximize revenue per available seat mile or to establish, increase or preserve market share. Most airlines will quickly match price reductions in a particular market, and we have often elected to match discounted or promotional fares initiated by other air carriers in certain markets in order to compete in those markets. In addition, we face pricing pressures from so-called ultra-low-cost carriers, such as Allegiant Air, Frontier Airlines and Spirit Airlines, which compete in many of the markets in which we operate, with competition from these carriers increasing and new entrants regularly announcing their intention to start up new ultra-low-cost carriers.

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 smaller 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, health and safety and other services.

International

In addition to our extensive domestic service, we provide international service to Canada, Mexico, the Caribbean, Central and South America, Europe, China, Japan, Korea, India, Australia and New Zealand. In 2022, we will launch service to Doha, Qatar, allowing customers to access destinations in the Middle East and the surrounding regions. In providing international air transportation, we compete with other U.S. airlines, foreign investor-owned airlines and foreign state-owned or state-affiliated airlines. Before the COVID-19 pandemic, competition had been increasing from foreign state-owned and state-affiliated airlines in the Gulf region. These carriers have large numbers of international widebody aircraft in service and on order and had been 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 was 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. 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. We expect this to continue after the COVID-19 pandemic subsides. Competition had also been increasing from low-cost airlines executing international long-haul expansion strategies, a trend we also expect to continue after the COVID-19 pandemic subsides and the delivery of planned, long-range narrowbody aircraft commences.

In order to increase our ability to compete in the market 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 joint business agreements to exchange traffic among each other's flights and route networks. See "Distribution and Marketing Agreements" above for further discussion.

Our People

The airline business is labor intensive, and our team members are our most important asset. The operational complexity of our business requires a diverse team of personnel trained and experienced in

a variety of technical areas such as flight operations, ground operations, safety and maintenance, customer service, and airline scheduling and planning. We believe that if we create an environment where our team members feel supported, they will take care of our customers and thereby support the success of our business. To do this, we must continue to build a diverse and inclusive environment, helping all team members reach their full potential and providing them with the right resources and support.

Talent Development

We give our team members the tools, training and resources they need to do their best work. We have a suite of programs aimed at helping our people develop the skills and experience to succeed in their roles and build rewarding, long-term careers within our company. Additionally, we've partnered with leading online learning platforms to make professional development available on-demand to all our team members.

Diversity, Equity and Inclusion

Cultivating an environment that celebrates diversity, equity and inclusion (DEI) is a top priority for us, and we seek to create a workplace where diverse perspectives and experiences are welcomed and encouraged, where team members feel comfortable to be their authentic selves and where we are always learning from one another. Our DEI goals include:

- diversifying our leadership team by establishing specific objectives and laying out a plan to achieve them, including enhancing our recruiting, development and mentoring programs;
- providing additional learning opportunities beyond implicit bias training to generate further education and awareness of diversity and inclusion matters; and
- pledging to assist Black youth in developing job skills and expanding access to well-paying careers as part of our overall strategy to increase opportunities in our hub cities and Tulsa, Oklahoma, where our largest maintenance facility is based.

In 2021, we continued to take steps towards achieving these goals. We:

- increased Black representation at the directors and above level by approximately 80%, exceeding our goal of a 50% increase set at the beginning of 2021;
- announced a second round of the Executive Sponsorship Program, first launched in September 2020, whereby a group of Black leaders have been paired with an executive leader for a year-long mentorship program;
- launched an inclusive workplace DEI training completed by more than 90,000 team members;
- introduced the Inclusion Education Series, a new web-based training series designed to help each team member become an upstander, with the first course focusing on how team members can recognize when something is wrong, act to make it right and better understand microaggressions;
- started using HiredScore, a hiring technology platform designed to ensure accountability and mitigate potential hiring bias;
- partnered with McKinsey & Company to offer select team members access to its Leadership Academies; and
- became one of six companies to receive Fair Pay Workplace's inaugural pay equity certification for our management and support staff team to ensure equitable pay regardless of

gender or race and approximately 86% of our team members are represented by unions and already have built-in pay equity. This certification will require us to undergo regular check-ins for progress to build upon fair pay practices.

Competitive Pay and Comprehensive Benefits

We offer competitive pay, comprehensive benefits and a wide variety of resources designed to support the physical, behavioral and financial well-being of our team members and their families. We're committed to providing medical coverage that is both affordable and flexible along with health care navigation and support tools. Additionally, during the pandemic, we offered COVID-19 testing, paid pandemic leave, and vaccinations to support our team members and ensure the continuity of our operation.

Our internal recognition programs give team members and customers the opportunity to show their appreciation for a job well done, including through our Nonstop Thanks program whereby team members can award each other points for a job well done or as an expression of gratitude. Recognition points earned through the recognition program can be redeemed for items in an online catalog. In 2021, our team members were recognized by customers, peers and company leaders approximately 2 million times and hundreds of team members were nominated for the annual Chairman's Award, the highest honor that we bestow upon our team members.

Our future success depends in large part on our ability to attract, develop and retain highly qualified management, technical and other personnel. For more discussion, see Part I, Item 1A. Risk Factors – "The loss of key personnel upon whom we depend to operate our business or the inability to attract and develop additional qualified personnel could adversely affect our business."

Effects of the COVID-19 Pandemic on our Team Members

The COVID-19 pandemic has resulted in a decline in demand for our services. We have taken aggressive actions since the beginning of the COVID-19 pandemic to mitigate its effects on our business, including capacity reductions, structural changes to our fleet, cost reductions including implementing voluntary leave and early retirement programs, and steps to preserve cash and improve our overall liquidity position, consistent with the terms of the financial assistance we have received from the U.S. Government under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Subtitle A of Title IV of Division N of the Consolidated Appropriations Act, 2021 (PSP Extension Law) and Section 7301 of the American Rescue Plan Act of 2021 (the ARP).

Pursuant to the Payroll Support Program Agreement (PSP1 Agreement), the U.S. Department of Treasury (Treasury), provided us with an aggregate of \$6.0 billion of financial assistance in 2020. In addition, pursuant to the Payroll Support Program Extension Agreement (PSP2 Agreement) and the Payroll Support Program 3 Agreement (PSP3 Agreement), Treasury provided us financial assistance in aggregate of approximately \$3.5 billion and \$3.3 billion, respectively, in 2021. Using these funds, we were able to continue payment of eligible employee wages, salaries and benefits until demand for air travel sufficiently recovered.

Retaining and recruiting people with the appropriate skills is particularly challenging as the economy in general, and the airline industry in particular, continue to recover from the COVID-19 pandemic resulting in competition for the human resources necessary to operate our business successfully. Like many other airlines, we have experienced and continue to experience periodic shortages of frontline team members as a result of, among other things, demand for domestic travel returning more quickly than anticipated and higher than normal team member absences due to the impact of the ongoing COVID-19 pandemic. In advance of the 2021 winter holiday season, one of our busiest travel periods,

we offered a holiday incentive pay program intended to encourage attendance and to recognize our team members for their extraordinary efforts during this difficult time. For more discussion on the effects of the COVID-19 pandemic on our business, including the impact on our people, see Part I, Item 1A. Risk Factors – "The outbreak and global spread of COVID-19 has resulted in a severe decline in demand for air travel which has adversely impacted our business, operating results, financial condition and liquidity. The duration and severity of the COVID-19 pandemic, and similar public health threats that we may face in the future, could result in additional adverse effects on our business, operating results, financial condition and liquidity."

Labor Relations

In 2021, salaries, wages and benefits were our largest expense and represented 43% of our total operating expenses. As of December 31, 2021, we had approximately 123,400 active full-time equivalent employees, approximately 86% of whom were represented by various labor unions responsible for negotiating the collective bargaining agreements (CBAs) governing their compensation and job duties, among other things.

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 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:	Dilete	10.700	2020
Allied Pilots Association (APA)	Pilots	12,700	2020
(APFA)	Flight Attendants	22,000	2019
Airline Customer Service Employee	g	,,	
Association – Communications Workers of			
America and International Brotherhood of		10.000	
Teamsters (CWA-IBT)	Passenger Service	13,800	2020
Transport Workers Union and International Association of Machinists & Aerospace			
Workers (TWU-IAM Association)	Mechanics and Related	11,550	2025
TWU-IAM Association	Fleet Service	17,400	2025
TWU-IAM Association	Stock Clerks	1,750	2025
TWU-IAM Association	Flight Simulator Engineers	130	2021
TWU-IAM Association	Maintenance Control Technicians	170	2025
TWU-IAM Association	Maintenance Training Instructors	90	2025
Professional Airline Flight Control	Dianatahara	450	2021
Association (PAFCA)	Dispatchers Flight Crew Training Instructors	450 320	2021 2021
Transport Workers Official (1990)	riigitt Crew Training matructors	320	2021
Envoy:	-	0.400	0004
Air Line Pilots Associations (ALPA)	Pilots	2,100	2024
(AFA)	Flight Attendants	1,450	2026
TŴU´	Ground School Instructors	10	2023
TWU	Mechanics and Related	1,200	2020
TWU	Stock Clerks	120	2020
TWU	Simulator Instructors	20	2026
TWU	Fleet Service	3,400	2026
TWU	Dispatchers	70	2025
(CWA)	Passenger Service	5,550	2026
	- accorder connec	-,	
Piedmont: ALPA	Pilots	600	2024
AFA	Flight Attendants	300	2019
International Brotherhood of Teamsters	r light / ttoridants	000	2010
(IBT)	Mechanics and Related	350	2021
IBT	Stock Clerks	50	2021
CWA	Fleet and Passenger Service	5,700	2023
IBT	Dispatchers	30 30	2024 2024
ALPA	Flight Crew Training Instructors	30	2024
PSA:			
ALPA	Pilots	1,750	2023
AFA	Flight Attendants	1,250	2023
International Association of Machinists & Aerospace Workers (IAM)	Mechanics and Related	800	2022
TWU	Dispatchers	50	2022
	Diopatoriolo	30	2027

⁽¹⁾ Represents approximate number of active employees as well as employees who opted for a voluntary partially paid leave as a result of the COVID-19 pandemic as of December 31, 2021.

Joint collective bargaining agreements (JCBAs) covering our mainline pilots, flight attendants, passenger service, flight simulator engineers and dispatchers are now amendable. In January 2022, our mainline flight crew training instructors ratified a three-year agreement which is now amendable in 2025. Among our wholly-owned regional subsidiaries, the Envoy mechanics and related, Envoy stock clerks, Piedmont flight attendants, Piedmont mechanics and related and Piedmont stock clerks have agreements that are now amendable and are engaged in traditional RLA negotiations. In January 2022, the Piedmont flight attendants reached a tentative four-year 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 materially affected by the availability and price of aircraft fuel, which represents one of the largest single cost items in our business. Based on our 2022 forecasted mainline and regional fuel consumption, we estimate that a one cent per gallon increase in the price of aircraft fuel would increase our 2022 annual fuel expense by approximately \$40 million.

The following table shows annual aircraft fuel consumption and costs, including taxes, for our mainline and regional operations for 2021 and 2020 (gallons and aircraft fuel expense in millions).

Year	Gallons			Operating Expenses
2021	3,324	\$2.04	\$6,792	22.0%
2020	2,297	\$1.48	\$3,402	12.3%

As of December 31, 2021, we did not have any fuel hedging contracts outstanding to hedge our fuel consumption. 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. 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 aircraft fuel prices.

Aircraft fuel prices have in the past, and may in the future, experience substantial volatility. We cannot predict the future availability, price volatility or cost of aircraft fuel. For more discussion, 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 consumer demand, 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 in a quarterly or annual period are not necessarily indicative of future operating results.

The COVID-19 outbreak, along with the measures governments and private organizations worldwide have implemented in an attempt to contain the spread of this pandemic, has resulted in a decline in demand for air travel, which has adversely affected our business, operations and financial condition to an unprecedented extent, and affected the traditional seasonal trends of the airline business. Measures ranging from travel restrictions, including testing regimes, "stay at home" and quarantine orders, limitations on public gatherings to cancellation of public events and many others have resulted in a decline in demand for travel.

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 and regulates domestic and international codeshare agreements, international route authorities, competition and consumer protection matters including, among other things, accessibility, advertising and fee display, and refund practices. The Antitrust Division of the 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 (JFK and LGA in New York City, and DCA near 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 DCA and LGA 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 1,250 and 1,500 miles, respectively. Generally, our ability to retain slots is conditioned on the continued use of such slots, and in the absence of use, the slots are subject to forfeiture. Since the beginning of the COVID-19 pandemic and through the Winter 2021-2022 season, global regulators have offered varying levels of slot utilization requirement waivers. In some jurisdictions, we have used these waivers at times to reduce flying levels given limited demand for travel. We cannot guarantee that such waivers will remain available to us, or that upon expiration or cancellation of such waivers it will be economical for us to resume prior levels of flying to destinations where we currently operate a reduced service. If we are forced to surrender slots, we may be unable to provide our desired level of service to or from certain destinations in the future. For more discussion, see Part I, Item 1A Risk Factors - "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 ability to provide service can also be impaired at airports, such as Chicago O'Hare International Airport (ORD) 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, or airports such as Dallas Love Field Airport where we have no access to gates at all.

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 only 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 2022, the DOT is expected to propose or implement a number of new regulations that will impact us, including disability rules for accessible lavatories and wheelchair assistance, refund requirements, display of ancillary fees during initial flights search, and refunds for 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 and the United Kingdom. Moreover, our 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 130 trading partners, which allow unrestricted route authority access between the U.S. and the foreign markets.

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 and curfew 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, 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.

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 storm water 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.

We employ an environmental management system that provides a systematic approach for compliance with environmental regulations and management of a broad range of issues including air emissions, hazardous waste disposal, underground tanks, and aircraft water quality.

Aircraft Emissions and Climate Change Requirements

Efforts to transition to a low-carbon future have increased the focus by global, regional and national regulators on climate change and greenhouse gas (GHG) emissions. We recognize that air travel impacts the environment and have committed to develop an intermediate, science-based target for reducing GHG emissions by the year 2035 with the goal to achieve net-zero carbon emissions by

2050. In addition to investing in strategic partnerships in an effort to help develop and support emissions-reduction solutions and accelerate clean energy technologies, we have taken a number of actions that mitigate the GHG emitted by our operations both en route and on the ground, such as:

- retiring older, less fuel-efficient aircraft and replacing them with new, more fuel-efficient aircraft, resulting in the youngest mainline fleet of any U.S. network carrier;
- reducing fuel consumption through operational initiatives such as single-engine taxi, optimal planned arrival fuel and our new flight planning system;
- entering into agreements to purchase sustainable aviation fuel;
- working with the FAA and vendors to facilitate efficient airspace procedures, which in turn reduce aircraft emissions:
- updating our fleet with lightweight interiors, including seats and furnishings, and replacing existing cargo containers with lighter weight versions;
- replacing older, inefficient ground support equipment with new, more fuel-efficient ground support equipment, including electric powered equipment;
- purchasing renewable electricity to reduce indirect emissions associated with the production of the power we consume; and
- obtaining certification of certain of our buildings to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) standard.

American is subject to the requirements of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), an international, market-based emissions reduction program adopted by the International Civil Aviation Organization (ICAO) in 2016. CORSIA is intended to achieve carbonneutral growth in the international aviation sector from 2021 through 2035 by requiring airlines to compensate for the growth in carbon dioxide (CO₂) emissions, relative to a predetermined "baseline," of a significant majority of international flights through the purchase of carbon offsets or the use of low-carbon fuels. For each year from 2021 through 2029, CORSIA requires each airline to compensate for the rate of growth of the CO₂ emissions of the aviation sector as a whole as determined by ICAO. Starting in 2030, CORSIA will require airlines to compensate for growth in CO₂ emissions using a formula determined by ICAO that will combine the growth in aviation sector emissions and the growth in the individual airline's emissions, with the proportion of the latter rising from at least 20 percent over the period 2030-2032 and to at least 70 percent over the period 2033-2035.

ICAO originally defined the baseline as the average emissions from covered flights in 2019 and 2020. Due to the COVID-19 pandemic, ICAO decided to remove 2020 emissions from the baseline for the CORSIA "pilot phase" (2021-2023). ICAO is expected to make a decision about the baseline for CORSIA's "first phase" (2024-2026) by the end of 2022. At this point, it is unclear whether ICAO will decide to continue with the 2019-only emissions baseline for future CORSIA implementation phases; certain environmental groups have advocated for reverting to the original baseline, which would make the CORSIA reduction obligations more stringent and increase the cost of compliance under CORSIA.

Currently, we do not expect to be required to purchase carbon offset credits to comply with CORSIA through 2023, unless the recovery in demand for international travel is unexpectedly strong and exceeds that of 2019 in those years.

Starting in 2024, CORSIA compliance costs are uncertain, primarily because of the difficulty in estimating the return of demand for international air travel in the recovery from the pandemic. There is also significant uncertainty with respect to the future supply and price of carbon offset credits and sustainable or lower carbon aircraft fuels that could allow us to reduce our emissions of CO₂. In

addition, as described above, we will not directly control our CORSIA compliance costs because our compliance obligations through 2029 are based on the growth in emissions of the global aviation sector and begin to incorporate a factor for individual airline operator emissions growth starting in 2030.

In January 2021, the EPA adopted GHG emission standards for new aircraft engines, which are aligned with the 2017 ICAO aircraft engine GHG emission standards. Like the ICAO standards, the final EPA standards for new aircraft engines would not apply retroactively to engines already on in-service aircraft. These final standards have been challenged by several states and environmental groups, and the Biden Administration has issued an executive order requiring a review of these final standards. On November 15, 2021, the EPA announced that it will not rewrite the existing aircraft engine GHG emissions standards but will press for ambitious new aircraft GHG emission standards at international negotiations organized by the ICAO in 2022. The outcome of the legal challenge and the development of new aircraft GHG emissions standards cannot be predicted at this time. In addition, on September 9, 2021, the Biden Administration launched the Sustainable Aviation Fuel Grand Challenge to scale up the production of sustainable aviation fuel, aiming to reduce GHG emissions from aviation by 20% by 2030 and to replace all traditional aviation fuel with sustainable aviation fuel by 2050. Whether these goals will be achieved and the potential effects on our business cannot be predicted at this time.

In 2021, the EC proposed legislation that would expand the application of and increase the stringency of the EU Emission Trading Scheme (ETS) to include flights into and out of the Europe Economic Area beginning in 2027 under certain circumstances. Further, the EC is considering the creation of a sustainable aviation fuel (SAF) blending mandate for aviation fuel suppliers beginning in 2025, among other requirements. Individual EU member states have been developing their own requirements including, for example, a SAF mandate in France that came into force on January 1, 2022.

All such climate change-related regulatory activity and developments may adversely affect our business and financial results by requiring us to reduce our emissions before cost-effective emissions reduction technologies are available, for example, through requirements to make capital investments to purchase specific types of equipment or technologies, purchase carbon offset credits, or otherwise incur additional costs related to our emissions. Such activity may also impact us indirectly by increasing our operating costs, including fuel costs.

For more information on American's approach to ESG issues, see our 2020 ESG Performance Review and 2019-2020 ESG Report at our website *www.aa.com* under "Environmental, Social and Governance." None of the information or contents of our 2020 ESG Performance Review and 2019-2020 ESG Report are 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. For additional information, see Part I, Item 1A. Risk Factors – "Evolving data security and privacy requirements could increase our costs, and any significant data security or privacy 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 of our CO₂ emissions, changing consumer preferences and the potential increased impacts of severe weather events on our operations and infrastructure."

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.

GLOSSARY OF TERMS

- "2013 Credit Agreement" means the Amended and Restated Credit and Guaranty Agreement dated as of May 21, 2015, among American, AAG, the lenders from time to time party thereto, Deutsche Bank AG New York Branch, as administrative agent, and certain other parties thereto, as amended.
- "2013 Credit Facilities" means the 2013 Revolving Facility and 2013 Term Loan Facility provided for by the 2013 Credit Agreement.
- "2013 Framework" means the criteria for internal control over financial reporting as set forth in the Internal Control Internal Framework by the Committee of Sponsoring Organizations of the Treadway Commission.
 - "2013 Plan" means the AAG 2013 Incentive Award Plan.
- "2013 Revolving Facility" means the revolving credit facility provided for by the 2013 Credit Agreement.
- "2013 Term Loan Facility" means the term loan facility provided for under the 2013 Credit Agreement.
- "2014 Credit Agreement" means the Amended and Restated Credit and Guaranty Agreement, dated as of April 20, 2015, among American, AAG, the lenders from time to time party thereto, Citibank N.A., as administrative agent, and certain other parties thereto, as amended.
- "2014 Credit Facilities" means the 2014 Revolving Facility and the 2014 Term Loan Facility provided for by the 2014 Credit Agreement.
- "2014 Revolving Facility" means the revolving credit facility provided for by the 2014 Credit Agreement.
 - "2014 Term Loan Facility" means the term loan facility provided for by the 2014 Credit Agreement.
- "2016 JFK Bonds" means special facility revenue bonds issued on behalf of American by NYTDC in June 2016.
- "2020 Form 10-K" means AAG's and American's Annual Report on Form 10-K for the year ended December 31, 2020.
- "2020 JFK Bonds" means special facility revenue bonds issued on behalf of American by NYTDC in June 2020.
 - "2021 JFK Bonds" means special facility revenue bonds NYTDC issued in June 2021.
- "2021-1 Aircraft" means the 26 aircraft financed or to be financed by American under the 2021-1 Aircraft EETCs.
- "2021-1 Aircraft EETCs" means the two pass-through trusts created by American in November 2021 that have issued approximately \$960 million aggregate face amount of Series 2021-1 Class A and Class B EETCs.
 - "2026 Notes" means the AAdvantage Issuers' 5.50% senior secured notes due 2026.
 - "2029 Notes" means the AAdvantage Issuers' 5.75% senior secured notes due 2029.

"3.75% Senior Notes" mean 3.75% senior notes due 2025 with an aggregate principal amount of \$500 million.

"5.000% Senior Notes" means the 5.000% senior notes due in 2022 with an aggregate principal amount of \$750 million.

"10.75% Senior Secured Notes" means, collectively, the LGA/DCA Notes and the IP Notes.

"10.75% Senior Secured Notes Closing Date" means September 25, 2020.

"10.75% Senior Secured Notes Collateral" means the IP Collateral and LGA/DCA Collateral.

"10.75% Senior Secured Notes Indentures" means the IP Notes Indenture and the LGA/DCA Notes Indenture.

"10.75% Senior Secured Notes Trustee" means Wilmington Trust, National Association, as trustee with respect to the 10.75% Senior Secured Notes.

"11.75% Senior Secured Notes" means the 11.75% senior secured notes due in 2025 with an aggregate principal amount of \$2.5 billion.

"11.75% Senior Secured Notes Collateral" means the First Lien 11.75% Senior Secured Notes Collateral and the Second Lien 11.75% Senior Secured Notes Collateral.

"11.75% Senior Secured Notes Indenture" means the indenture, dated as of June 30, 2020, by and among American, AAG and Wilmington Trust, National Association, as trustee.

"11.75% Senior Secured Notes Trustee" means Wilmington Trust, National Association, as trustee with respect to the 11.75% Senior Secured Notes.

"AAdvantage" means the AAdvantage® frequent flyer program.

"AAdvantage Agreements" means the AAdvantage program agreements provided as collateral under the AAdvantage Financing.

"AAdvantage Collateral" means the AAdvantage Agreements (including all payments thereunder) and rights under an intercompany agreement and certain IP Licenses, certain rights under the AAdvantage program, certain deposit accounts that will receive cash under the AAdvantage Agreements, certain reserve accounts, the equity of each of Loyalty Issuer and the SPV Guarantors and substantially all other assets of Loyalty Issuer and the SPV Guarantors.

"AAdvantage Financing" means the AAdvantage Notes and the AAdvantage Term Loan Facility.

"AAdvantage Financing Closing Date" means March 24, 2021.

"AAdvantage Guarantees" means the AAdvantage Note Guarantees, together with the full and unconditional guarantee of the AAdvantage Loans by the AAdvantage Guarantors.

"AAdvantage Guarantors" means the SPV Guarantors and AAG.

"AAdvantage Indenture" means the indenture, dated as of March 24, 2021, by and among the AAdvantage Issuers, the AAdvantage Guarantors and Wilmington Trust, National Association, as trustee and as collateral custodian.

"AAdvantage Issuers" means the Loyalty Issuer and American.

"AAdvantage Loans" means the \$3.5 billion of term loans provided pursuant to the AAdvantage Term Loan Facility.

"AAdvantage Note Guarantees" means the full and unconditional guarantee of the AAdvantage Notes by the AAdvantage Guarantors.

"AAdvantage Notes" means, collectively, the 2026 Notes and the 2029 Notes.

"AAdvantage Payment Date" means, with respect to the payment of interest on the AAdvantage Notes and AAdvantage Loans, the 20th day of each January, April, July and October.

"AAdvantage Term Loan Facility" means the \$3.5 billion term loan facility provided pursuant to the term loan credit and guaranty agreement, dated as of March 24, 2021, with Barclays Bank PLC, as administrative agent, Wilmington Trust, National Association, as collateral administrator, and the lenders party thereto.

"AAG", "we", "us", "our" and similar terms means American Airlines Group Inc. and its consolidated subsidiaries.

"AAL" means the trading symbol under which AAG common stock is listed and traded on the Nasdaq Global Select Market.

"AFA" means Association of Flight Attendants-CWA.

"ALPA" means Air Line Pilots Association.

"American" means American Airlines, Inc., a wholly-owned subsidiary of AAG.

"American Eagle" means our regional carriers, including our wholly-owned regional carriers Envoy, PSA and Piedmont, as well as third-party regional carriers including Mesa, Republic and SkyWest.

"AMR" or "AMR Corporation" means AMR Corporation and is used to reference AAG during the period of time prior to its emergence from Chapter 11 and the Merger.

"AOCI" means accumulated other comprehensive income (loss).

"APA" means Allied Pilots Association.

"APFA" means Association of Professional Flight Attendants.

"April 2016 Credit Agreement" means the Credit and Guaranty Agreement, dated as of April 29, 2016, among American, AAG, the lenders from time to time party thereto, Barclays Bank PLC, as administrative agent, and certain other parties thereto, as amended.

"April 2016 Credit Facilities" means the April 2016 Revolving Facility and April 2016 Spare Parts Term Loan Facility provided for by the 2016 Credit Agreement.

"April 2016 Revolving Facility" means the revolving credit facility provided for by the April 2016 Credit Agreement.

"April 2016 Spare Parts Term Loan Facility" means the term loan facility provided for by the April 2016 Credit Agreement.

"ARP" means the American Rescue Plan Act of 2021.

"ASM" means available seat mile and is a basic measure of production. One ASM represents one seat flown one mile.

"ASU" means Accounting Standards Update.

"ATC" means air traffic control.

"ATC system" means the U.S. National Airspace System.

"Aviation Act" means subtitle VII of Title 49 of the United States Code, as amended.

"Bankruptcy Court" means the United States Bankruptcy Court for the Southern District of New York.

"Base Indenture" means the indenture, dated as of June 25, 2020, between AAG and the Convertible Notes Trustee.

"Boeing" means The Boeing Company.

"BOS" means Boston Logan International Airport.

"Bylaws" means AAG's Amended and Restated Bylaws, as amended.

"CARES Act" means the Coronavirus Aid, Relief, and Economic Security Act.

"CASM" means total operating cost per available seat mile and is equal to total operating expenses divided by ASMs.

"CBAs" means collective bargaining agreements.

"CEO" means Chief Executive Officer.

"CFO" means Chief Financial Officer.

"Chapter 11 Cases" means the voluntary petitions for relief filed on November 29, 2011 by the Debtors.

"China Southern Airlines" means China Southern Airlines Company Limited.

"CMA" means the United Kingdom Competition and Markets Authority.

"CO₂" means carbon dioxide.

"Code" means the Internal Revenue Code of 1986, as amended.

"Company" means AAG and its consolidated subsidiaries.

"Convertible Notes" means AAG's 6.50% convertible senior notes due 2025.

"Convertible Notes Indenture" means the Base Indenture and the Convertible Notes Supplemental Indenture.

"Convertible Notes Guarantee" means the full and unconditional guarantee of the Convertible Notes by American.

"Convertible Notes Supplemental Indenture" means the first supplemental indenture, dated as of June 25, 2020, among AAG, American and the Convertible Notes Trustee.

"Convertible Notes Trustee" means Wilmington Trust, National Association, as trustee with respect to the Convertible Notes.

"CORSIA" means the Carbon Offsetting and Reduction Scheme for International Aviation.

"COVID-19" refers to a respiratory illness first detected in 2019 and the ensuing global pandemic that remains ongoing as of the date of this report.

"Credit Facilities" means, collectively, the 2013 Credit Facilities, 2014 Credit Facilities, April 2016 Credit Facilities and December 2016 Credit Facilities.

"CWA" means Communications Workers of America.

"CWA-IBT" means the Airline Employees Customer Service Association – Communications Workers of America and International Brotherhood of Teamsters.

"DCA" means Ronald Reagan Washington National Airport.

"DCR" means disputed claims reserve, a reserve established by the Bankruptcy Court, pursuant to the Plan, to hold shares of AAG common stock for issuance to disputed claimholders as of the Effective Date or, alternatively, to former holders of AMR common stock or former holders of certain AMR convertible notes.

"DC Court" means the Federal District Court for the District of Columbia.

"Debtors" means AMR, American, and certain of AMR's other direct and indirect domestic subsidiaries.

"December 2016 Credit Agreement" means the Credit and Guaranty Agreement dated as of December 15, 2016, among American, AAG, the lenders from time to time party thereto, Citibank N.A., as administrative agent, and certain other parties thereto, as amended.

"December 2016 Credit Facilities" means, collectively, the December 2016 Term Loan Facility and the revolving credit facility that may be established under the December 2016 Credit Agreement.

"December 2016 Term Loan Facility" means the term loan facility provided for under the December 2016 Credit Agreement.

"DEI" means diversity, equity and inclusion.

"Delayed Draw Term Loan Credit Facility" means the Credit and Guaranty Agreement dated as of March 18, 2020, among American, AAG, the lenders from time to time party thereto, Citibank N.A., as administrative agent, and certain other parties thereto, as amended.

"DOJ" means the United States Department of Justice.

"DOT" means the United States Department of Transportation.

"DOT Agreement" means the agreement reached between the DOT, American, and JetBlue in January 2021, following the termination of DOT's review of the NEA.

"EC" means the European Commission.

"EETC" means enhanced equipment trust certificate.

"Effective Date" means December 9, 2013.

"Eighth Amendment" means the Eighth Amendment entered into in January 2020 to the 2014 Credit Agreement.

"Envoy" means Envoy Air Inc.

"EPA" means the U.S. Environmental Protection Agency.

"EPS" means earnings (loss) per common share.

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended.

"Ethics Standards" means AAG's and American's Standards of Business Conduct.

"ETS" means Emission Trading Scheme.

"EU" means European Union.

"EU-UK Trade and Cooperation Agreement" means the trade and cooperation agreement between the EU and United Kingdom.

"eVTOL" means electric vertical take-off and landing.

"EWR" means Newark Liberty International Airport.

"Exchange Act" means Securities Exchange Act of 1934, as amended.

"FAA" means Federal Aviation Administration.

"First Lien 11.75% Senior Secured Notes Collateral" means certain assets, rights and properties utilized by American in providing its scheduled air carrier services to and from certain airports in the United States and certain airports in Australia, Canada, the Caribbean, Central America, China, Hong Kong, Japan, Mexico, South Korea, and Switzerland which are used to secure the 11.75% Senior Secured Notes on a first-lien basis.

"GAAP" means generally accepted accounting principles in the U.S.

"GDSs" means global distribution systems.

"GHG" means greenhouse gas.

"GOL" means GOL Linhas Aéreas Inteligentes S.A.

"GSPC" means S&P 500 Index.

"holdback" means an amount of cash held by our credit card processors in certain circumstances (including, with respect to certain agreements, our failure to maintain certain levels of liquidity).

"HoldCo2" means AAdvantage Holdings 2, Ltd., a Cayman Islands exempted company incorporated with limited liability and an indirect wholly owned subsidiary of American and the direct parent of Loyalty Issuer.

"IAM" means International Association of Machinists & Aerospace Workers.

"IAM Pension Fund" means the IAM National Pension Fund.

"IBT" means International Brotherhood of Teamsters.

"ICAO" means International Civil Aviation Organization.

"IP Collateral" means certain intellectual property of American, including the "American Airlines" trademark and the "aa.com" domain name in the United States and certain foreign jurisdictions, to which American has given a first lien security interest to secure the IP Notes.

"IP Licenses" means the series of intercompany license agreements pursuant to which an exclusive, irrevocable (subject to certain termination rights), perpetual, worldwide, royalty-bearing sublicense to use the Transferred AAdvantage IP was granted indirectly by Loyalty Issuer to American.

"IP Notes" means American's \$1.0 billion in initial principal amount of 10.75% senior secured IP notes.

"IP Notes Indenture" means the indenture, dated as of September 25, 2020, by and among American, AAG and Wilmington Trust, National Association, as trustee and as collateral trustee, pursuant to which the IP Notes were issued.

"JCBA" means joint collective bargaining agreement.

"JetBlue" means JetBlue Airways Corporation.

"JetSMART" means JetSmart Airlines SpA.

"JFK" means John F. Kennedy International Airport.

"LAWA" means the Los Angeles World Airports.

"LAX" means Los Angeles International Airport.

"LEED" means U.S. Green Building Council's Leadership in Energy and Environmental Design.

"LGA/DCA Collateral" means certain slots related to American's operations at LGA and DCA and certain other assets that are used as (a) a first-lien security interest to secure the December 2016 Credit Facilities, (b) a first lien security interest to secure the LGA/DCA Notes and (c) a second lien security interest to secure the IP Notes.

"LGA/DCA Notes" means American's \$200 million in initial principal amount of 10.75% senior secured LGA/DCA notes.

"LGA/DCA Notes Indenture" means the indenture, dated as of September 25, 2020, by and among American, AAG and Wilmington Trust, National Association, as trustee and as collateral trustee, pursuant to which the LGA/DCA Notes were issued.

"LGA" means LaGuardia Airport.

"LGW" or "London Gatwick" means London Gatwick Airport.

"LHR" or "London Heathrow" means London Heathrow Airport.

"LIBOR" means the London interbank offered rate for deposits of U.S. dollars.

"Loyalty Issuer" means AAdvantage Loyalty IP Ltd., a Cayman Islands exempted company incorporated with limited liability and an indirect wholly owned subsidiary of American and co-issuer of the AAdvantage Notes.

"LTV" means loan to value ratio.

"Madrid IP SCS" means Madrid IP Lux HoldCo SCS, a Luxembourg common limited partnership (société en commandite simple) and an indirect subsidiary of Loyalty Issuer.

"Madrid SPV Guarantors" means certain Luxembourg limited liability companies and partnerships that are direct or indirect subsidiaries of Loyalty Issuer and which fully and unconditionally guarantee the AAdvantage Financing.

"Mainline" means the operations of American and excludes regional operations.

"marketing component" means, with respect to the AAdvantage program, the use of intellectual property, including the American brand and access to loyalty program member lists, which is the predominant element in the co-branded credit card agreements, as well as advertising.

"Merger" means the merger of US Airways Group and AMR Corporation on December 9, 2013.

"Mesa" means Mesa Airlines, Inc.

"MOU" means memorandum of understanding.

"NEA" means Northeast Alliance arrangement between American and JetBlue.

"NMB" means National Mediation Board.

"NOLs" means net operating losses.

"NYSE" means the New York Stock Exchange.

"NYTDC" means the New York Transportation Development Corporation.

"ORD" means Chicago O'Hare International Airport.

"Original SPV Guarantors" means AAdvantage Holdings 1, Ltd. and HoldCo2.

"OSHA" means Occupational Health and Safety Administration.

"OTAs" means online travel agents.

"PAFCA" means Professional Airline Flight Control Association.

"Passenger load factor" means the percentage of available seats that are filled with revenue passengers.

"PCAOB" means the Public Company Accounting Oversight Board in the U.S.

"PEB" means Presidential Emergency Board.

"PFAS" means per- and polyfluoroalkyl substances.

"Piedmont" means Piedmont Airlines, Inc.

"Plan" means the Debtors' fourth amended joint plan of reorganization.

"PRASM" means passenger revenue per available seat mile and is equal to passenger revenues divided by ASMs.

"Proxy Statement" means American Airlines Group Inc.'s Proxy Statement for the 2022 Annual Meeting of Stockholders of American Airlines Group Inc.

"PSA" means PSA Airlines, Inc.

"PSP1" means the payroll support program established under the CARES Act.

"PSP1 Agreement" means the Payroll Support Program Agreement entered into by the Subsidiaries with Treasury on the PSP1 Closing Date.

"PSP1 Closing Date" means April 20, 2020.

"PSP1 Financial Assistance" means the portion of financial assistance received from Treasury pursuant to the PSP1 Agreement that is not allocated to the PSP1 Warrants or PSP1 Promissory Note.

"PSP1 Maturity Date" means the tenth anniversary of the PSP1 Closing Date.

"PSP1 Promissory Note" means the promissory note issued to Treasury in connection with PSP1.

"PSP1 Warrant Agreement" means the agreement entered into between AAG and Treasury in connection with the PSP1 Agreement, pursuant to which AAG issued PSP1 Warrants to Treasury to purchase up to an aggregate of approximately 14.1 million shares of AAG common stock.

"PSP1 Warrants" means the warrants issued or to be issued to Treasury pursuant to the PSP1 Warrant Agreement.

"PSP1 Warrant Shares" means up to approximately 14.1 million shares of AAG common stock which Treasury will have the right to purchase pursuant to PSP1 Warrants issued by AAG in accordance with the PSP1 Warrant Agreement.

"PSP2" means the payroll support program established under the PSP Extension Law.

"PSP2 Agreement" means the Payroll Support Program Extension Agreement entered into by the Subsidiaries with Treasury on the PSP2 Closing Date.

"PSP2 Closing Date" means January 15, 2021.

"PSP2 Financial Assistance" means the portion of financial assistance received from Treasury pursuant to the PSP2 Agreement that is not allocated to the PSP2 Warrants or PSP2 Promissory Note.

"PSP2 Maturity Date" means the tenth anniversary of the PSP2 Closing Date.

"PSP2 Promissory Note" means the promissory note issued to Treasury in connection with PSP2.

"PSP2 Warrant Agreement" means the agreement entered into between AAG and Treasury in connection with the PSP2 Agreement, pursuant to which AAG issued PSP2 Warrants to Treasury to purchase the PSP2 Warrant Shares.

"PSP2 Warrant Shares" means up to an aggregate of approximately 6.6 million shares of AAG common stock which Treasury will have the right to purchase pursuant to PSP2 Warrants issued or to be issued by AAG in accordance with the PSP2 Warrant Agreement.

"PSP2 Warrants" means the warrants issued or to be issued to Treasury pursuant to the PSP2 Warrant Agreement.

"PSP3" means the payroll support program established under the ARP.

"PSP3 Agreement" means the Payroll Support Program Agreement entered into by the Subsidiaries with Treasury on the PSP3 Closing Date.

"PSP3 Closing Date" means April 23, 2021.

"PSP3 Financial Assistance" means the portion of financial assistance received from Treasury pursuant to the PSP3 Agreement that is not allocated to the PSP3 Warrants or PSP3 Promissory Note.

"PSP3 Maturity Date" means the tenth anniversary of the PSP3 Closing Date.

"PSP3 Promissory Note" means the promissory note issued to Treasury in connection with PSP3.

"PSP3 Warrant Agreement" means the agreement entered into between AAG and Treasury in connection with the PSP3 Agreement, pursuant to which AAG issued PSP3 Warrants to Treasury to purchase the PSP3 Warrant Shares.

"PSP3 Warrant Shares" means up to an aggregate of approximately 4.4 million shares of AAG common stock which Treasury will have the right to purchase pursuant to PSP3 Warrants issued or to be issued by AAG in accordance with the PSP3 Warrant Agreement.

"PSP3 Warrants" means the warrants issued or to be issued to Treasury pursuant to the PSP3 Warrant Agreement.

"PSP Extension Law" means Subtitle A of Title IV of Division N of the Consolidated Appropriations Act, 2021.

"Rehabilitation Plan" means the rehabilitation plan adopted by the IAM Pension Fund on April 17, 2019.

"Republic" means Republic Airways Inc.

"Republic Holdings" means Republic Airways Holdings Inc., the parent company of Republic.

"RLA" means Railway Labor Act.

"ROU" means right-of-use.

"RPM" or "RPMs" means revenue passenger mile or miles and is a basic measure of sales volume. One RPM represents one passenger flown one mile.

"RSUs" means restricted stock units.

"S&P" means Standard and Poor's Financial Services, LLC.

"SAF" means sustainable aviation fuel.

"SAIB" means special airworthiness information bulletin.

"SEC" means Securities and Exchange Commission.

"Second Lien 11.75% Senior Secured Notes Collateral" means certain assets, rights and properties utilized by American in providing its scheduled air carrier services to and from certain airports in the United States and certain airports in the European Union and the United Kingdom which are used to secure the 11.75% Senior Secured Notes on a second-lien basis.

"Section 382" means Section 382 of the Internal Revenue Code.

"Securities Act" means Securities Act of 1933, as amended.

"SkyWest" means SkyWest Airlines, Inc.

"slots" means landing and take-off rights and authorizations, as required by certain airports.

"SOFR" means the Secured Overnight Financing Rate.

"SPV Guarantors" means the Original SPV Guarantors and the Madrid SPV Guarantors.

"Subsidiaries" means American, Envoy, PSA and Piedmont, each a wholly-owned subsidiary of AAG.

"Superfund Act" means Comprehensive Environmental Response, Compensation and Liability Act.

"Tax Benefits Preservation Plan" means the tax benefits preservation plan adopted by the Board of Directors of AAG in December 2021 in order to preserve the Company's ability to use its NOLs and certain other tax attributes to reduce potential future income tax obligations.

"Terminal" means the passenger terminal facility used by American at JFK.

"Transferred AAdvantage IP" means, among other things, American's rights to certain data and other intellectual property used in the AAdvantage program (subject to certain exceptions).

"TRASM" means the total revenue per available seat mile and is equal to the total revenues divided by total mainline and third-party regional carrier ASMs.

"Treasury" means the U.S. Department of the Treasury.

"Treasury Loan Agreement" means the Loan and Guarantee Agreement, dated as of September 25, 2020, between AAG, American and Treasury which provides for the Treasury Term Loan Facility.

"Treasury Loan Closing Date" means September 25, 2020.

"Treasury Loan Warrant Agreement" means the warrant agreement, dated as of September 25, 2020, between AAG and Treasury entered into in connection with the Treasury Loan Agreement, pursuant to which AAG issued Treasury Loan Warrants to Treasury to purchase shares of AAG common stock.

"Treasury Loan Warrants" means the warrants issued to Treasury pursuant to the Treasury Loan Warrant Agreement.

"Treasury Loan Warrant Shares" means the shares of AAG common stock which Treasury will have the right to purchase pursuant to Treasury Loan Warrants issued by AAG in accordance with the Treasury Loan Warrant Agreement.

"Treasury Term Loan Facility" means the term loan facility provided for under the Treasury Loan Agreement.

"TSA" means Transportation Security Administration.

"TWU" means Transport Workers Union.

"TWU-IAM Association" means Transport Workers Union and International Association of Machinists & Aerospace Workers.

"US Airways Group" means US Airways Group, Inc. and its consolidated subsidiaries.

"USTR" means the Office of the U.S. Trade Representative.

"Vertical" means Vertical Aerospace Ltd.

"WTO" means World Trade Organization.

"XAL" means NYSE ARCA Airline Index.

"Yield" means a measure of airline revenue derived by dividing passenger revenue by RPMs.

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.

Risks Related to our Business

The outbreak and global spread of COVID-19 has resulted in a severe decline in demand for air travel which has adversely impacted our business, operating results, financial condition and liquidity. The duration and severity of the COVID-19 pandemic, and similar public health threats that we may face in the future, could result in additional adverse effects on our business, operating results, financial condition and liquidity.

The COVID-19 outbreak, along with the measures governments and private organizations worldwide have implemented in an attempt to contain the spread of this pandemic, has resulted in a severe decline in demand for air travel, which has adversely affected our business, operations and financial condition to an unprecedented extent. Measures such as travel restrictions, including testing regimes, "stay at home" and quarantine orders, limitations on public gatherings, cancellation of public events and many others have resulted in a precipitous decline in demand for both domestic and international business and leisure travel. In response to this material deterioration in demand, we have taken a number of aggressive actions to ameliorate our business, operations and financial condition. We have focused on reducing our capacity, making structural changes to our fleet, reducing costs including implementing voluntary leave and early retirement programs, preserving cash and improving our overall liquidity position. We have reduced our system-wide capacity and will continue to monitor conditions and to proactively evaluate and adjust our schedule to match demand. Additionally, we have retired certain mainline aircraft earlier than planned, including all of our Airbus A330-200, Boeing 757, Boeing 767, Airbus A330-300 and Embraer 190 aircraft as well as certain regional aircraft, including all of our Embraer 140 and Bombardier CRJ200 aircraft, which we expect will allow us to be more efficient by reducing the number of sub-fleets we operate, and we have also placed a number of Boeing 737-800 aircraft into temporary storage. We have moved quickly to attempt to better align our costs with our reduced schedule and made other cost-saving initiatives (including reductions in maintenance expense, marketing expense, event and training expense, airport facilities expense, salaries and benefits expense, and other volume-related expense reductions, including fuel). Nonetheless, we incurred significant net losses, excluding net special items, in 2020 and 2021, and we expect to continue to do so until there is a significant and sustained global recovery in demand for air travel. The duration and severity of the COVID-19 pandemic remain uncertain, and there can be no assurance that any of the mitigating actions we have taken will suffice to sustain our business and operations through this pandemic.

We have taken and will take additional actions to improve our financial position, including measures to improve liquidity, such as obtaining financial assistance under the CARES Act, the PSP Extension Law and the ARP. In 2020, we received approximately \$6.0 billion in financial assistance from Treasury through PSP1 established under the CARES Act, and in 2021, we received approximately \$3.5 billion in financial assistance from Treasury through PSP2 established under the PSP Extension Law and \$3.3 billion in financial assistance from Treasury through PSP3 established under the ARP. In connection with the financial assistance we have received through PSP1, PSP2 and PSP3, we are required to comply with the relevant provisions of the CARES Act, the PSP Extension Law and the ARP, including the requirement that funds provided pursuant to PSP1, PSP2 and PSP3 be used exclusively for the continuation of payment of eligible employee wages, salaries and benefits; the

requirement that certain levels of commercial air service be maintained; provisions prohibiting the repurchase of AAG common stock and the payment of common stock dividends through September 30, 2022; and restrictions on the payment of certain executive compensation until April 1, 2023. Additionally, under PSP1, PSP2 and PSP3, we and certain of our subsidiaries are subject to substantial and continuing reporting obligations. The substance and duration of these restrictions may materially affect our operations, and we may not be successful in managing these impacts.

We may pursue additional financing through, among other things, the issuance of additional unsecured and secured debt securities, equity securities and equity-linked securities and/or the entry into additional bilateral and syndicated secured and/or unsecured credit facilities. There can be no assurance as to the timing of any such financing transactions, which may be in the near term, or that we will be able to obtain such additional financing on favorable terms, or at all. Any such actions may be material in nature, could result in the incurrence and issuance of significant additional indebtedness or equity and could impose significant covenants and restrictions to which we are not currently subject.

The measures we have taken to reduce our expenditures and to improve our liquidity, and any other strategic actions that we may take in the future in response to the COVID-19 pandemic may not be effective in offsetting decreased demand, and we may not be permitted to take certain strategic actions that we believe are beneficial if such strategic actions are in contravention of the requirements under the CARES Act, the PSP Extension Law or the ARP, which could result in a material adverse effect on our business, operating results and financial condition.

The full extent of the ongoing impact of the COVID-19 pandemic on our longer-term operational and financial performance will depend on future developments, many of which are outside our control, including the effectiveness of the mitigation strategies discussed above; the duration and spread of COVID-19, including recurrence of the pandemic or the emergence of novel variants, and related travel advisories, restrictions and testing regimes; the supply of effective vaccines and success of efforts to deploy the vaccines; the impact of the COVID-19 pandemic on overall long-term demand for air travel; the impact on demand and capacity which could result from government mandates on air service (including, for instance, requirements for passengers to wear face coverings while traveling or have their temperature checked or have administered COVID-19 tests and other checks prior to or after entering an airport or boarding an airplane, or which would limit the number of seats that can be occupied on an aircraft to allow for social distancing or prohibit flights to certain locations); the impact of COVID-19 on our employees' ability to work because they are quarantined or sickened as a result of exposure to COVID-19 or if they are subject to additional governmental COVID-19 curfews or "stay at home" health orders or similar restrictions; the impact of federal vaccine mandates, including the willingness of our employees to comply with such mandates and potential conflict with actions by certain states that are in conflict with the federal mandate; the impact of the COVID-19 pandemic on the financial health and operations of our business partners and future governmental actions, all of which are highly uncertain and cannot be predicted. In addition, we currently have a significantly smaller workforce than we did prior to the onset of the COVID-19 pandemic, while the demand for leisure travel, in particular domestically, accelerated during 2021. Despite recalling previously furloughed frontline team members and continuously hiring new employees, airlines have experienced, and may continue to experience, periodic staffing shortages which may result in flight cancellations and other operational disruptions. The emergence in late 2021 of the fast-spreading omicron variant of COVID-19 resulted in a significant rise in global cases which could result in higher than normal employee absences. Continued volatility in demand for travel, coupled with the unpredictability of the ongoing pandemic, presents challenges in building and flying our schedule, in particular during peak travel periods. At this time, we are also not able to predict whether the COVID-19 pandemic will result in permanent changes to our customers' behavior, with such changes including but not limited to a permanent reduction in business travel as a result of increased usage of "virtual" and "teleconferencing" products and more broadly a general reluctance to travel by consumers, each of which could have a material impact on our business.

The COVID-19 pandemic has also caused significant disruption in global supply chains and staffing shortages, which has affected the availability and timely delivery and fulfillment of many goods, including certain of those that we purchase directly or which are required by third parties to perform contracted services for us. We rely on the operation of complex supply chains and a large number of third parties for the procurement and fulfillment of parts, components, consumable or disposable goods and other products and services essential to our business. We cannot guarantee that, as a result of ongoing or future supply chain disruptions or staffing shortages, we or our third-party partners will be able to timely source all of the products and services we require in the course of our business, or that we will be successful in procuring suitable alternatives.

We are also dependent upon effective COVID-19 vaccines, including an efficient distribution and sufficient supply, and significant uptake by the general public in order to normalize economic conditions and the airline industry and to realize our financial and growth plans and business strategy. The failure of a vaccine, including to the extent it is not effective against any COVID-19 variants, significant unplanned adverse reactions to the vaccine, politicization of the vaccine or general public distrust of the vaccine could prolong the pandemic and have an adverse effect on our business, financial condition and results of operations. Additionally, in September 2021, the Biden Administration issued an executive order mandating a COVID-19 vaccination requirement for federal contractors. Due to a number of our agreements, American is classified as a government contractor. Consistent with this executive order and guidance from the Safer Federal Workforce Task Force responsible for implementing the order, we announced that the federal vaccine mandate would require all of American's U.S.-based team members and certain international crew members to be vaccinated or be exempt due to an accommodation for a medical disability or sincerely held religious belief. Lawsuits have been filed in multiple jurisdictions challenging the order, and the U.S. District Court for the Southern District of Georgia in one of these cases issued a nationwide stay of enforcement of the executive order. The cases are currently before several U.S. Courts of Appeal and may ultimately be decided by the U.S. Supreme Court. Given the uncertainty of its viability in the courts, the timing of implementation and availability of accommodations, we cannot predict the impact of this federal vaccination requirement on our business. Moreover, we may be subject to state and local vaccine mandates and other COVID-19-related requirements governing airports where we operate. While the Occupational Health and Safety Administration (OSHA) has withdrawn its overarching COVID-19 Emergency Temporary Standard, the U.S. Supreme Court has acknowledged that OSHA may potentially issue a revised COVID-19 standard targeted to high-risk occupations or workplaces, which could impact our regional carriers and other service providers.

The COVID-19 pandemic continues to evolve, and its ultimate impact remains highly uncertain and subject to change. Even once the pandemic subsides, demand for air travel may remain weak for a prolonged period due to, among other things, adverse changes in business travel patterns or perceived or actual economic factors such as declines in income levels and/or loss of wealth resulting from the impact of the COVID-19 pandemic. In addition, an outbreak of another disease or similar public health threat, or fear of such an event, that affects travel demand, travel behavior or travel restrictions could adversely impact our business, financial condition and operating results. Outbreaks of other diseases could also result in increased government restrictions and regulation, such as those actions described above or otherwise, which could adversely affect our operations.

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. In particular, the ongoing COVID-19

pandemic and associated decline in economic activity and increase in unemployment levels have had and are expected to continue to have a severe and prolonged effect on the global economy generally and, in turn, is expected to depress demand for air travel into the foreseeable future. Due to the uncertainty surrounding the duration and severity of this pandemic, we can provide no assurance as to when and at what pace demand for air travel will return to pre-COVID-19 pandemic levels, if at all. Accordingly, we cannot predict the ultimate impact of the COVID-19 pandemic on our business, financial condition and results of operations. Additionally, the COVID-19 pandemic has necessitated changes in business practices which may persist. For example, businesses and other travelers may continue to forego air travel in favor of remote or flexible working policies and communication alternatives such as videoconferencing. In addition, to the extent businesses continue to permit air travel during the COVID-19 pandemic, they are more likely to require the purchase of less expensive tickets to reduce costs, thereby potentially impacting our average revenue per available seat mile. See also "The outbreak and global spread of COVID-19 has resulted in a severe decline in demand for air travel which has adversely impacted our business, operating results, financial condition and liquidity. The duration and severity of the COVID-19 pandemic, and similar public health threats that we may face in the future, could result in additional adverse effects on our business, operating results, financial condition and liquidity" and "The airline industry is intensely competitive and dynamic."

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

Our business plan contemplates continued significant investments related to 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, 2021, our planned aggregate expenditures for aircraft purchase commitments and certain engines on a consolidated basis for calendar years 2022-2026 would be approximately \$12.4 billion. We may also require financing to refinance maturing obligations and to provide liquidity to fund other corporate requirements. Accordingly, we will need substantial liquidity, financing or other capital resources to finance such aircraft and engines and meet such other liquidity needs. If needed, it may be difficult for us to raise additional capital on acceptable terms, or at all, due to, among other factors: our substantial level of existing indebtedness, particularly following the additional liquidity transactions completed and contemplated in response to the impact of the COVID-19 pandemic; our non-investment grade credit rating; unfavorable market conditions; the availability of assets to use as collateral for loans or other indebtedness, which has been reduced significantly as a result of certain financing transactions we have undertaken since the beginning of 2020 and may be further reduced; and the effect the COVID-19 pandemic has had on the global economy generally and the air transportation industry in particular. If we are unable to arrange any such required financing 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 fund such other corporate requirements or may seek to negotiate deferrals for such aircraft and engines with the applicable manufacturers or otherwise defer corporate obligations. 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 or to fund our committed expenditures. An inability to obtain necessary financing on acceptable terms would have a material adverse impact on our business, results of operations and financial condition.

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 very significant 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;
- limit our ability to obtain additional funding for working capital, capital expenditures, acquisitions, investments 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 liquidity or 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;
- 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;
- 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
 and collateral coverage ratios and peak debt service coverage ratios; and
- 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; and
 - · if breached, result in an event of default under our indebtedness.

In addition, in response to the travel restrictions, decreased demand and other effects the COVID-19 pandemic has had and is expected to continue to have on our business, we have obtained and currently anticipate that it may be necessary to continue to obtain a significant amount of additional financing from a variety of sources. Such financing may include the issuance of additional unsecured or secured debt securities, equity securities and equity-linked securities as well as additional bilateral and syndicated secured and/or unsecured credit facilities, among other items. There can be no assurance as to the timing of any such financing transactions, which may be in the near term, or that we will be able to obtain such additional financing on favorable terms, or at all. Any such actions may be material in nature, could result in the incurrence and issuance of significant additional indebtedness or equity and could impose significant covenants and restrictions to which we are not currently subject. In particular, in connection with the financial assistance we have received through PSP1, PSP2 and PSP3, we are required to comply with the relevant provisions of the CARES Act, the PSP Extension Law and the ARP, including the requirement that funds provided pursuant to PSP1, PSP2 and PSP3

be used exclusively for the continuation of payment of eligible employee wages, salaries and benefits; provisions prohibiting the repurchase of AAG common stock and the payment of common stock dividends through September 30, 2022; and restrictions on the payment of certain executive compensation until April 1, 2023. Additionally, under PSP1, PSP2 and PSP3, we and certain of our subsidiaries are subject to substantial and continuing reporting obligations. Moreover, as a result of the recent financing activities we have undertaken in response to the COVID-19 pandemic, the number of financings with respect to which such covenants and provisions apply has increased, thereby subjecting us to more substantial risk of cross-default and cross-acceleration in the event of breach, and additional covenants and provisions could become binding on us as we continue to seek additional liquidity.

The obligations discussed above, including those imposed as a result of the CARES Act, the PSP Extension Law, the ARP and any additional financings we may be required to undertake as a result of the impact of the COVID-19 pandemic, could 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.

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 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 U.K. 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. The discontinuation date for submission and publication of rates for certain tenors of USD LIBOR (1-month, 3-month, 6-month, and 12-month) was subsequently extended by the ICE Benchmark Administration (the administrator of LIBOR) until June 30, 2023. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2023. Similarly, it is not possible to predict whether LIBOR will continue to be viewed as an acceptable market benchmark, what rate or rates may become acceptable alternatives to LIBOR, or what effect these changes in views or alternatives may have on financial markets for LIBOR-linked financial instruments. While the U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, has chosen the secured overnight financing rate (SOFR) as the recommended risk-free reference rate for the U.S. (calculated based on repurchase agreements backed by treasury securities), we cannot currently predict the extent to which this index will gain widespread acceptance as a replacement for LIBOR. 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."

We may in the future pursue amendments to our LIBOR-based debt transactions to provide for a transaction mechanism or other reference rate in anticipation of LIBOR's discontinuation, but we may not be able to reach agreement with our lenders on any such amendments. As of December 31, 2021, we had \$10.9 billion of borrowings based on LIBOR. The replacement of LIBOR with a comparable or successor rate could cause the amount of interest payable on our long-term debt to be different or higher than expected.

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 our pension funding obligations will depend on the performance of investments held in trust by the pension plans, interest rates for determining liabilities and actuarial experience. In January 2021, we made \$241 million in contributions to our pension plans, including a contribution of \$130 million for the 2020 calendar year that was permitted to be deferred to January 4, 2021 as provided under the CARES Act. On March 11, 2021, the ARP was enacted, which included funding relief provisions benefiting single employer qualified retirement benefit pension plans such as those sponsored by American. Based on the ARP provisions applicable to our pension plans, we will have no additional funding requirements until 2023. We also have significant obligations for retiree medical and other postretirement benefits.

Additionally, we participate in the IAM National Pension Fund (the IAM Pension Fund). The funding status of the IAM Pension Fund is subject to the risk that other employers may not meet their obligations, which under certain circumstances could cause our obligations to increase. On March 29, 2019, the actuary for the IAM Pension Fund certified that the fund was in "endangered" status despite reporting a funded status of over 80%. Additionally, the IAM Pension Fund's Board voluntarily elected to enter into "critical" status on April 17, 2019. Upon entry into critical status, the IAM Pension Fund was required by law to adopt a rehabilitation plan aimed at restoring the financial health of the pension plan and did so on April 17, 2019 (the Rehabilitation Plan). Under the Rehabilitation Plan, American was subject to an immaterial contribution surcharge, which ceased to apply June 14, 2019 upon American's mandatory adoption of a contribution schedule under the Rehabilitation Plan. The contribution schedule requires 2.5% annual increases to its contribution rate. This contribution schedule will remain in effect through the earlier of December 31, 2031 or the date the IAM Pension Fund emerges from critical status. Furthermore, if we were to withdraw from the IAM Pension Fund, if the IAM Pension fund were to terminate, or if the IAM Pension Fund were to undergo a mass withdrawal, we could be subject to liability as imposed by law.

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, our failure to maintain certain levels of liquidity), to hold an amount of our cash (referred to as 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. Additionally, such credit card processing companies may require cash or other collateral reserves to be established. 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 or the triggering of a liquidity covenant. In light of the effect the COVID-19 pandemic is having on demand for air travel and, in turn, capacity, we have seen an increase in demand from consumers for refunds on their tickets, and we anticipate this will continue to be the case for the near future. Requests for refunds and the ongoing impact of the COVID-19 pandemic on our longer-term financial performance may reduce our liquidity and cause us to be forced to post cash or other collateral with the credit card processing companies in respect of advance ticket sales. The imposition of holdback requirements, 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. For example, we maintain certain letters of credit, insurance- and surety-related agreements under which counterparties may require collateral, including cash collateral.

The loss of key personnel upon whom we depend to operate our business or the inability to attract and develop additional qualified personnel could adversely affect our business.

We believe that our future success will depend in large part on our ability to attract, develop and retain highly qualified management, technical and other personnel. Retaining and recruiting people with the appropriate skills is particularly challenging as the economy in general, and the airline industry in particular, continue to recover from the COVID-19 pandemic resulting in competition for the human resources necessary to operate our business successfully. We may not be successful in attracting, developing or retaining key personnel or other highly qualified personnel. Among other things, the CARES Act, the PSP Extension Law and the ARP impose significant restrictions on executive compensation, which will remain in place until April 1, 2023. Such restrictions, over time, will likely result in lower executive compensation in the airline industry than is prevailing in other industries, creating increasing retention challenges in the case of executives presented with alternative, non-airline opportunities. In addition, we currently have a significantly smaller workforce than we did prior to the onset of the COVID-19 pandemic, while the demand for leisure travel, in particular domestically, accelerated during 2021. Competition for skilled personnel has intensified and may continue to intensify if overall industry capacity continues to increase and/or we were to incur attrition at levels higher than we have historically. Any inability to attract, develop and retain significant numbers of qualified management and other personnel would have a material adverse effect on our business, results of operations and financial condition.

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:

- · the effects of the ongoing COVID-19 pandemic;
- actual or potential changes in international, national, regional and local economic, business and financial conditions, including recession, inflation and higher interest rates;
- · the occurrence of 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 U.S. National Airspace System (the ATC system);
- · increases in costs of safety, security, and environmental measures;
- outbreaks of diseases that affect travel behavior; and
- weather and natural disasters, including increases in frequency, severity or duration of such disasters, and related costs caused by more severe weather due to climate change.

In addition to the effects of the ongoing COVID-19 pandemic, an outbreak of another contagious disease—such as has occurred in the past with 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. See also "The outbreak and global spread of COVID-19 has resulted in a severe decline in demand for air travel which has adversely impacted our business, operating results, financial condition and liquidity. The duration and severity of the COVID-19 pandemic, and similar public health threats that we may face in the future, could result in additional

adverse effects on our business, operating results, financial condition and liquidity." 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.

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. As of December 31, 2021, approximately 86% of our employees were represented for collective bargaining purposes by labor unions, and 45% were covered by CBAs that are currently amendable or that will become amendable within one year. For the dates that the CBAs with our major work groups become amendable under the RLA, see Part I, Item 1. Business – "Our People—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 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, 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 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 arbitral avenues could result in material additional costs that we did not anticipate. See also Part I, Item 1. Business – "Our People—Labor Relations."

Currently, we believe our labor costs are generally 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 several important new labor agreements now and other agreements are scheduled to 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.

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 has in the past and may in the future 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 in particular pilots and mechanics, and other risk factors, such as an out-of-court or bankruptcy restructuring of any of our regional operators. Several 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 pilots, mechanics and other 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. In particular, the severe decline in demand for air travel resulting from the COVID-19 pandemic and related governmental restrictions on travel have materially impacted demand for services provided by our regional carriers and, as a result, we temporarily significantly reduced our regional capacity. We expect the disruption to services resulting from the COVID-19 pandemic to continue to adversely affect our regional operators, some of whom may experience significant financial stress, declare bankruptcy or otherwise cease to operate. We may also experience disruption to our regional operations or incur financial damages if we terminate the capacity purchase agreement with one or more of our current operators or 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. These third parties are also facing challenges retaining and recruiting people with the appropriate skills to meet our requirements as the economy in general, and the airline industry in particular, continue to recover from the COVID-19 pandemic. Any material problems with the adequacy, efficiency and timeliness of contract services, resulting from financial hardships, personnel shortages or otherwise, could have a material adverse effect on our business, results of operations and financial condition.

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, among other things, 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. In addition, we operate in a highly visible industry that has significant exposure to social media. Negative publicity, including as a result of misconduct by our customers, vendors or employees, can spread rapidly through social media. Should we not respond in a timely and appropriate manner to address negative publicity, our brand and reputation may be significantly harmed. 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.

Moreover, the outbreak and spread of COVID-19 have adversely impacted consumer perceptions of the health and safety of travel, and in particular airline travel, and these negative perceptions could continue even after the pandemic subsides. Actual or perceived risk of infection on our flights has had, and may continue to have, a material adverse effect on the public's perception of us, which has harmed, and may continue to harm, our reputation and business. We have taken various measures to reassure our team members and the traveling public of the safety of air travel, including requirements that passengers wear face coverings, the provision of protective equipment for team members and enhanced cleaning procedures onboard aircraft and in airports. We expect that we will continue to incur COVID-19 related costs as we sanitize aircraft, implement additional hygiene-related protocols and take other actions to limit the threat of infection among our employees and passengers. However, we cannot assure that these or any other actions we might take in response to the COVID-19 pandemic will be sufficient to restore the confidence of consumers in the safety of air travel. In addition. as a result of mask mandates and other mitigating measures that airports and carriers have been required by law to implement to limit the spread of COVID-19, we have experienced an increase in the incidence of aggressive customer behavior and physical confrontation on our flights, certain of which have resulted in injuries to our personnel. If our employees feel unsafe or believe that we are not doing enough to prevent and prosecute these incidents, we could experience higher rates of employee absence and we may suffer reputational harm which could make it more difficult to attract and retain employees, and which could in turn negatively affect our business, financial condition and results of operations.

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.

We are at risk of adverse publicity stemming from any public incident involving our company, our people or our brand, particularly given the ease with which individuals can now capture and rapidly disseminate news via social media. Such an incident could involve the actual or alleged behavior of any of our employees, contractors or passengers. Further, if our personnel, one of our aircraft, a type of aircraft in our fleet, 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, catastrophe or regulatory enforcement action, 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, catastrophe or action. In the event that our insurance is inapplicable or inadequate, we may be forced to bear substantial losses from an incident or accident. In addition, any such incident, accident, catastrophe or action involving our personnel, one of our aircraft (or personnel and aircraft of our regional operators and our codeshare partners), or a type of aircraft in our fleet 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.

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 in the past 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, changing (whether it be increasing, decreasing or eliminating) 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 and entering into agreements with other airlines. For example, in 2020, we eliminated change fees for most domestic and international tickets, which has reduced our change fee revenue, a trend which is expected to continue as demand for air travel recovers, assuming this change remains in place. 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 that these measures or any future initiatives will be successful in increasing our revenues or offsetting our costs. 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 result in adverse brand perceptions or reputational harm, and could 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.

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.

In addition, we have used certain of our branding and AAdvantage loyalty program intellectual property as collateral for various financings (including the AAdvantage Financing), which contain covenants that impose restrictions on the use of such intellectual property and, in the case of the AAdvantage Financing, on certain amendments or changes to our AAdvantage loyalty program. These covenants may have an adverse effect on our ability to use such intellectual property.

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 Note 11(e) to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 10(e) to American's Consolidated Financial Statements in Part II. Item 8B.

Our ability to utilize our NOLs and other carryforwards may be limited.

Under the Internal Revenue Code of 1986, as amended (the Code), a corporation is generally allowed a deduction for net operating losses (NOLs) carried over from prior taxable years. As of December 31, 2021, we had approximately \$17.2 billion of gross federal NOLs and \$3.0 billion of other carryforwards available to reduce future federal taxable income, of which \$6.9 billion will expire beginning in 2024 if unused and \$13.3 billion can be carried forward indefinitely. We also had approximately \$6.0 billion of NOL carryforwards to reduce future state taxable income at December 31, 2021, which will expire in taxable years 2021 through 2041 if unused. Our NOL carryforwards are subject to adjustment on audit by the Internal Revenue Service and the respective state taxing authorities. Additionally, due to the COVID-19 pandemic and other economic factors, the NOL carryforwards may expire before we can generate sufficient taxable income to use them.

Our ability to use our NOLs and other carryforwards will depend on the amount of taxable income generated in future periods. We presently have a \$34 million valuation allowance on certain net deferred tax assets related to state NOL carryforwards. If our financial results continue to be adversely impacted by the COVID-19 pandemic, there can be no assurance that an additional valuation allowance on our net deferred tax assets will not be required. Such valuation allowance could be material. 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% during a rolling three-year period). In 2013, we experienced an ownership change in connection with our emergence from bankruptcy 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 \$5.4 billion of unlimited NOLs still remaining at December 31, 2021) 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. In addition, under the loan program of the CARES Act, the warrants (and common stock issuable upon exercise thereof) we issued to Treasury did not and will not result in an "ownership change" for purposes of Section 382. This exception does not apply for companies issuing warrants, stock options, common or preferred stock or other equity pursuant to PSP1, PSP2 and PSP3 and accordingly will not apply to the warrants issued by us under PSP1, PSP2 and PSP3. 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 bankruptcy may severely limit or effectively eliminate our ability to utilize our NOL carryforwards and other tax attributes. In connection with the expiration in December 2021 of certain transfer restrictions applicable to substantial shareholders contained in our Certificate of Incorporation, the Board of Directors of AAG adopted a tax benefits preservation plan (the Tax Benefits Preservation Plan) in order to preserve our ability to use our NOLs and certain other tax attributes to reduce potential future income tax

obligations. The Tax Benefits Preservation Plan is designed to reduce the likelihood that we experience an ownership change by deterring certain acquisitions of AAG common stock. There is no assurance, however, that the deterrent mechanism will be effective, and such acquisitions may still occur. In addition, the Tax Benefits Preservation Plan may adversely affect the marketability of AAG common stock by discouraging existing or potential investors from acquiring AAG common stock or additional shares of AAG common stock, because any non-exempt third party that acquires 4.9% or more of the then-outstanding shares of AAG common stock would suffer substantial dilution of its ownership interest in AAG. We intend to submit the Tax Benefits Preservation Plan for ratification to AAG stockholders at the 2022 Annual Meeting of Stockholders of American Airlines Group Inc.

New U.S. tax legislation may adversely affect our financial condition, results of operations and cash flows.

The U.S. government may enact significant changes to the taxation of business entities including, among others, an increase in the corporate income tax rate, the imposition of minimum taxes or surtaxes on certain types of income, significant changes to the taxation of income derived from international operations, and an addition of further limitations on the deductibility of business interest. While certain draft legislation has been publicly released and is under development in Congress at this time, the likelihood of these changes being enacted or implemented is unclear. We are currently unable to predict whether such changes will occur. If such changes are enacted or implemented, we are currently unable to predict the ultimate impact on our business and therefore there can be no assurance our business will not be adversely affected.

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, including as a result of significant or prolonged declines in demand for air travel and corresponding reductions to capacity. We can provide no assurance that a material impairment loss of tangible or intangible assets will not occur in a future period; we have previously incurred significant impairment charges associated with our decision to retire certain aircraft as a result of the severe decline in demand for air travel due to the COVID-19 pandemic, and the risk of future material impairments remains significantly heightened as a result of the effects of the COVID-19 pandemic on our flight schedules and business. Such impairment charges could have a material adverse effect on our business, results of operations and financial condition.

Risks Related to the Airline Industry

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 or alternatives to commuting or business travel including remote or flexible working policies and communication alternatives such as videoconferencing. 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, fees (including cancellation, change and baggage fees), 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 (such as the current one caused by the COVID-19 pandemic), as airlines under financial stress, or in bankruptcy, may institute pricing or fee structures intended to attract more customers to achieve near term survival at the expense of 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, are price sensitive and therefore tend not to be loyal to any one particular carrier. A number of these low-cost carriers have recently commenced operations, and several new entrants have announced their intention to start up new ultra-low-cost carriers. Many of these new and existing 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. While historically these carriers have provided competition in domestic markets, we have recently experienced new competition from low-cost carriers on international routes, including low-cost airlines executing international long-haul expansion strategies, a trend likely to continue with the delivery of planned, long-range narrowbody aircraft. 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 businesses, alliances, 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 exposure to others (for example, China). 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, including the duration of declines in demand for travel to specific regions as a result of the continuing outbreak of COVID-19 and the speed with which demand for travel to these regions returns.

Our international service exposes us to foreign economies and the potential for reduced demand when any foreign country we serve suffers adverse local economic conditions or if governments restrict commercial air service to or from any of these markets. For example, the COVID-19 pandemic has resulted in a precipitous decline in demand for air travel, in particular international travel, in part as a result of the imposition by the U.S. and foreign governments of restrictions on travel from certain regions. In addition, open skies agreements, which are now in place with a substantial 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 joint business with British Airways, Aer Lingus, Iberia and Finnair, a transpacific joint business with Japan Airlines and a joint business relating to Australia and New Zealand with Qantas, each of which has been granted antitrust immunity. The transatlantic joint business 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 were binding for 10 years. In October 2018, in anticipation of the exit of the United Kingdom from the EU, commonly referred to as Brexit, and the expiry of the EC commitments in July 2020, the CMA opened an investigation into the transatlantic joint business. We continue to fully cooperate with the CMA and, in September 2020, the CMA adopted interim measures that effectively extend the EC commitments for an additional three years until March 2024 in light of the uncertainty created by the COVID-19 pandemic. The CMA plans to complete its investigation before the interim measures expire. 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 arrangements.

In 2021, we began implementing key aspects of our marketing relationship with JetBlue. This arrangement includes an alliance agreement with reciprocal codesharing on certain domestic and international routes from New York (JFK, LGA, and EWR) and BOS, and provides for reciprocal loyalty program benefits. The arrangement does not include JetBlue's transatlantic flying. Pursuant to federal law, American and JetBlue submitted this proposed alliance arrangement to the DOT for review. After American, JetBlue and the DOT agreed to a series of commitments, the DOT terminated its review of the proposed alliance in January 2021. The commitments include growth commitments to ensure capacity expansion, slot divestitures at JFK and at DCA near Washington, D.C. and antitrust compliance measures. Beyond the DOT Agreement, American and JetBlue will also refrain from certain kinds of coordination on certain city pair markets. Upon the DOT's termination of its review of the proposed alliance, American and JetBlue implemented the proposed alliance subject to these commitments. On September 21, 2021, the DOJ, joined by Attorneys General from six states and the District of Columbia, filed an antitrust complaint against American and JetBlue alleging that American and JetBlue violated U.S. antitrust laws in connection with the NEA. We believe the complaint is without merit and intend to defend against it vigorously.

Notwithstanding the DOT's termination of its reviews of the NEA and certain other alliances, the DOT maintains authority to conduct investigations under the scope of its existing statutes and regulations, including conduct related to this alliance. On September 21, 2021, the DOT published a Clarification Notice relating to the DOT Agreement. The DOT Clarification Notice stated, among other things, that the DOT Agreement remains in force during the pendency of the DOJ action against the NEA and, while the DOT retains independent statutory authority to prohibit unfair methods of competition in air transportation, the DOT intends to defer to DOJ to resolve the antitrust concerns that DOJ has identified with respect to the NEA. The DOT simultaneously published a Notice Staying Proceeding in relation to a complaint by Spirit Airlines, Inc. regarding the NEA, pending resolution of the DOJ action described above.

No assurances can be given as to any benefits that we may derive from any of the foregoing arrangements or any other arrangements that may ultimately be implemented, or whether regulators will, or if granted 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 decrease our overall market share and revenues. 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. In addition, we have used certain assets from our AAdvantage loyalty program as collateral for the AAdvantage Financing, which contains covenants that impose restrictions on certain amendments or changes to certain of our AAdvantage Agreements and other aspects of the AAdvantage loyalty program. These competitive factors and covenants (to the extent applicable) may affect our ability to attract and retain customers, increase usage of our loyalty program and maximize the revenue generated by our loyalty program.

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

An important part of our strategy to expand our network has been to initiate or expand our commercial relationships with other airlines, such as by entering into global alliance, joint business and codeshare relationships, and, in certain instances, including China Southern Airlines and our previously announced proposed investments in GOL and JetSMART, by making a significant equity investment in another airline in connection with initiating or expanding such a commercial relationship. We may explore additional investments in, and joint ventures and strategic alliances with, other carriers as part of our global business strategy. We face competition in forming and maintaining these commercial relationships since there are a limited number of potential arrangements and other airlines are looking to enter into similar relationships, and our inability to form or maintain these relationships or inability to form as many of these relationships as our competitors may have an adverse effect on our business. 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, and they may distract management focus from our operations or other strategic options. We may also be subject to consequences from any illegal conduct of joint business partners as well as to any political or regulatory change that negatively impacts or prohibits our arrangements with any such business partners. In addition, as a result of the global spread of COVID-19, the industry has experienced a precipitous decline in demand for air travel both internationally and domestically, which is expected to continue into the foreseeable future and could materially disrupt our partners' abilities to provide air service, the timely execution of our strategic operating plans, including the finalization, approval and implementation of new strategic relationships or the maintenance or expansion of existing relationships. If any carriers with which we partner or in which we hold an equity stake were to cease trading or be declared insolvent, we could lose the value of any such investment or experience significant operational disruption. These events could have a material adverse effect on our business, results of operations and financial condition.

We may also from time to time pursue commercial relationships with companies outside the airline industry, which relationships may include equity investments or other financial commitments. Any such relationship or related investment, could involve unique risks, particularly where these relationships involve new industry participants, emerging technologies or industries with which we are unfamiliar.

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 consumer demand, 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 and thus is a significant factor in the price of airline tickets. Market prices for aircraft fuel have fluctuated substantially over the past several years and prices continue to be highly volatile, with market spot prices ranging from a low of approximately \$0.37 per gallon to a high of approximately \$2.35 per gallon during the period from January 1, 2019 to December 31, 2021. In particular, fuel prices rose substantially in 2021, and price increases have continued in early 2022.

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.

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 and any related staffing or transportation equipment shortages, 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 or increased demands on 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, 2021, 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. See also the discussion in Part II, Item 7A. Quantitative and Qualitative Disclosures About Market Risk – "Aircraft Fuel."

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 and state and local governments have passed laws and regulatory initiatives,

and the DOT, the FAA, the TSA and several of their respective international counterparts have issued regulations and a number of other directives, 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 and prolonged grounding of aircraft types altogether (including, for example, the March 2019 grounding of all Boeing 737 MAX Family aircraft, which remained in place for over a year and was not lifted in the United States until November 2020), 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, and rules promulgated by certain analogous agencies in other countries we serve, 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. In 2022, the DOT is expected to propose or implement a number of new regulations that will impact us, including disability rules for accessible lavatories and wheelchair assistance, refund requirements, display of ancillary fees during initial flights search, and refunds for checked bag fees in the event of certain delays in delivery.

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.

Similarly, there are a number of legislative and regulatory initiatives and reforms at the state and local levels. These initiatives include increasingly stringent laws to protect the environment, wage/hour requirements, mandatory paid sick or family leave, and healthcare mandates. These laws could affect our relationship with our workforce and the vendors that serve our airlines and cause our expenses to increase without an ability to pass through these costs. In recent years, the airline industry has experienced an increase in litigation over the application of state and local employment laws, particularly in California. Application of these laws may result in operational disruption, increased litigation risk and impact our negotiated labor agreements. Additionally, in September 2021, the Biden Administration issued an executive order mandating a COVID-19 vaccination requirement for federal contractors. Due to a number of our agreements, American is classified as a government contractor. Consistent with this executive order and guidance from the Safer Federal Workforce Task Force responsible for implementing the order, we announced in that the federal vaccine mandate would require all of American's U.S.-based team members and certain international crew members to be vaccinated or be exempt due to an accommodation for a medical disability or sincerely held religious belief. Lawsuits have been filed in multiple jurisdictions challenging the order, and the U.S. District Court for the Southern District of Georgia in one of these cases issued a nationwide stay of enforcement of the executive order. The cases are currently before several U.S. Courts of Appeal and may ultimately be decided by the U.S. Supreme Court. Given the uncertainty of its viability in the courts, the timing of implementation and availability of accommodations, we cannot predict the impact of this federal vaccination requirement on our business. Moreover, we may be subject to state and local vaccine mandates and other COVID-19-related requirements governing airports where we operate. While OSHA has withdrawn its overarching COVID-19 Emergency Temporary Standard, the U.S. Supreme Court has acknowledged that OSHA may potentially issue a revised COVID-19 standard targeted to high-risk occupations or workplaces, which could impact our regional carriers and other service providers.

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, and the imposition of regulatory investigations or commencement of litigation related to any of the foregoing (including our arrangements with JetBlue);
- 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;
- · the adoption of more restrictive locally-imposed noise restrictions; and
- restrictions on travel or special guidelines regarding aircraft occupancy or hygiene related to COVID-19, including the imposition of preflight testing regimes or vaccination confirmation requirements which to date have, and may in the future have, the effect of reducing demand for air travel in the markets where such requirements are imposed.

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 the increased costs or greater complexity associated with 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 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, including ourselves, 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, including ourselves. Failure to update the ATC system and the substantial costs that may be imposed on airlines, including ourselves, 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 and the COVID-19 pandemic. These events have resulted in, among other things, reduced demand for air travel, an actual or perceived reduction in air traffic control 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 those that 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 130 trading partners, which agreements 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. 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, joint business agreements, and other alliance arrangements by and among other airlines could impair the value of our business and assets on the open skies routes.

On May 1, 2021 the EU and United Kingdom entered into a new trade and cooperation agreement (The EU-UK Trade and Cooperation Agreement) to govern certain aspects of their relationship following Brexit. We face risks associated with Brexit, 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. The EU-UK Trade and Cooperation Agreement includes provisions in relation to commercial air service that we expect to be sufficient to sustain our current services under the transatlantic joint business. However, the scope of traffic rights under the EU-UK Trade and Cooperation Agreement is less extensive than before Brexit and therefore the full impact of the EU-UK Trade and Cooperation Agreement is uncertain. As a result, the continuation of our current services, and those of our partners could be disrupted. This 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.

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. In particular, the outbreak and global spread of COVID-19 have severely impacted the demand for international travel and have resulted in the imposition of significant governmental restrictions on commercial air service to or from certain regions. We responded by temporarily suspending a significant portion of our long-haul international flights and delaying the introduction of certain new long-haul international routes. We can provide no assurance as to when such restrictions will be eased or lifted, when demand for international travel will return to pre-COVID-19 pandemic levels, if at all, or whether certain international destinations we previously served will be economical in the future.

More generally, our industry may be affected by any deterioration in global trade relations, including shifts in the trade policies of individual nations. For example, 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 or other trade barriers, travel limitations and other regulatory actions, have the effect of reducing global commercial activity, the result could be a material decrease in the demand for international air travel. Additionally, certain of the products and services that we purchase, including certain of our aircraft and related parts, are sourced from suppliers located outside the U.S., and the imposition of new tariffs, or any increase in existing tariffs, by the U.S. government in respect of the importation of such products could materially increase the amounts we pay for them. In particular, in October 2019, the Office of the U.S. Trade Representative (USTR), as part of an ongoing dispute with the EU before the World Trade Organization (WTO) concerning, among other things, aircraft subsidies, was authorized by an arbitration tribunal of the WTO to impose up to \$7.5 billion per year in import tariffs on certain goods originating from the EU. The USTR subsequently imposed tariffs of up to 15% on certain imports from the EU, including on certain Airbus aircraft that we previously contracted to purchase and certain imported aircraft parts. In June 2021, the United States, the EU and the UK announced agreements to suspend the imposition of these tariffs, contingent upon each party remaining satisfied that subsidies do not arise. However, if and to the extent any of these tariffs are reimposed on us without any available means for us to mitigate or pass on the burden of these tariffs to Airbus, the effective cost of new Airbus aircraft required to implement our fleet plan would increase.

We face risks associated with Brexit, 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. The EU-UK Trade and Cooperation Agreement includes provisions in relation to commercial air service that we expect to be sufficient to sustain our current services under the transatlantic joint business. However, the scope of traffic rights under the EU-UK Trade and Cooperation Agreement is less extensive than before Brexit and therefore the full impact of the EU-UK Trade and Cooperation Agreement is uncertain. As a result, the continuation of our current services, and those of our partners could be disrupted. Moreover, Brexit 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. This could materially adversely affect our business, results of operations and financial condition.

Brexit has also led 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 October 2018, in anticipation of Brexit and the expiry of the EC commitments in July 2020, the CMA opened an investigation into the transatlantic joint business. We continue to fully cooperate with the CMA and, in September 2020, the CMA adopted interim measures that effectively extend the EC commitments for an additional three years until March 2024 in light of the uncertainty created by the COVID-19 pandemic. The CMA plans to complete its investigation before the interim measures expire. 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.

Additionally, 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.

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 are subject to risks associated with climate change, including increased regulation of our CO₂ emissions, changing consumer preferences and the potential increased impacts of severe weather events on our operations and infrastructure.

Efforts to transition to a low-carbon future have increased the focus by global, regional and national regulators on climate change and GHG emissions, including CO_2 emissions. In particular, ICAO has adopted rules, including those pertaining to the CORSIA, which will require American to address the growth in CO_2 emissions of a significant majority of our international flights. For more information on CORSIA, see "Aircraft Emissions and Climate Change Requirements" under Item 1. Business – Domestic and Global Regulatory Landscape – Environmental Matters.

At this time, the costs of complying with our future obligations under CORSIA are uncertain, primarily because it is difficult to estimate the return of demand for international air travel during and in the recovery from the COVID-19 pandemic. There is also significant uncertainty with respect to the future supply and price of carbon offset credits and sustainable or lower carbon aircraft fuels that could allow us to reduce our emissions of CO₂. In addition, we will not directly control our CORSIA compliance costs through 2029 because those obligations are based on the growth in emissions of the global aviation sector and begin to incorporate a factor for individual airline operator emissions growth beginning in 2030. 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 surcharges or otherwise increase revenues or decrease other operating costs sufficiently to offset our costs of meeting obligations under CORSIA.

In the event that CORSIA does not come into force as expected, American and other airlines could become subject to an unpredictable and inconsistent array of national or regional emissions restrictions, creating a patchwork of complex regulatory requirements that could affect global competitors differently without offering meaningful aviation environmental improvements. Concerns over climate change are likely to result in continued attempts by municipal, state, regional, and federal agencies to adopt requirements or change business environments related to aviation that, if successful, may result in increased costs to the airline industry and us. In addition, several countries and U.S. states have adopted or are considering adopting programs, including new taxes, to regulate domestic GHG emissions. Finally, certain airports have adopted, and others could in the future adopt, GHG emission or climate-related goals that could impact our operations or require us to make changes or investments in our infrastructure.

In January 2021, the EPA adopted GHG emission standards for new aircraft engines, which are aligned with the 2017 ICAO aircraft engine GHG emission standards. Like the ICAO standards, the final EPA standards for new aircraft engines would not apply retroactively to engines already on in-service aircraft. These final standards have been challenged by several states and environmental groups, and the Biden Administration has issued an executive order requiring a review of these final standards. On November 15, 2021, the EPA announced that it will not rewrite the existing aircraft engine GHG emissions standards but will press for ambitious new aircraft GHG emission standards at international negotiations organized by the ICAO in 2022. The outcome of the legal challenge and the development of new aircraft GHG emissions standards cannot be predicted at this time. In addition, on September 9, 2021, the Biden Administration launched the Sustainable Aviation Fuel Grand Challenge to scale up the production of sustainable aviation fuel, aiming to reduce GHG emissions from aviation by 20% by 2030 and to replace all traditional aviation fuel with sustainable aviation fuel by 2050. Whether these goals will be achieved and the potential effects on our business cannot be predicted at this time.

In 2021, the EC proposed legislation that would expand the application of and increase the stringency of the EU ETS to include flights into and out of the Europe Economic Area beginning in

2027 under certain circumstances. Further, the European Commission is considering the creation of a SAF blending mandate for aviation fuel suppliers beginning in 2025, among other requirements. Individual EU member states have been developing their own requirements including, for example, a SAF mandate in France that came into force on January 1, 2022.

All such climate change-related regulatory activity and developments may adversely affect our business and financial results by requiring us to reduce our emissions before cost-effective emissions reduction technologies are available, for example through requirements to make capital investments to purchase specific types of equipment or technologies, purchase carbon offset credits, or otherwise incur additional costs related to our emissions. Such activity may also impact us indirectly by increasing our operating costs, including fuel costs.

Growing recognition among consumers of the dangers of climate change may mean some customers choose to fly less frequently or fly on an airline they perceive as operating in a manner that is more sustainable to the climate. Business customers may choose to use alternatives to travel, such as virtual meetings and workspaces. Greater development of high-speed rail in markets now served by short-haul flights could provide passengers with lower-carbon alternatives to flying with us. Our collateral to secure loans, in the form of aircraft, spare parts and airport slots, could lose value as customer demand shifts and economies move to low-carbon alternatives, which may increase our financing cost.

Finally, the potential acute and chronic physical effects of climate change, such as increased frequency and severity of storms, floods, fires, sea-level rise, excessive heat, longer-term changes in weather patterns and other climate-related events, could affect our operations, infrastructure and financial results. Operational impacts, such as the canceling of flights, could result in loss of revenue. We could incur significant costs to improve the climate resiliency of our infrastructure and otherwise prepare for, respond to, and mitigate such physical effects of climate change. We are not able to predict accurately the materiality of any potential losses or costs associated with the physical effects of climate change.

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

We are subject to a number of increasingly stringent federal, state, local and foreign laws, regulations and ordinances relating to the protection of human health and the environment and noise reduction, including those relating to emissions to the air, discharges to land and surface and subsurface waters, safe drinking water, and the management of hazardous substances, oils and waste materials. This universe of substances is evolving to encompass many substances not previously regulated. Compliance with environmental laws and regulations can require significant expenditures, and violations can lead to significant fines and penalties, as well as civil liability.

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 retroactive, strict, joint and several, meaning that we could be liable for the costs of cleaning up environmental contamination regardless of when it occurred, 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.

Governmental authorities in the U.S. and abroad are increasingly focused on potential contamination resulting from the use of so-called "forever chemicals," most notably per- and polyfluoroalkyl,

substances (PFAS). Products containing PFAS have been used in manufacturing, industrial, and consumer applications over many decades, including those related to aviation. We may incur costs in connection with obligations to transition away from the usage of PFAS-containing products, to dispose of PFAS-containing waste or to remediate any PFAS contamination.

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, even in certain cases where 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, and 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. The FAA is also currently evaluating possible changes to how aircraft noise is measured, and the resulting standards that are based on them. Ultimately, these changes could have an impact on, or limit, our operations, or make it more difficult for the FAA to modernize and increase the efficiency of airspace and airports we utilize.

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, increased training requirements and other factors have caused a shortage of pilots that could materially adversely affect our business.

Large numbers of pilots in the industry accepted early retirement during the COVID-19 pandemic or 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 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. Further, in the course of the domestic airline industry rapidly restoring capacity during the recovery from the COVID-19 pandemic, the significant training requirements to return large numbers of pilots to active flying have been time consuming and disruptive.

These and other factors have contributed to a significant shortage of qualified, entry-level pilots, shortages of experienced pilots trained and ready for duty, 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 and other 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 airline subsidiaries and other 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 compensation expense and 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.

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, as of the end of 2021, all of our mainline aircraft were manufactured by either Airbus or Boeing and all of our regional aircraft were manufactured by either Bombardier or Embraer. Further, our supplier base continues to consolidate as evidenced by the acquisition of Rockwell Collins by United Technologies and the transactions involving Airbus and Bombardier and Mitsubishi and Bombardier. 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. For instance, in March 2019, the FAA ordered the grounding of all Boeing 737 MAX Family aircraft, which remained in place for over a year and was not lifted in the United States until November 2020, and in April 2021, we removed from operations, pending ongoing inspection and investigation, a subset of our Boeing 737 MAX Family aircraft after receipt of notice from Boeing of a potential electrical power system issue relating to those aircraft. More recently, Boeing has been unable to deliver 787 aircraft that we have on order due to regulatory concerns raised by the FAA, as a result of which we have been forced, on more than one occasion, to significantly reduce our previously scheduled long-haul flying and suspend or delay our service to certain long-haul markets. The limited number of these suppliers may also result in reduced competition and potentially higher prices than if the supplier base was less concentrated.

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 negative impacts 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, or reductions to our schedule, thereby reducing revenues. If new aircraft orders are not filled on a timely basis, we could face higher financing and 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, safety and reliability, we could face higher financing and operating costs than planned and our business, results of operations and financial condition could be adversely impacted. For instance, in March 2019, the FAA grounded all Boeing 737 MAX Family aircraft, including the 24 aircraft in our fleet at the time of the grounding, and which caused us to be unable to take delivery of the Boeing 737 MAX Family aircraft we had on order from Boeing. More recently, Boeing has been unable to deliver 787 aircraft that we have on order due to regulatory concerns raised by the FAA, as a result of which we have been forced, on more than one occasion, to significantly reduce our previously scheduled long-haul flying and suspend or delay our service to certain long-haul markets. Repeated or prolonged delays in the production, delivery or induction of our new aircraft could require us to scale back our growth plans, reduce frequencies or forgo service entirely to certain markets, which could adversely affect our business, financial condition and results of operations.

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, operations systems, financial planning, management and accounting 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 aircraft employ a number of sophisticated radio and satellite-based navigation and safety technologies, and we are subject to risks associated with the introduction or expansion of technologies that could interfere with the safe operation of these flight systems. For example, telecommunications companies are expanding and increasing the commercial and consumer applications of 5G cellular communication networks, and regulators, manufacturers and operators have expressed concerns that certain 5G applications could interfere with certain flight systems. On December 23, 2021, the FAA issued a special airworthiness information bulletin (SAIB), in which it indicated that further testing and assessment is needed regarding the effects of 5G on certain aircraft equipped with radar altimeters, which measure the aircraft's altitude and guide pilots during landings. If it were determined that 5G signals posed an interference risk to these altimeters or other systems, the FAA indicated in its SAIB that it could restrict flight operations in areas where such interference could occur. On January 18, 2022, major U.S. telecommunications companies agreed to delay the implementation of 5G near airports while working with the FAA to develop long-term mitigations to support safe aviation operations. While the telecommunications industry agreed to delay the activation of 5G transmitters in close proximity to airports, it did move forward with the activation of a vast majority of 5G transmitters away from airports, and we expect that companies will continue expanding their 5G networks through the winter and spring of 2022. As a result, the FAA has taken precautionary steps to mitigate any remaining interference risks, which have resulted in minimal impacts to our operations, particularly in low-visibility conditions at certain airports and with our regional carriers. While we are working closely with the FAA and other aviation industry participants to develop a long-term strategy that permits the full implementation of the 5G spectrum without disruption to safe aviation operations, any new restrictions imposed to mitigate interference risks would require us to adjust our operating procedures and could impact our ability to operate certain aircraft or to serve certain markets.

Our technologies and automated systems are not 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. When service interruptions occur as a result of any of the aforementioned events, we address them in accordance with applicable laws, rules and regulations. However, substantial or sustained system failures could cause service delays or failures and result in our customers purchasing tickets from other airlines. We

cannot assure 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.

Evolving data security and privacy requirements could increase our costs, and any significant data security or privacy 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 personal information relating to our customers, employees, business partners and others. However, like any global enterprise operating in today's digital business environment, we have experienced cybersecurity incidents and data breaches. The threat of cybersecurity incidents continues to increase as the frequency, intensity and sophistication of attacks and intrusions increase around the world. We and our business partners have been the target of cybersecurity attacks and data breaches in the past and expect that we will continue to be in the future. We react and respond to these cybersecurity attacks in accordance with the applicable legal requirements, our own approved cybersecurity protocols, as well as our commercial partners' standards, but we cannot ensure that our responses will be sufficient to prevent or mitigate the potential adverse impacts of these incidents, which may be material.

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 proliferating and fast-evolving set of legal requirements in this area, including substantive data privacy and 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 General Data Protection Regulation, commonly referred to as GDPR, came into effect, which imposes a host of 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 involving us or one of our AAdvantage partners or other business partners have in the past and may in the future 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 information or our intellectual property; the loss of functionality of critical systems through ransomware, denial of service or other attacks; a deterioration in our relationships with business partners and other third parties; and business delays, service or system disruptions, damage to equipment and injury to persons or property. For example, in March 2021, a sub-set of AAdvantage members as well as members of several other major airline loyalty programs received a notification about a security incident involving a limited amount of loyalty data held by a service provider. 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 cannot and have not been able to prevent all data security breaches or misuse of data. Similarly, we depend on the ability of our key commercial

partners, including AAdvantage partners, other business partners, 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. A security failure, including a failure to meet relevant payment security standards, breach or other significant cybersecurity incident affecting one of our partners could result in potentially material negative consequences for us. In addition, we use third-party service providers to help us deliver services to customers. These service providers may store personal information, credit card information and/or other confidential information. Such information may be the target of unauthorized access or subject to security breaches as a result of third-party action, employee error, malfeasance or otherwise. Any of these could (a) result in the loss of information, litigation, indemnity obligations, damage to our reputation and other liability, or (b) have a material adverse effect on our business, financial condition and results of operations.

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 are increasing. 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 and enforcement actions requiring costly compliance measures. A significant number of recent privacy and data security incidents, including those involving other large airlines, have resulted in very substantial adverse financial consequences to those companies. A cybersecurity incident could also impact our brand, including that of the AAdvantage program, harm our reputation and adversely impact our relationship with our customers, employees and stockholders. The increased regulatory focus on data privacy practices apart from how personal data is secured, such as how personal data is collected, used for marketing purposes, and shared with third parties, also increases the risk on our business in the event of a significant violation. Accordingly, failure to appropriately address data privacy and cybersecurity issues could result in material financial and other liabilities and cause significant reputational harm to our company.

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 Booking Holdings, including its booking sites Kayak and Priceline), 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. In addition, our agreements with GDSs and other distribution channels are subject to periodic renegotiation, and our efforts to control our distribution costs depend on our ability to renew or continue these agreements on favorable terms. We cannot assure that we will be able to renew our distribution agreements on commercially acceptable terms, and any failure to do so could materially increase our costs, thereby adversely impacting our business, financial condition and results of operations.

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. 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.

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 Dallas/Fort Worth International Airport, JFK, ORD, LAX and LGA. 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 we serve 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 and may impose 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 DCA and LGA 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 1,250 and 1,500 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 International Airline Trade Association 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. Due to the dramatic reduction in air travel resulting from the COVID-19 pandemic, we are in many instances relying on exemptions granted by applicable authorities from the requirement that we continuously use certain slots, gates and routes or risk having such operating rights revoked, and depending on the applicable authority these exemptions can vary in the way they are structured and applied. We cannot predict whether such exemptions will continue to be granted, whether they will be granted on the same or similar terms, or whether we ultimately could be at risk of losing valuable operating rights. If we are forced to surrender slots, we may be unable to provide our desired level of service to or from certain destinations in the future. We cannot provide any assurance that regulatory changes resulting in changes in the application of slot controls or the allocation of or any reallocation of existing slots, the continued enforcement or termination of a perimeter rule or similar regulatory regime will not have a material adverse impact on our operations.

Our ability to provide service can also be impaired at airports, such as LAX and ORD where the airport gates 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.

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

We operate principally through our hubs in Charlotte, Chicago, Dallas/Fort Worth, Los Angeles, Miami, New York, Philadelphia, Phoenix and Washington, D.C. and partner gateways including in London Heathrow (among others). 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, gateways or other airports where we have a significant presence, resulting from air traffic control 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.

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.

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 per-passenger facility charge 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.

Risks Related to Ownership of AAG Common Stock and Convertible Notes

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

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

- the effects of the COVID-19 pandemic on our business or the U.S. and global economies;
- · 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 ratings;
- · 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 (which we have suspended for an indefinite period in accordance with the applicable requirements under the CARES Act, the PSP Extension Law and the ARP);
- new regulatory pronouncements and changes in regulatory guidelines;

- general and industry-specific economic conditions;
- changes in our key personnel;
- public or private 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, including warrants we have issued in connection with our receipt of funds under the CARES Act, the PSP Extension Law and the ARP;
- increases or decreases in reported holdings by insiders or other significant stockholders;
- · fluctuations in trading volume; and
- technical factors in the public trading market for our stock that may produce price movements
 that may or may not comport with macro, industry or company-specific fundamentals, including,
 without limitation, the sentiment of retail investors (including as may be expressed on financial
 trading and other social media sites), the amount and status of short interest in our securities,
 access to margin debt, trading in options and other derivatives on our common stock and any
 related hedging and other technical trading factors.

The closing price of our common stock on Nasdaq varied from \$15.00 to \$25.82 during 2021 and \$15.64 to \$19.34 during 2022 year-to-date through February 18, 2022. At times during this period, fluctuations in our stock price have been rapid, imposing risks on investors due to the possibility of significant, short-term price volatility. While we believe that this wide range of trading prices is broadly indicative of the changing prospects for a large airline facing the challenges imposed by the COVID-19 pandemic, we also believe, based in part on the commentary of market analysts, that the trading price of our common stock has at times been influenced by the technical trading factors discussed in the last bullet above. On some occasions, market analysts have explained fluctuations in our stock price by reference to purported "short squeeze" activity. A "short squeeze" is a technical market condition that occurs when the price of a stock increases substantially, forcing market participants who had taken a position that its price would fall (i.e., who had sold the stock "short"), to buy it, which in turn may create significant, short-term demand for the stock not for fundamental reasons, but rather due to the need for such market participants to acquire the stock in order to forestall the risk of even greater losses. A "short squeeze" condition in the market for a stock can lead to short-term conditions involving very high volatility and trading that may or may not track fundamental valuation models.

We have ceased making repurchases of our common stock and paying dividends on our common stock as required by the CARES Act, the PSP Extension Law and the ARP. Following the end of those restrictions, if we do decide to make repurchases of or pay dividends on our common stock, we cannot guarantee that we will continue to do so or that our capital deployment program will enhance long-term stockholder value.

In connection with the financial assistance provided under PSP1, PSP2 and PSP3, we agreed not to repurchase shares of AAG common stock through September 30, 2022. If we determine to make any share repurchases in the future, such 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 again 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, such as the requirements of the CARES Act, the PSP Extension Law, the ARP 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.

In connection with the financial assistance provided under PSP1, PSP2 and PSP3, we agreed not to pay dividends on AAG common stock through September 30, 2022. If we determine to make any dividends in the future, such 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 again 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 they will do so.

AAG's Certificate of Incorporation and Bylaws include provisions that limit voting and acquisition and disposition of our equity interests and specify an exclusive forum for certain stockholder disputes.

Our Certificate of Incorporation and Bylaws include significant 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" and AAG's Description of the Registrants' Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934, which is filed as Exhibit 4.1 hereto. 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.

Our Certificate of Incorporation also specifies that the Court of Chancery of the State of Delaware shall be the exclusive forum for substantially all disputes between us and our stockholders. Because the applicability of the exclusive forum provision is limited to the extent permitted by applicable law, we do not intend for the exclusive forum provision to apply to suits brought to enforce any duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction, and acknowledge that federal courts have concurrent jurisdiction over all suits brought to enforce any duty or liability created by the Securities Act. We note that there is uncertainty as to whether a court would enforce the provision as it applies to the Securities Act and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. This provision may have the effect of discouraging lawsuits against our directors and officers.

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.

The issuance or sale of shares of our common stock, rights to acquire shares of our common stock, or warrants issued to Treasury under the CARES Act, the PSP Extension Law, the ARP, PSP1, PSP2 and PSP3, could depress the trading price of our common stock and the Convertible Notes.

We may conduct future offerings of material amounts of our common stock, preferred stock or other securities that are convertible into or exercisable for our common stock to finance our operations, to fund acquisitions, or for any other purposes at any time and from time to time (including as compensation to the U.S. Government for the proceeds received pursuant to PSP1, PSP2 or PSP3). If these additional shares or securities are issued or sold, or if it is perceived that they will be sold, into the public market or otherwise, the price of our common stock and Convertible Notes could decline substantially. If we issue additional shares of our common stock or rights to acquire shares of our common stock, if any of our existing stockholders sells a substantial amount of our common stock, or if the market perceives that such issuances or sales may occur, then the trading price of our common stock and Convertible Notes could decline substantially.

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, 2021.

ITEM 2. PROPERTIES

Flight Equipment and Fleet Renewal

As of December 31, 2021, American operated a mainline fleet of 865 aircraft. During 2021, American accepted delivery of 25 mainline aircraft, temporarily parked 14 mainline aircraft and retired one 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, 2021, American Eagle operated 567 regional aircraft. During 2021, we increased our regional fleet by a net of 23 aircraft, including the addition of 52 regional aircraft, the retirement of 26 regional aircraft and temporarily parking three regional aircraft.

Mainline

As of December 31, 2021, American's mainline fleet consisted of the following aircraft:

	Average Seating Capacity	Average Age (Years)	Owned	Leased	Total
Airbus A319	128	17.7	21	112	133
Airbus A320	150	20.7	10	38	48
Airbus A321	182	9.4	164	54	218
Airbus A321neo	196	1.3	9	35	44
Boeing 737-800 (1)	172	10.7	96	171	267
Boeing 737-8 MAX	172	2.4	9	33	42
Boeing 777-200ER	273	21.0	44	3	47
Boeing 777-300ER	304	7.8	18	2	20
Boeing 787-8	234	5.3	20	4	24
Boeing 787-9	285	4.2	_17	5	22
Total		11.3	408	457	865

⁽¹⁾ Excluded from the total operating aircraft count above are 36 owned Boeing 737-800 that are being held in temporary storage.

Regional

As of December 31, 2021, 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
Bombardier CRJ 700	65	54	7	82	143	SkyWest PSA	82 61
Bombardier CRJ 900	76	69	_	40	109	Total PSA Mesa	143 69 40
Embraer 170 ⁽¹⁾	65	_	6	8	14	Total Envoy Republic	109 6 8
Embraer 175	76	98	_	96	194	Total Envoy Republic SkyWest	14 98 88 8
Embraer 145 (1)	50	107	_	_	107	Total Piedmont Envoy Total	194 50 57 107
Total		328	13	226	567	Total	567

⁽¹⁾ Excluded from the total operating aircraft count above are 10 regional aircraft that are being held in temporary storage as follows: eight owned Embraer 145s and two owned Embraer 170s.

See Note 11 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, 2021, we had definitive purchase agreements for the acquisition of the following aircraft (1):

	2022	2023	2024	2025	2026	2027 and Thereafter	Total
Airbus							
A320neo Family	26	5	18	22	5		76
Boeing (2)							
737 MAX Family		27	21	20	20		88
787 Family	10	7	8	9	4	5	43
Embraer							
<u>175</u>	3	_	_	_	_		3
Total	39	39	47	51	29	<u></u>	210

⁽¹⁾ Delivery schedule represents our most current estimate as of the date of this report. Actual delivery dates are subject to change, which could be material, based on various potential factors including production delays by the manufacturer and regulatory concerns, such as those that have recently prevented The Boeing Company (Boeing) from timely delivering 787 Family aircraft.

On January 31, 2022, we entered into an amended purchase agreement with Boeing pursuant to which we agreed to purchase 23 additional Boeing 737 MAX Family aircraft through the conversion of existing purchase options. We also intend to exercise purchase options for an additional seven aircraft in 2022, bringing our total incremental firm order of Boeing 737 MAX Family aircraft to 30, with 15 of such aircraft scheduled to be delivered in 2023 and 15 scheduled to be delivered in 2024. In addition, we entered into an amended purchase agreement with Boeing to defer the delivery of certain Boeing 787 Family aircraft previously scheduled to be delivered beginning in January 2023. Pursuant to this amendment, deliveries of these aircraft are now scheduled to commence in the fourth quarter of 2023 and will continue into 2027. The table above and the table in Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – "Contractual Obligations" reflect our purchase commitments after giving effect to these amendments and assumes our exercise of the seven 737 MAX Family aircraft purchase options mentioned above.

We also have agreements for 39 spare engines to be delivered in 2022 and beyond.

We currently have financing commitments in place for all aircraft on order and scheduled to be delivered in 2022 except for five Airbus A320neo Family aircraft and three Embraer 175 aircraft. Our ability to draw on the financing commitments we have in place is subject to (1) the satisfaction of various terms and conditions including, in some cases, on our acquisition of the aircraft by a certain date and (2) the performance by the counterparty providing such financing commitments of its obligations thereunder. We do not have financing commitments in place for any of the aircraft scheduled to be delivered in 2023 and beyond, except for seven Boeing 787 Family aircraft scheduled to be delivered in 2023 and one Boeing 787 Family aircraft scheduled to be delivered in 2024. 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 11 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 lease or have built on leased property our headquarters and 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.

ITEM 3. LEGAL PROCEEDINGS

See Note 11 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 information on legal proceedings.

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 under the trading symbol "AAL." There is no trading market for the common stock of American, which is a wholly-owned subsidiary of AAG.

As of February 18, 2022, there were approximately 13,000 holders of record of our common stock. 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 2022 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 on Common Stock

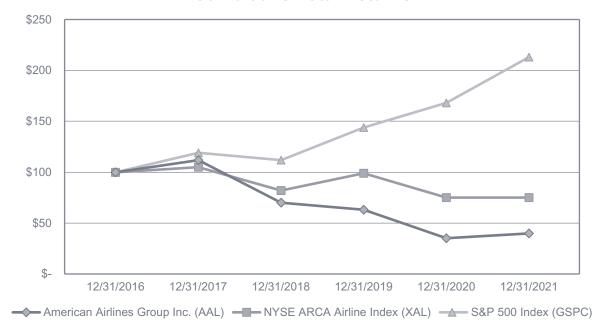
There were no cash dividend payments during the year ended December 31, 2021. The total cash payment for dividends during the year ended December 31, 2020 was \$43 million. In connection with our receipt of financial assistance under PSP1, PSP2 and PSP3, we agreed not to pay dividends on AAG common stock through at least September 30, 2022. If we determine to make any dividends in the future, such 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 again 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, 2016 to December 31, 2021 of our common stock to the New York Stock Exchange (NYSE) ARCA Airline Index and the Standard and Poor's Financial Services, LLC (S&P) 500 Stock Index. The comparison assumes \$100 was invested on December 31, 2016 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.

Cumulative Total Returns



	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021
American Airlines Group Inc. (AAL)	\$100	\$112	\$ 70	\$ 63	\$ 35	\$ 40
NYSE ARCA Airline Index (XAL)	100	105	82	99	75	74
S&P 500 Index (GSPC)	100	119	112	144	168	213

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The authority to repurchase \$420 million of remaining shares under our most recent \$2.0 billion share repurchase program expired on December 31, 2020. In connection with our receipt of financial assistance under PSP1, PSP2 and PSP3, we agreed not to repurchase shares of AAG common stock through at least September 30, 2022.

See Part I, Item 1A. Risk Factors – "We have ceased making repurchases of our common stock and paying dividends on our common stock as required by the CARES Act, the PSP Extension Law and the ARP. Following the end of those restrictions, if we do decide to make repurchases of or pay dividends on our common stock, we cannot guarantee that we will continue to do so or that our capital deployment program will enhance long-term stockholder value."

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, and in connection with the expiration in December 2021 of certain transfer restrictions applicable to substantial shareholders contained in our Certificate of Incorporation, the Board of Directors of AAG adopted the Tax Benefits Preservation Plan in order to preserve our ability to use our NOLs and certain other tax attributes to reduce potential future income tax obligations. The Tax Benefits Preservation Plan is designed to reduce the likelihood that we experience an "ownership change" for purposes of Section 382 by deterring certain acquisitions of AAG common stock. There is no assurance, however, that the deterrent mechanism will be effective, and such acquisitions may still occur. In addition, the Tax Benefits Preservation Plan may adversely affect the marketability of AAG common stock by discouraging existing or potential investors from acquiring AAG common stock or additional shares of AAG common stock, because any non-exempt third party that acquires 4.9% or more of the thenoutstanding shares of AAG common stock would suffer substantial dilution of its ownership interest in AAG. We intend to submit the Tax Benefits Preservation Plan for ratification to our stockholders at the 2022 Annual Meeting of Stockholders of American Airlines Group Inc.

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 and specify an exclusive forum for certain stockholder disputes" and "Our ability to utilize our NOLs and other carryforwards may be limited." 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 and AAG's Description of the Registrants' Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934, which is filed as Exhibit 4.1 hereto, for a more detailed description.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

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 and as of December 31, 2021, 2020 and 2019, are derived from AAG's audited consolidated financial statements.

	Year Ended December 31,				
	2021	2020	2019		
	(In millions, exce	pt share and per	share amounts)		
Consolidated Statements of Operations data:					
Total operating revenues	\$ 29,882	\$ 17,337	\$ 45,768		
Total operating expenses	30,941	27,758	42,703		
Operating income (loss)	(1,059)	(10,421)	3,065		
Net income (loss)	(1,993)	(8,885)	1,686		
Earnings (loss) per common share:					
Basic	\$ (3.09)	\$ (18.36)	\$ 3.80		
Diluted	(3.09)	(18.36)	3.79		
Shares used for computation (in thousands):					
Basic	644,015	483,888	443,363		
Diluted	644,015	483,888	444,269		
Cash dividends declared per common share	\$ —	\$ 0.10	\$ 0.40		
Consolidated Balance Sheet data (at end of period):					
Total assets	\$ 66,467	\$ 62,008	\$ 59,995		
Debt and finance leases	38,060	32,593	24,315		
Pension and postretirement obligations (1)	5,150	7,131	6,081		
Operating lease liabilities	8,117	8,428	9,129		
Stockholders' deficit	(7,340)	(6,867)	(118)		

⁽¹⁾ Substantially all defined benefit pension plans were frozen effective November 1, 2012. See Note 9 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 accounting principles generally accepted in the U.S. (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.

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

		Ended iber 31,
	2021	2020
0 (7 (10) 114 (10)	(In mi	llions)
Components of Total Special Items, Net: (1) PSP Financial Assistance (2) Severance expenses (3) Litigation reserve adjustments Mark-to-market adjustments on bankruptcy obligations, net (4) Fleet impairment (5) Labor contract expenses (6) Other operating special items, net	\$(4,162) 168 (19) (3) — 10	1,408 ————————————————————————————————————
Mainline operating special items, net	(4,006)	(657)
PSP Financial Assistance (2) Regional pilot retention program (7) Fleet impairment (5) Severance expenses (3)	(539) 61 27 2	(444) 117 18
Regional operating special items, net	(449)	(309)
Operating special items, net	(4,455)	(966)
Mark-to-market adjustments on equity and other investments, net (8) Debt refinancing, extinguishment and other, net	31 29 60	135 35 170
Pre-tax special items, net	(4,395)	(796)
Total special items, net	\$(4,395)	\$ (796)
Reconciliation of Pre-Tax Loss Excluding Net Special Items:		
Pre-tax loss – GAAP	\$(2,548) (4,395)	\$(11,453) (796)
Pre-tax loss excluding net special items	\$(6,943)	\$(12,249)
Reconciliation of Net Loss Excluding Net Special Items: Net loss – GAAP Adjusted for: Total special items, net Adjusted for: Net tax effect of net special items	\$(1,993) (4,395) 993	(796) 170
Net loss excluding net special items	\$(5,395)	\$ (9,511)

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

⁽²⁾ The 2021 PSP Financial Assistance represents recognition of a portion of the financial assistance received from Treasury pursuant to the PSP2 and PSP3 Agreements. See Note 1(b) to AAG's Consolidated Financial Statements in Part II, Item 8A for further information. The 2020 PSP Financial Assistance represents recognition of a portion of the financial assistance received from Treasury pursuant to the PSP1 Agreement.

⁽³⁾ Severance expenses include salary and medical costs primarily associated with certain team members who opted into voluntary early retirement programs offered as a result of reductions to our operation due to the COVID-19 pandemic. Cash payments primarily associated with our voluntary early retirement programs were approximately \$520 million and \$365 million in 2021 and 2020, respectively.

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

⁽⁵⁾ Fleet impairment charges resulted from the retirement of certain aircraft earlier than planned driven by the severe decline in air travel due to the COVID-19 pandemic. In 2021, we retired our

remaining Embraer 140 fleet resulting in a non-cash write-down of these regional aircraft. See Note 1(g) to AAG's Consolidated Financial Statements in Part II, Item 8A for further information related to these charges.

In 2020, we retired our entire Airbus A330-200, Boeing 757, Boeing 767, Airbus A330-300 and Embraer 190 fleets as well as certain Embraer 140 and Bombardier CRJ200 aircraft resulting in a \$1.5 billion non-cash write-down of mainline and regional aircraft and associated spare parts and \$109 million in cash charges primarily for impairment of right-of-use (ROU) assets and lease return costs.

- (6) The 2020 labor contract expenses primarily related to one-time charges due to the ratification of a new contract with the TWU-IAM Association for our maintenance and fleet service team members, including signing bonuses and adjustments to vacation accruals resulting from pay rate increases.
- Our regional pilot retention program provides for, among other things, a cash retention bonus paid in the fourth quarter of 2021 to eligible captains at our wholly-owned regional airlines included on the pilot seniority list as of September 1, 2021.
- (8) Mark-to-market adjustments on equity and other investments, net primarily related to net unrealized gains and losses associated with our equity investments in China Southern Airlines and in 2021, Vertical Aerospace Ltd. (Vertical), and certain treasury rate lock derivative instruments.

Additionally, the table below presents the reconciliation of total operating expenses (GAAP measure) to total operating costs excluding net special items and fuel (non-GAAP measure) and total operating cost per available seat mile (CASM) to CASM excluding net special items and fuel. Management uses total operating costs excluding net special items and fuel and CASM excluding net 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 fuel and net 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 D	December 31,
	2021	2020
Reconciliation of CASM Excluding Net Special Items and Fuel:		
(In millions) Total operating expenses – GAAP	\$ 30,941	\$ 27,758
Mainline operating special items, net	4,006 449 (6,792)	657 309 (3,402)
Total operating expenses, excluding net special items and fuel	\$ 28,604	\$ 25,322
(In millions) Total Available Seat Miles (ASM)	214,535	143,167
CASM	14.42	19.39
Mainline operating special items, net	1.87	0.46
Regional operating special items, net	0.21	0.22
Aircraft fuel and related taxes per ASM	(3.17)	(2.38)
CASM, excluding net special items and fuel	13.33	17.69

⁽¹⁾ See Note 2 to AAG's Consolidated Financial Statements in Part II, Item 8A for further information on net 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 and as of December 31, 2021, 2020 and 2019, are derived from American's audited consolidated financial statements.

	Year Ended December 31,			
	2021	2020	2019	
		(In millions)		
Consolidated Statements of Operations data:				
Total operating revenues	\$29,880	\$ 17,335	\$45,761	
Total operating expenses	30,841	27,559	42,714	
Operating income (loss)	(961)	(10,224)	3,047	
Net income (loss)	(1,777)	(8,450)	1,972	
Consolidated Balance Sheet data (at end of period):				
Total assets	\$71,145	\$ 69,215	\$71,890	
Debt and finance leases	32,094	28,982	23,042	
Pension and postretirement obligations (1)	5,117	7,089	6,037	
Operating lease liabilities	8,074	8,380	9,083	
Stockholder's equity	3,826	4,348	13,422	

⁽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

2021 Financial Overview

Impact of COVID-19

COVID-19 has been declared a global health pandemic by the World Health Organization. COVID-19 has surfaced in nearly all regions of the world, which has driven the implementation of significant, government-imposed measures to prevent or reduce its spread, including travel restrictions, testing regimes, closing of borders, "stay at home" orders and business closures. Ongoing global vaccination efforts and the corresponding lifting of government restrictions in and between many markets resulted in a partial recovery in demand for air travel in 2021, which improved our revenues as compared to 2020. However, the return of demand was weaker than previous expectations and the speed and strength of this recovery remain uncertain, primarily due to the global rise in COVID-19 cases associated with the delta and omicron variants and the potential for continuation or reimposition of restrictions on global travel. The continued impact of the COVID-19 pandemic, including any increases in infection rates, new variants and renewed governmental action to slow the spread of COVID-19 cannot be estimated.

We have taken aggressive actions since the beginning of the COVID-19 pandemic to mitigate its effects on our business, including capacity reductions, structural changes to our fleet, cost reductions including implementing voluntary leave and early retirement programs, and steps to preserve cash and improve our overall liquidity position, consistent with the terms of the financial assistance we have received from the U.S. Government under the CARES Act, the PSP Extension Law and the ARP.

Capacity Reductions

Our capacity (as measured by available seat miles) continues to be reduced compared to pre-COVID-19 pandemic levels, with total capacity in 2021 down 24.7% as compared to 2019. Domestic capacity in 2021 was down 14.5% while international capacity was down 44.9% as compared to 2019.

We currently expect our first quarter of 2022 system capacity to be down 8% to 10% as compared to the first quarter of 2019. While demand for domestic and short-haul international markets has largely recovered to 2019 levels, uncertainty remains regarding the timing of a full recovery. We will continue to match our forward capacity with observed booking trends for future travel and make further adjustments to our capacity as needed.

Cost Reductions

In aggregate, we have reduced our 2021 operating expenditures by approximately \$1.3 billion, which are permanent non-volume cost reductions and other efficiency measures. These reductions include approximately \$600 million in labor productivity enhancements, \$500 million in management salaries and benefits and \$200 million in other permanent cost reductions. Also, during the first quarter of 2021, approximately 1,600 represented team members opted into a voluntary early retirement program.

Liquidity

As of December 31, 2021, we had \$15.8 billion in total available liquidity, consisting of \$12.4 billion in unrestricted cash and short-term investments, \$2.8 billion in undrawn capacity under revolving credit facilities and a total of \$568 million in undrawn short-term revolving and other facilities.

During 2021, we completed the following financing transactions (see Note 4 to AAG's Consolidated Financial Statements in Part II, Item 8A for further information):

- issued \$3.5 billion in aggregate principal amount of 5.50% Senior Secured Notes due 2026 and \$3.0 billion in aggregate principal amount of 5.75% Senior Secured Notes due 2029 and entered into the \$3.5 billion AAdvantage Term Loan Facility of which the full amount of term loans was drawn at closing;
- repaid in full \$750 million under the 2013 Revolving Facility, \$1.6 billion under the 2014 Revolving Facility and \$450 million under the April 2016 Revolving Facility, all of which was borrowed in the second quarter of 2020 in response to the COVID-19 pandemic;
- repaid the \$550 million of outstanding loans under, and terminated, the \$7.5 billion secured term loan facility with Treasury (the Treasury Loan Agreement);
- issued 24.2 million shares of AAG common stock at an average price of \$19.26 per share pursuant to an at-the-market offering for net proceeds of \$460 million (approximately \$650 million of at-the-market authorization remains available at December 31, 2021);
- issued approximately \$150 million in special facility revenue bonds related to JFK, of which \$62 million was used to fund the redemption of other bonds related to JFK;
- repaid in full \$950 million of the outstanding balance under, and terminated, the April 2016
 Spare Parts Term Loan Facility;
- received approximately \$94 million in proceeds from enhanced equipment trust certificates (EETCs) and other aircraft and flight equipment financing, all of which was used to repay existing indebtedness; and
- received approximately \$193 million of cash proceeds from the sale of property and equipment primarily related to aircraft fleets retired in 2020 and raised \$181 million principally from aircraft sale-leaseback transactions.

In addition to the foregoing financings, during 2021, we received an aggregate of approximately \$3.5 billion in financial assistance through the payroll support program (PSP2) established under the PSP Extension Law. In connection with our receipt of this financial assistance, AAG issued a promissory note (the PSP2 Promissory Note) to Treasury for \$1.0 billion in aggregate principal amount and warrants to purchase up to an aggregate of approximately 6.6 million shares (the PSP2 Warrant Shares) of AAG common stock.

Also in 2021, we received an aggregate of approximately \$3.3 billion in financial assistance through the payroll support program (PSP3) established under the ARP. In connection with our receipt of this financial assistance, AAG issued a promissory note (the PSP3 Promissory Note) to Treasury for \$946 million in aggregate principal amount and warrants to purchase up to an aggregate of approximately 4.4 million shares (the PSP3 Warrant Shares) of AAG common stock. See Note 1(b) to AAG's Consolidated Financial Statements in Part II, Item 8A for further discussion on PSP2 and PSP3.

A significant portion of our debt financing agreements 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 and/or contain loan to value, collateral coverage and/or peak debt service coverage ratio covenants.

Given the above actions and our current assumptions about the future impact of the COVID-19 pandemic on travel demand, which could be materially different due to the inherent uncertainties of the current operating environment, we expect to meet our cash obligations as well as remain in compliance

with the debt covenants in our existing financing agreements for the next 12 months based on our current level of unrestricted cash and short-term investments, our anticipated access to liquidity (including via proceeds from financings), and projected cash flows from operations.

See Note 4 to AAG's Consolidated Financial Statements in Part II, Item 8A for additional information on our debt obligations.

AAG's 2021 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.

Beginning in the first quarter of 2021, aircraft fuel and related taxes as well as certain salaries, wages and benefits, other rent and landing fees, selling and other expenses are no longer allocated to regional expenses on our statements of operations. The 2020 consolidated statement of operations has been recast to conform to the 2021 presentation within this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations. This statement of operations presentation change has no impact on total operating expenses or net loss.

	Year Ended [December 31,	Increase	Percent Increase
	20212020		(Decrease)	(Decrease) (2)
	(In mi	llions, except pe	ercentage cha	nges)
Passenger revenue	\$26,063	\$ 14,518	\$11,545	79.5
Cargo revenue	1,314	769	545	70.8
Other operating revenue	2,505	2,050	455	22.2
Total operating revenues	29,882	17,337	12,545	72.4
Aircraft fuel and related taxes	6,792	3,402	3,390	99.6
Salaries, wages and benefits	11,817	11,229	588	5.2
Total operating expenses	30,941	27,758	3,183	11.5
Operating loss	(1,059)	(10,421)	(9,362)	(89.8)
Pre-tax loss	(2,548)	(11,453)	(8,905)	(77.7)
Income tax benefit	(555)	(2,568)	(2,013)	(78.4)
Net loss	(1,993)	(8,885)	(6,892)	(77.6)
Pre-tax loss – GAAP	\$ (2,548)	\$(11,453)	\$ (8,905)	(77.7)
Adjusted for: pre-tax net special items (1)	(4,395)	(796)	3,599	nm ⁽³⁾
Pre-tax loss excluding net special items	\$ (6,943)	\$(12,249)	\$ (5,306)	(43.3)

⁽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 pre-tax net special items.

Pre-Tax Loss and Net Loss

Pre-tax loss and net loss were \$2.5 billion and \$2.0 billion, respectively, in 2021. This compares to 2020 pre-tax loss and net loss of \$11.5 billion and \$8.9 billion, respectively. Excluding the effects of pre-tax net special items, pre-tax loss was \$6.9 billion and \$12.2 billion in 2021 and 2020, respectively.

The year-over-year improvement in our pre-tax loss, on both a GAAP basis and excluding pre-tax net special items, was principally due to higher revenues driven by domestic and short-haul

⁽²⁾ Fluctuations may not be meaningful due to the volatility caused by the COVID-19 pandemic.

⁽³⁾ Not meaningful or greater than 100% change.

international leisure demand, offset in part by an increase in our operating expenses due to a 49.8% increase in our capacity as compared to 2020 as demand returned from the trough of the COVID-19 pandemic.

Revenue

In 2021, we reported total operating revenues of \$29.9 billion, an increase of \$12.5 billion, or 72.4%, as compared to 2020. Passenger revenue was \$26.1 billion, an increase of \$11.5 billion, or 79.5%, as compared to 2020. The increase in passenger revenue in 2021 was due to a 75.9% increase in revenue passenger miles (RPMs) and an 11.2 point increase in passenger load factor. These increases were principally driven by a significant recovery in domestic and short-haul international leisure demand as compared to 2020.

In 2021, cargo revenue was \$1.3 billion, an increase of \$545 million, or 70.8%, as compared to 2020, primarily due to a 50.5% increase in cargo ton miles reflecting higher freight volumes as a result of adding international widebody capacity and the continuation of cargo-only flights, as well as a 13.4% increase in cargo yield as a result of higher rates.

Other operating revenue increased \$455 million, or 22.2%, in 2021 as compared to 2020, driven primarily by higher revenue associated with our loyalty program.

Our total revenue per available seat mile (TRASM) was 13.93 cents in 2021, a 15.0% increase as compared to 12.11 cents in 2020.

Fuel

In 2021, aircraft fuel expense totaled \$6.8 billion, an increase of \$3.4 billion, or 99.6%, as compared to 2020. This increase was primarily driven by a 44.7% increase in fuel consumption as a result of increased capacity and a 37.9% increase in the average price per gallon of aircraft fuel including related taxes to \$2.04 in 2021 from \$1.48 in 2020.

As of December 31, 2021, we did not have any fuel hedging contracts outstanding to hedge our fuel consumption. 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. 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.

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: general economic conditions and the price of fuel. In particular, the onset of the COVID-19 pandemic resulted in a very rapid deterioration in general economic conditions.

Our 2021 CASM was 14.42 cents, a decrease of 25.6%, from 19.39 cents in 2020. This decrease in CASM was primarily driven by higher capacity due to increased passenger demand and cost reduction and efficiency initiatives discussed above, offset in part by an increase in fuel price.

Our 2021 CASM excluding net special items and fuel was 13.33 cents, a decrease of 24.6%, from 17.69 cents in 2020. This decrease in CASM excluding net special items and fuel was primarily driven by higher capacity due to increased passenger demand and cost reduction and efficiency initiatives as previously discussed.

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

AAG's Results of Operations

For a comparison of the 2020 to 2019 reporting periods, see Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – "AAG's Results of Operations" of our 2020 Form 10-K.

Operating Statistics

The table below sets forth selected operating data for the years ended December 31, 2021 and 2020.

		Ended ber 31,	Increase (Decrease)	
	2021	2020		
Revenue passenger miles (millions) (a)	161,538	91,825	75.9%	
Available seat miles (millions) (b)	214,535	143,167	49.8%	
Passenger load factor (percent) (c)	75.3	64.1	11.2pts	
Yield (cents) (d)	16.13	15.81	2.0%	
Passenger revenue per available seat mile (cents) (e)	12.15	10.14	19.8%	
Total revenue per available seat mile (cents) (f)	13.93	12.11	15.0%	
Fuel consumption (gallons in millions)	3,324	2,297	44.7%	
Average aircraft fuel price including related taxes (dollars per				
gallon)	2.04	1.48	37.9%	
Total operating cost per available seat mile (cents) (g)	14.42	19.39	(25.6)%	
Aircraft at end of period (h)	1,432	1,399	2.4%	
Full-time equivalent employees at end of period	123,400	102,700	20.2%	

⁽a) Revenue passenger mile (RPM) – A basic measure of sales volume. One RPM represents one passenger 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 revenue divided by ASMs.
- (f) Total revenue per available seat mile (TRASM) Total revenues divided by ASMs.
- (9) Total operating cost per available seat mile (CASM) Total operating expenses divided by ASMs.
- (h) Includes aircraft owned and leased by American as well as aircraft operated by third-party regional carriers under capacity purchase agreements. Excludes 36 mainline and 10 regional aircraft that are in temporary storage at December 31, 2021 as follows: 36 Boeing 737-800, eight Embraer 145 and two Embraer 170.

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

Operating Revenues

	Year Ended I	December 31,		Percent		
	2021 2020		Increase	Increase		
	(In millio	ns, except perc	entage chan	ntage changes)		
Passenger	\$26,063	\$14,518	\$11,545	79.5		
Cargo	1,314	769	545	70.8		
Other	2,505	2,050	455	22.2		
Total operating revenues	\$29,882	\$17,337	\$12,545	72.4		

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

	Year Ended December 31, 2021	vs. Year Ended December 31, 2020						
		Passenger Revenue	RPMs	ASMs	Load Factor	Passenger Yield	PRASM	
	(In millions)							
Passenger revenue	\$26,063	79.5%	75.9%	49.8%	11.2pts	2.0%	19.8%	

Passenger revenue increased \$11.5 billion, or 79.5%, in 2021 from 2020 primarily due to a 75.9% increase in RPMs driven by a significant recovery in domestic and short-haul international leisure demand, resulting in a 75.3% load factor in 2021.

Cargo revenue increased \$545 million, or 70.8%, in 2021 from 2020 primarily due to a 50.5% increase in cargo ton miles reflecting higher freight volumes as a result of adding international widebody capacity and the continuation of cargo-only flights, as well as a 13.4% increase in cargo yield as a result of higher rates.

Other operating revenue increased \$455 million, or 22.2%, in 2021 from 2020 driven primarily by higher revenue associated with our loyalty program.

Total operating revenues in 2021 increased \$12.5 billion, or 72.4%, from 2020 driven principally by the increase in passenger revenue as described above. Our TRASM increased 15.0% to 13.93 cents in 2021 from 12.11 cents in 2020.

Operating Expenses

	Year E Decem	Ended ber 31,	Increase	Percent Increase
	2021 2020		(Decrease)	(Decrease)
	(In mill	hanges)		
Aircraft fuel and related taxes	\$ 6,792	\$ 3,402	\$ 3,390	99.6
Salaries, wages and benefits	11,817	11,229	588	5.2
Regional expenses	3,204	2,962	242	8.2
Maintenance, materials and repairs	1,979	1,585	394	24.8
Other rent and landing fees	2,619	2,004	615	30.7
Aircraft rent	1,425	1,341	84	6.2
Selling expenses	1,098	666	432	65.0
Depreciation and amortization	2,019	2,040	(21)	(1.1)
Mainline operating special items, net	(4,006)	(657)	(3,349)	nm
Other	3,994	3,186	808	25.4
Total operating expenses	\$30,941	\$27,758	\$ 3,183	11.5

Total operating expenses increased \$3.2 billion, or 11.5%, in 2021 from 2020 primarily due to increases in aircraft fuel and related taxes and other costs due to our increased capacity, offset in part by a \$3.5 billion increase in net operating special credits and cost reduction actions as described above. See further discussion of operating special items, net below.

Aircraft fuel and related taxes increased \$3.4 billion, or 99.6%, in 2021 from 2020 primarily due to a 44.7% increase in fuel consumption as a result of increased capacity and a 37.9% increase in the average price per gallon of aircraft fuel including related taxes to \$2.04 in 2021 from \$1.48 in 2020.

Other rent and landing fees increased \$615 million, or 30.7%, in 2021 from 2020 primarily due to an increase in landing fees and variable rent as a result of our increased capacity.

Aircraft rent increased \$84 million, or 6.2%, in 2021 from 2020 primarily due to the delivery of 25 new leased mainline aircraft in 2021.

Selling expenses increased \$432 million, or 65.0%, in 2021 from 2020 due to higher credit card fees and higher commission expense driven by the overall increase in revenues.

Depreciation and amortization decreased \$21 million, or 1.1%, in 2021 from 2020 primarily due to the early retirement of aircraft as a result of the COVID-19 pandemic, offset in part by a write down of excess spare parts inventory.

Operating Special Items, Net

	Year Ended December 31	
	2021	2020
	(In mil	lions)
PSP Financial Assistance (1)	\$(4,162)	\$(3,710)
Severance expenses (2)	168	1,408
Litigation reserve adjustments	(19)	
Mark-to-market adjustments on bankruptcy obligations, net (3)	(3)	(49)
Fleet impairment (4)	_	1,484
Labor contract expenses (5)	_	228
Other operating special items, net	10	(18)
Mainline operating special items, net	(4,006)	(657)
PSP Financial Assistance (1)	(539)	(444)
Regional pilot retention program (6)	` 61 [′]	
Fleet impairment (4)	27	117
Severance expenses (2)	2	18
Regional operating special items, net	(449)	(309)
Operating special items, net	\$(4,455)	\$ (966)

⁽¹⁾ The 2021 PSP Financial Assistance represents recognition of a portion of the financial assistance received from Treasury pursuant to the PSP2 and PSP3 Agreements. See Note 1(b) to AAG's Consolidated Financial Statements in Part II, Item 8A for further information. The 2020 PSP Financial Assistance represents recognition of a portion of the financial assistance received from Treasury pursuant to the PSP1 Agreement.

⁽²⁾ Severance expenses include salary and medical costs primarily associated with certain team members who opted into voluntary early retirement programs offered as a result of reductions to our operation due to the COVID-19 pandemic. Cash payments primarily associated with our voluntary early retirement programs were approximately \$520 million and \$365 million in 2021 and 2020, respectively.

- (3) Bankruptcy obligations that will be settled in shares of our common stock are marked-to-market based on our stock price.
- (4) Fleet impairment charges resulted from the retirement of certain aircraft earlier than planned driven by the severe decline in air travel due to the COVID-19 pandemic. In 2021, we retired our remaining Embraer 140 fleet resulting in a non-cash write-down of these regional aircraft. See Note 1(g) to AAG's Consolidated Financial Statements in Part II, Item 8A for further information related to these charges.
 - In 2020, we retired our entire Airbus A330-200, Boeing 757, Boeing 767, Airbus A330-300 and Embraer 190 fleets as well as certain Embraer 140 and Bombardier CRJ200 aircraft resulting in a \$1.5 billion non-cash write-down of mainline and regional aircraft and associated spare parts and \$109 million in cash charges primarily for impairment of ROU assets and lease return costs.
- (5) The 2020 labor contract expenses primarily related to one-time charges due to the ratification of a new contract with the TWU-IAM Association for our maintenance and fleet service team members, including signing bonuses and adjustments to vacation accruals resulting from pay rate increases.
- (6) Our regional pilot retention program provides for, among other things, a cash retention bonus paid in the fourth quarter of 2021 to eligible captains at our wholly-owned regional airlines included on the pilot seniority list as of September 1, 2021.

Nonoperating Results

	Year Ended D	December 31,	Increase	Percent Increase
	2021 2020		(Decrease)	(Decrease)
	(In mill	ions, except p	ercentage cha	anges)
Interest income	\$ 18	\$ 41	\$ (23)	(55.2)
Interest expense, net	(1,800)	(1,227)	(573)	46.8
Other income, net	293	154	139	89.6
Total nonoperating expense, net	<u>\$(1,489)</u>	\$(1,032)	\$(457)	44.4

Interest income decreased in 2021 compared to 2020 primarily as a result of lower returns on our short-term investments. Interest expense, net increased in 2021 compared to 2020 primarily due to the issuance of debt, including \$10.0 billion associated with the AAdvantage Financing, to improve our liquidity position in response to the COVID-19 pandemic. See Note 4 to AAG's Consolidated Financial Statements in Part II, Item 8A for further information on the AAdvantage Financing.

In 2021, other nonoperating income, net included \$337 million of non-service related pension and other postretirement benefit plan income, offset in part by \$60 million of net special charges principally for mark-to-market net unrealized losses associated with our equity investments in China Southern Airlines and Vertical and certain treasury rate lock derivative instruments and non-cash charges associated with debt refinancings and extinguishments.

In 2020, other nonoperating income, net included \$329 million of non-service related pension and other postretirement benefit plan income. This income was offset in part by \$170 million of net special charges principally for mark-to-market unrealized losses associated with our equity investment in China Southern Airlines and certain treasury rate lock derivative instruments and \$24 million of net foreign currency losses, primarily associated with losses from Latin American currencies.

Income Taxes

In 2021, we recorded an income tax benefit of \$555 million at an effective rate of approximately 22%, which was substantially non-cash. Substantially all of our loss before income taxes is attributable to the United States. At December 31, 2021, we had approximately \$17.2 billion of gross federal NOLs and

\$3.0 billion of other carryforwards available to reduce future federal taxable income, of which \$6.9 billion will expire beginning in 2024 if unused and \$13.3 billion can be carried forward indefinitely. We also had approximately \$6.0 billion of NOL carryforwards to reduce future state taxable income at December 31, 2021, which will expire in taxable years 2021 through 2041 if unused.

In 2020, we recorded an income tax benefit of \$2.6 billion at an effective rate of approximately 22%, which was substantially non-cash.

See Note 6 to AAG's Consolidated Financial Statements in Part II, Item 8A for additional information on income taxes.

American's Results of Operations

For a comparison of the 2020 to 2019 reporting periods, see Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – "American's Results of Operations" of American's 2020 Form 10-K.

Operating Revenues

	Year Ended I	December 31,		Percent	
	2021 2020		Increase	Increase	
	(In millio	ns, except per	entage chan	ges)	
Passenger	\$26,063	\$14,518	\$11,545	79.5	
Cargo	1,314	769	545	70.8	
Other	2,503	2,048	455	22.2	
Total operating revenues	\$29,880	\$17,335	\$12,545	72.4	

Passenger revenue increased \$11.5 billion, or 79.5%, in 2021 from 2020 primarily due to an increase in RPMs driven by a significant recovery in domestic and short-haul international leisure demand.

Cargo revenue increased \$545 million, or 70.8%, in 2021 from 2020 primarily due to an increase in cargo ton miles reflecting higher freight volumes as a result of adding international widebody capacity and the continuation of cargo-only flights, as well as an increase in cargo yield as a result of higher rates.

Other operating revenue increased \$455 million, or 22.2%, in 2021 from 2020 driven primarily by higher revenue associated with American's loyalty program.

Total operating revenues in 2021 increased \$12.5 billion, or 72.4%, from 2020 driven principally by the increase in passenger revenue as described above.

Operating Expenses

	Year Ended D	December 31,	Increase	Percent Increase
	2021 2020		(Decrease)	(Decrease)
	(In milli	ions, except pe	rcentage chan	ges)
Aircraft fuel and related taxes	\$ 6,792	\$ 3,402	\$ 3,390	99.6
Salaries, wages and benefits	11,811	11,224	587	5.2
Regional expenses	3,111	2,746	365	13.3
Maintenance, materials and repairs	1,979	1,585	394	24.8
Other rent and landing fees	2,619	2,004	615	30.7
Aircraft rent	1,425	1,341	84	6.2
Selling expenses	1,098	666	432	65.0
Depreciation and amortization	2,019	2,040	(21)	(1.1)
Mainline operating special items, net	(4,006)	(657)	(3,349)	nm
Other	3,993	3,208	785	24.5
Total operating expenses	\$30,841	\$27,559	\$ 3,282	11.9

Total operating expenses increased \$3.3 billion, or 11.9%, in 2021 from 2020 primarily due to increases in aircraft fuel and related taxes and other costs due to American's increased capacity, offset in part by a \$3.5 billion increase in net operating special credits and cost reduction actions as described above. See further discussion of operating special items, net below.

Aircraft fuel and related taxes increased \$3.4 billion, or 99.6%, in 2021 from 2020 primarily due to a 44.7% increase in fuel consumption as a result of increased capacity and a 37.9% increase in the average price per gallon of aircraft fuel including related taxes to \$2.04 in 2021 from \$1.48 in 2020.

Other rent and landing fees increased \$615 million, or 30.7%, in 2021 from 2020 primarily due to an increase in landing fees and variable rent as a result of American's increased capacity.

Aircraft rent increased \$84 million, or 6.2%, in 2021 from 2020 primarily due to the delivery of 25 new leased mainline aircraft in 2021.

Selling expenses increased \$432 million, or 65.0%, in 2021 from 2020 due to higher credit card fees and higher commission expense driven by the overall increase in revenues.

Depreciation and amortization decreased \$21 million, or 1.1%, in 2021 from 2020 primarily due to the early retirement of aircraft as a result of the COVID-19 pandemic, offset in part by a write down of excess spare parts inventory.

Operating Special Items, Net

	Year Ended December 31,		
	2021	2020	
	(In millions)		
PSP Financial Assistance (1)	\$(4,162)	\$(3,710)	
Severance expenses (2)	168	1,408	
Litigation reserve adjustments	(19)	_	
Mark-to-market adjustments on bankruptcy obligations, net (3)	(3)	(49)	
Fleet impairment (4)		1,484	
Labor contract expenses (5)	_	228	
Other operating special items, net	10	(18)	
Mainline operating special items, net	(4,006)	(657)	
PSP Financial Assistance (1)	(539)	(444)	
Fleet impairment (4)	27	106	
Regional operating special items, net	(512)	(338)	
Operating special items, net	\$(4,518)	\$ (995)	

- (1) The 2021 PSP Financial Assistance represents recognition of a portion of the financial assistance received from Treasury pursuant to the PSP2 and PSP3 Agreements. See Note 1(b) to American's Consolidated Financial Statements in Part II, Item 8B for further information. The 2020 PSP Financial Assistance represents recognition of a portion of the financial assistance received from Treasury pursuant to the PSP1 Agreement.
- (2) Severance expenses include salary and medical costs primarily associated with certain team members who opted into voluntary early retirement programs offered as a result of reductions to American's operation due to the COVID-19 pandemic. Cash payments primarily associated with American's voluntary early retirement programs were approximately \$520 million and \$365 million in 2021 and 2020, respectively.
- (3) Bankruptcy obligations that will be settled in shares of AAG common stock are marked-to-market based on AAG's stock price.
- (4) Fleet impairment charges resulted from the retirement of certain aircraft earlier than planned driven by the severe decline in air travel due to the COVID-19 pandemic. In 2021, American retired its remaining Embraer 140 fleet resulting in a non-cash write-down of these regional aircraft. See Note 1(g) to American's Consolidated Financial Statements in Part II, Item 8B for further information related to these charges.
 - In 2020, American retired its entire Airbus A330-200, Boeing 757, Boeing 767, Airbus A330-300 and Embraer 190 fleets as well as certain Embraer 140 and Bombardier CRJ200 aircraft resulting in a \$1.5 billion non-cash write-down of mainline and regional aircraft and associated spare parts and \$109 million in cash charges primarily for impairment of ROU assets and lease return costs.
- (5) The 2020 labor contract expenses primarily related to one-time charges due to the ratification of a new contract with the TWU-IAM Association for American's maintenance and fleet service team members, including signing bonuses and adjustments to vacation accruals resulting from pay rate increases.

Nonoperating Results

	Year Ended	December 31,	Increase	Percent Increase	
	2021 2020		(Decrease)	(Decrease)	
	(In mil	ercentage cha	anges)		
Interest income	\$ 34	\$ 337	\$(303)	(90.0)	
Interest expense, net	(1,642)	(1,171)	(471)	40.3	
Other income, net	292	155	137	87.7	
Total nonoperating expense, net	<u>\$(1,316)</u>	<u>\$ (679)</u>	\$(637)	94.0	

Interest income decreased in 2021 compared to 2020 primarily as a result of lower interest-bearing related party receivables from American's parent company, AAG and lower returns on American's short-term investments. Interest expense, net increased in 2021 compared to 2020 primarily due to the issuance of debt, including \$10.0 billion associated with the AAdvantage Financing, to improve American's liquidity position in response to the COVID-19 pandemic. See Note 3 to American's Consolidated Financial Statements in Part II, Item 8B for further information on the AAdvantage Financing.

In 2021, other nonoperating income, net included \$335 million of non-service related pension and other postretirement benefit plan income, offset in part by \$60 million of net special charges principally for mark-to-market net unrealized losses associated with American's equity investments in China Southern Airlines and Vertical and certain treasury rate lock derivative instruments and non-cash charges associated with debt refinancings and extinguishments.

In 2020, other nonoperating income, net included \$329 million of non-service related pension and other postretirement benefit plan income. This income was offset in part by \$170 million of net special charges principally for mark-to-market unrealized losses associated with American's equity investment in China Southern Airlines and certain treasury rate lock derivative instruments and \$24 million of net foreign currency losses, primarily associated with losses from Latin American currencies.

Income Taxes

American is a member of AAG's consolidated federal and certain state income tax returns.

In 2021, American recorded an income tax benefit of \$500 million at an effective rate of approximately 22%, which was substantially non-cash. Substantially all of American's loss before income taxes is attributable to the United States. At December 31, 2021, American had approximately \$17.1 billion of gross federal NOLs and \$2.4 billion of other carryforwards available to reduce future federal taxable income, of which \$7.3 billion will expire beginning in 2024 if unused and \$12.2 billion can be carried forward indefinitely. American also had approximately \$6.0 billion of NOL carryforwards to reduce future state taxable income at December 31, 2021, which will expire in taxable years 2021 through 2041 if unused.

In 2020, American recorded an income tax benefit of \$2.5 billion at an effective rate of approximately 22%, which was substantially non-cash.

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

At December 31, 2021, AAG had \$15.8 billion in total available liquidity and \$990 million in restricted cash and short-term investments. Additional detail regarding our available liquidity is provided in the table below (in millions):

	AA	AG .	American		
	Decem	ber 31,	December 31,		
	2021	2020	2021	2020	
Cash	\$ 273	\$ 245	\$ 265	\$ 231	
Short-term investments	12,158	6,619	12,155	6,617	
Undrawn facilities	3,411	7,396	3,411	7,396	
Total available liquidity	\$15,842	\$14,260	\$15,831	\$14,244	

Given the actions we have taken in response to the COVID-19 pandemic and our assumptions about its future impact on travel demand, which could be materially different due to the inherent uncertainties of the current operating environment, we expect to meet our cash obligations as well as remain in compliance with the debt covenants in our existing financing agreements for the next 12 months based on our current level of unrestricted cash and short-term investments, our anticipated access to liquidity (including via proceeds from financings) and projected cash flows from operations.

In the ordinary course of our business, we or our affiliates may, at any time and from time to time, seek to prepay, retire or repurchase our outstanding debt through cash purchases and/or exchanges for equity or debt, in open-market purchases, privately negotiated transactions or otherwise. Such repurchases, prepayments, retirements or exchanges, if any, will be conducted on such terms and at such prices as we may determine, and will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors. The amounts involved may be material.

Certain Covenants

Certain of our debt financing agreements (including our secured notes, term loans, revolving credit facilities and spare engine EETCs) contain loan to value (LTV), collateral coverage or peak debt service coverage ratio covenants and certain agreements require us to appraise the related collateral annually or semiannually. Pursuant to such agreements, if the applicable LTV, collateral coverage or peak debt service coverage ratio exceeds or falls below a specified threshold, as the case may be, we will be required, as applicable, to pledge additional qualifying collateral (which in some cases may include cash or investment securities), withhold additional cash in certain accounts, or to pay down such financing, in whole or in part, or the interest rate for the relevant financing will be increased. As of the most recent applicable measurement dates, we were in compliance with each of the foregoing LTV, collateral coverage and peak debt service coverage tests. Additionally, a significant portion of our debt financing agreements 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, and our AAdvantage Financing contains a peak debt service coverage ratio, pursuant to which failure to comply with a certain threshold may result in early repayment, in whole or in part, of the AAdvantage Financing. For further information regarding our debt covenants, see Note 4 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

For a comparison of the 2020 and 2019 reporting periods, see Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – "Sources and Uses of Cash" of our 2020 Form 10-K.

AAG

Operating Activities

Our net cash provided by operating activities was \$704 million in 2021 as compared to net cash used in operating activities of \$6.5 billion in 2020, a \$7.2 billion year-over-year increase. In 2021 and 2020, we received cash proceeds of approximately \$4.7 billion and \$4.2 billion associated with the PSP Financial Assistance, respectively. Excluding the PSP Financial Assistance, our operating cash flows increased \$6.7 billion compared to 2020 driven by a decrease in our pre-tax loss as well as working capital increases principally in our air traffic liability as demand for travel returned. In addition, during 2021, we made \$247 million in contributions to our pension plans and approximately \$520 million in cash payments associated with our voluntary early retirement programs. Excluding the enhanced healthcare benefits provided to eligible team members, we estimate cash payments under these programs to be approximately \$170 million in 2022 and approximately \$20 million in 2023 and beyond.

Investing Activities

Our net cash used in investing activities was \$6.0 billion and \$4.3 billion in 2021 and 2020, respectively.

Our principal investing activities in 2021 included \$5.5 billion in net purchases of short-term investments as well as a \$401 million increase in restricted short-term investments primarily related to collateral associated with the AAdvantage Financing and collateral held to support workers' compensation obligations. We had capital expenditures of \$208 million, net of aircraft purchase deposit returns of \$996 million, which expenditures principally related to the harmonization of interior configurations across the mainline fleet and the purchase of two Airbus A321neo aircraft. Additionally, we incurred \$204 million related to airport construction projects, net of reimbursements, principally in connection with the renovation and expansion of Terminal 8 at JFK and the modernization of Terminals 4 and 5 at LAX. These cash outflows were offset in part by \$193 million of proceeds from the sale of property and equipment principally related to our retired aircraft fleet and \$181 million of proceeds primarily from aircraft sale-leaseback transactions.

Our principal investing activities in 2020 included \$3.1 billion in net purchases of short-term investments, capital expenditures of \$2.0 billion for property and equipment, including 16 Airbus A321neo aircraft, eight Embraer 175 aircraft, three Bombardier CRJ900 aircraft and the harmonization of interior configurations across the mainline fleet as well as a \$308 million increase in restricted short-term investments primarily related to cash proceeds from special facility revenue bonds related to JFK. These cash outflows were offset in part by \$665 million of proceeds primarily from aircraft sale-leaseback transactions, \$351 million of proceeds from the sale of property and equipment and \$90 million of proceeds from a vendor.

Financing Activities

Our net cash provided by financing activities was \$5.3 billion and \$11.0 billion in 2021 and 2020, respectively.

Our principal financing activities in 2021 included \$12.2 billion in proceeds from the issuance of debt, including approximately \$10.0 billion associated with the AAdvantage Financing, \$1.0 billion in aggregate principal amount under the PSP2 Promissory Note, \$946 million in aggregate principal amount under the PSP3 Promissory Note and the \$150 million issuance of special facility revenue bonds related to JFK. We also received \$460 million in net proceeds from the issuance of equity pursuant to an at-the-market offering. These cash inflows were offset in part by \$7.3 billion in debt repayments, including prepayments totaling \$2.8 billion for our revolving credit facilities, \$950 million for the April 2016 Spare Parts Term Loan Facility and \$550 million of outstanding loans under the Treasury Loan Agreement and \$2.9 billion in scheduled debt repayments. In addition, we had \$209 million of deferred financing cost cash outflows.

Our principal financing activities in 2020 included \$11.8 billion in proceeds from the issuance of debt and \$3.0 billion in proceeds from the issuance of equity. These proceeds principally include \$2.8 billion borrowed under the 2014 Revolving Facility, the 2013 Revolving Facility and the April 2016 Revolving Facility, \$2.5 billion in aggregate principal amount of 11.75% senior secured notes, \$1.8 billion in aggregate principal amount under the PSP1 Promissory Note, \$1.2 billion in aggregate principal amount of two series of 10.75% senior secured notes due 2026, \$1.0 billion in aggregate principal amount of AAG's 6.50% convertible senior notes, \$1.0 billion under the Delayed Draw Term Loan Credit Facility, \$600 million in connection with the issuance of equipment notes related to EETCs and the financing of certain aircraft, \$550 million under the Treasury Term Loan Facility, \$500 million in aggregate principal amount of 3.75% unsecured senior notes due 2025 and the \$360 million issuance of special facility revenue bonds as well as \$1.7 billion of net proceeds from two underwritten public offerings of common stock and \$869 million of net proceeds from an at-the-market offering of common stock. These cash inflows were offset in part by \$3.5 billion in debt repayments, consisting of approximately \$2.5 billion in scheduled debt repayments, including repayment of \$500 million of 4.625% senior notes, and the prepayment of the \$1.0 billion Delayed Draw Term Loan Credit Facility, as well as \$216 million in share repurchases and dividend payments (which occurred in the first quarter of 2020).

American

Operating Activities

American's net cash provided by operating activities was \$3.2 billion in 2021 as compared to net cash used in operating activities of \$1.4 billion in 2020, a \$4.6 billion year-over-year increase. In 2021 and 2020, American received cash proceeds of approximately \$4.2 billion and \$3.7 billion associated with the PSP Financial Assistance, respectively. American also had a \$2.3 billion net decrease in intercompany cash receipts principally from AAG's financing transactions. Excluding the PSP Financial Assistance and decrease in AAG's financing transactions, American's operating cash flows increased \$6.4 billion compared to 2020 driven by a decrease in its pre-tax loss as well as working capital increases principally in American's air traffic liability as demand for travel returned. In addition, during 2021, American made \$247 million in contributions to its pension plans and approximately \$520 million in cash payments associated with American's voluntary early retirement programs. Excluding the enhanced healthcare benefits provided to eligible team members, American estimates cash payments under these programs to be approximately \$170 million in 2022 and approximately \$20 million in 2023 and beyond.

Investing Activities

American's net cash used in investing activities was \$5.9 billion and \$4.3 billion in 2021 and 2020, respectively.

American's principal investing activities in 2021 included \$5.5 billion in net purchases of short-term investments as well as a \$401 million increase in restricted short-term investments primarily related to collateral associated with the AAdvantage Financing and collateral held to support workers'

compensation obligations. American had capital expenditures of \$169 million, net of aircraft purchase deposit returns of \$996 million, which expenditures principally related to the harmonization of interior configurations across the mainline fleet and the purchase of two Airbus A321neo aircraft. Additionally, American incurred \$204 million related to airport construction projects, net of reimbursements, principally in connection with the renovation and expansion of Terminal 8 at JFK and the modernization of Terminals 4 and 5 at LAX. These cash outflows were offset in part by \$192 million of proceeds from the sale of property and equipment principally related to American's retired aircraft fleet and \$181 million of proceeds primarily from aircraft sale-leaseback transactions.

American's principal investing activities in 2020 included \$3.1 billion in net purchases of short-term investments, capital expenditures of \$1.9 billion for property and equipment, including 16 Airbus A321neo aircraft, eight Embraer 175 aircraft, three Bombardier CRJ900 aircraft and the harmonization of interior configurations across the mainline fleet as well as a \$308 million increase in restricted short-term investments primarily related to cash proceeds from special facility revenue bonds related to JFK. These cash outflows were offset in part by \$665 million of proceeds primarily from aircraft sale-leaseback transactions, \$351 million of proceeds from the sale of property and equipment and \$90 million of proceeds from a vendor.

Financing Activities

American's net cash provided by financing activities was \$2.8 billion and \$5.8 billion in 2021 and 2020, respectively.

American's principal financing activities in 2021 included \$10.2 billion in proceeds from the issuance of debt, including approximately \$10.0 billion associated with the AAdvantage Financing and the \$150 million issuance of special facility revenue bonds related to JFK. These cash inflows were offset in part by \$7.3 billion in debt repayments, including prepayments totaling \$2.8 billion for American's revolving credit facilities, \$950 million for the April 2016 Spare Parts Term Loan Facility and \$550 million of outstanding loans under the Treasury Loan Agreement and \$2.9 billion in scheduled debt repayments. In addition, American had \$207 million of deferred financing cost cash outflows.

American's principal financing activities in 2020 included \$9.0 billion in proceeds from the issuance of debt, including \$2.8 billion borrowed under the 2014 Revolving Facility, the 2013 Revolving Facility and the April 2016 Revolving Facility, \$2.5 billion in aggregate principal amount of 11.75% senior secured notes, \$1.2 billion in aggregate principal amount of two series of 10.75% senior secured notes due 2026, \$1.0 billion under the Delayed Draw Term Loan Credit Facility, \$600 million in connection with the issuance of equipment notes related to EETCs and the financing of certain aircraft, \$550 million under the Treasury Term Loan Facility and the \$360 million issuance of special facility revenue bonds. These cash inflows were offset in part by \$3.0 billion in debt repayments, consisting of approximately \$2.0 billion in scheduled debt repayments and the prepayment of the \$1.0 billion Delayed Draw Term Loan Credit Facility.

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 4	Note 3
Leases	Note 5	Note 4
Employee benefit plans	Note 9	Note 8
Commitments, contingencies and guarantees	Note 11	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.

Pass-Through Trusts

American currently has 344 owned aircraft, 11 leased aircraft and 60 owned spare aircraft engines, which in each case 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 or to permit issuance of debt backed by existing flight equipment. In the case of aircraft EETCs, 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. Similarly, in the case of the spare engine EETCs, the trusts allow American to use its existing pool of spare engines to raise financing under a single facility. 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 or spare engines scheduled to be delivered, financed or refinanced upon the issuance of the EETC or within a specific period of time thereafter. At the time of each covered aircraft or spare engine 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 or engines. The equipment notes are issued, at American's election, in connection with a mortgage financing of the aircraft or spare engines 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 or engines, as applicable. 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, 2021, \$9.4 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; however, American concluded it is not the primary beneficiary under these leasing arrangements and 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 \$20 million as of December 31, 2021, which are reflected in the operating lease obligations in Note 5 to AAG's Consolidated Financial Statements in Part II, Item 8A and Note 4 to American's Consolidated Financial Statements in Part II, Item 8B.

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, 2021, we had \$439 million of letters of credit and surety bonds securing various obligations, of which \$94 million is collateralized with our restricted cash. The letters of credit and surety bonds that are subject to expiration will expire on various dates through 2025.

Contractual Obligations

The following table provides details of our material cash requirements from known contractual obligations as of December 31, 2021 (in millions). Except to the extent set forth in the applicable accompanying footnotes, 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		
_	2022	2023	2024	2025	2026	2027 and Thereafter	Total
American ^(a)							
Long-term debt: Principal amount (b), (d) (See Note 3) \$ Interest obligations (c), (d)	1,637 \$ 1,544 215	4,167 \$ 1,537 183	3,467 \$ 1,373 180	7,749 1,180 113	618		\$31,785 7,014 855
(e) (See Note 10(a))	1,987	1,851	3,358	3,535	1,663	688	13,082
(See Note 4)	1,957	1,899	1,576	1,210	936	4,684	12,262
(See Note 10(b))	1,495	1,834	1,875	1,729	1,123	2,317	10,373
(See Note 8)	_	31	23	_	_	_	54
benefits (See Note 8) Other purchase obligations (h) (See	94	89	84	81	78	312	738
Note 10(a))	4,364	1,758	1,416	154	610	942	9,244
Total American Contractual Obligations	13,293\$	13,349\$	13,352\$	15,751	\$9,527	\$20,135	\$85,407
AAG Parent and Other AAG Subsidiaries (a) Long-term debt:							
Principal amount (b) (See Note 4)\$	750\$	—\$	—\$	1,500	\$ —	\$ 3,746	\$ 5,996
Interest obligations (c)	140	121	121	133	125	649	1,289
(See Note 5)	16	14	12	7	5	14	68
(See Note 9)		1	_	_		1	2
Total AAG Contractual Obligations\$	14,199	13,485	13,485 \$	17,391	\$9,657	\$24,545	\$92,762

⁽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 \$428 million and \$30 million of unamortized debt discount, premium and issuance costs as of December 31, 2021 for American and AAG Parent, respectively.

- (c) For variable-rate debt, future interest obligations are estimated using the current forward rates at December 31, 2021.
- (d) Includes \$9.4 billion of future principal payments and \$1.5 billion of future interest payments as of December 31, 2021, related to EETCs associated with mortgage financings of certain aircraft and spare engines.
- (e) See Part I, Item 2. Properties "Aircraft and Engine Purchase Commitments" for additional information about the firm commitment aircraft delivery schedule, in particular the footnote to the table thereunder as to potential changes to such delivery schedule. Due to uncertainty surrounding the timing of delivery of certain aircraft, the amounts in the table represent our most current estimate; however, the actual delivery schedule may differ from the table above, potentially materially. Additionally, the amounts in the table exclude 10 and three Boeing 787-8 aircraft scheduled to be delivered in 2022 and 2023, respectively, as well as four and one Boeing 787-9 aircraft scheduled to be delivered in 2023 and 2024, respectively, in each case, for which we have obtained committed lease financing. This financing is reflected in the operating lease commitments line above.
- (f) 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 are reflected in the operating lease commitments line above.
- (9) Represents minimum pension contributions based on actuarially determined estimates as of December 31, 2021 and is based on estimated payments through 2031. On March 11, 2021, the ARP was enacted, which included funding relief provisions benefiting single employer qualified retirement benefit pension plans such as those sponsored by American.
- (h) Includes purchase commitments for aircraft fuel, flight equipment maintenance, construction projects and information technology support.

Capital Raising Activity and Other Possible Actions

In light of the cash needs imposed by the current operating losses due to reduced demand in response to the COVID-19 pandemic as well as our significant financial commitments related to, among other things, the servicing and amortization of existing debt and equipment leasing arrangements, new flight equipment and pension funding obligations, we and our subsidiaries will regularly consider, and enter into negotiations related to, capital raising and liability management activity, which may include the entry into leasing transactions and future issuances of, and transactions designed to manage the timing and amount of, secured or unsecured debt obligations or additional equity securities in public or private offerings or otherwise. The cash available from operations (if any) and these sources, however, may not be sufficient to cover our cash 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 (in particular the ongoing global outbreak of COVID-19), natural disasters or other causes could reduce the demand for air travel, which would reduce the amount of cash generated by operations. See Part I, Item 1A. Risk Factors - "The outbreak and global spread of COVID-19 has resulted in a severe decline in demand for air travel which has adversely impacted our business, operating results, financial condition and liquidity. The duration and severity of the COVID-19 pandemic, and similar public health threats that we may face in the future, could result in additional adverse effects on our business, operating results, financial condition and liquidity" for additional discussion. 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, 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 or similar liquidity 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 4 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, lease and other 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.

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 each of AAG's and American's Consolidated Financial Statements in Part II, Item 8A and 8B, respectively, 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 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 unused 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. While the contract duration of passenger tickets is generally one year, in response to the COVID-19 pandemic, we extended the contract duration for certain tickets to March 31, 2022, principally those tickets which were scheduled to expire from March 1, 2020 through March 31, 2021. Additionally, tickets to certain international destinations have extended contract duration to December 31, 2022. We also have eliminated change fees for most domestic and international tickets providing more flexibility for customers to change travel plans. Given these changes and the uncertainty surrounding the future demand for air travel, our estimates of revenue that will be recognized from the air traffic liability for future flown or unused tickets as well as our estimates of refunds may be subject to variability and differ from historical experience.

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 **one**world airline or other partner airlines, or by using the services of other program participants, such as our co-branded credit cards, and certain 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 response to the COVID-19 pandemic, we suspended the expiration of mileage credits through March 31, 2022 and eliminated mileage reinstatement fees for canceled award tickets.

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 mileage credits that will not be redeemed using a statistical model based on historical redemption patterns to develop an estimate of the likelihood of future redemption. Given the inherent uncertainty of the current operating environment due to the COVID-19 pandemic, we will continue to monitor redemption patterns and may adjust our estimates in the future. For the year ended December 31, 2021, a hypothetical 10% increase in the estimated selling price of miles would have decreased revenues by approximately \$55 million as a result of additional amounts deferred from passenger ticket sales to be recognized in future periods.

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 five 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. 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 use a statistical model based on historical redemption patterns to develop an estimate of the likelihood of future redemption. For the year ended December 31, 2021, a hypothetical 10% increase in our estimate of miles not expected to be redeemed would have increased revenues by approximately \$70 million.

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 on 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 and (2) expected return on plan assets (as discussed below). These assumptions as of December 31 were:

	2021	2020
Pension weighted average discount rate (1)	3.0%	2.7%
Retiree medical and other postretirement benefits weighted average discount rate (1)	2.8%	2.4%
Expected rate of return on plan assets (2)	8.0%	8.0%

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, 2021 would increase our pension and retiree medical and other postretirement benefits obligations by approximately \$1.2 billion and \$40 million, respectively, and decrease estimated 2022 pension and retiree medical and other postretirement benefits expense by approximately \$10 million and \$1 million, respectively.

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% fixed income securities, 24% U.S. stocks, 22% alternative (private) investments, 16% developed international stocks 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, 2021 would increase estimated 2022 pension expense and retiree medical and other postretirement benefits expense by approximately \$70 million and \$1 million, respectively.

During 2021, we reviewed and revised certain economic and demographic assumptions including the pension and retiree medical and other postretirement benefits discount rates and health care cost trend rates. The net effect of changing these assumptions for the pension plans resulted in a decrease of \$720 million in the projected benefit obligation at December 31, 2021. The net effect of changing these assumptions for retiree medical and other postretirement benefits plans resulted in a decrease of \$32 million in the accumulated postretirement benefit obligation at December 31, 2021. We also revised our mortality assumptions to incorporate the new improvement scale issued by the Society of Actuaries. This resulted in an increase in our pension and retiree medical and other postretirement benefit obligations by \$57 million and less than \$1 million, respectively.

See Note 9 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.

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.

Our ability to use our NOLs and other carryforwards depends on the amount of taxable income generated in future periods. 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. 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 availability and price volatility of aircraft fuel and travel demand.

We presently have a \$34 million valuation allowance on certain net deferred tax assets related to state NOL carryforwards. There can be no assurance that an additional valuation allowance on our net deferred tax assets will not be required. Such valuation allowance could be material.

Recent Accounting Pronouncements

Accounting Standards Update (ASU) 2020-06: Accounting for Convertible Instruments and Contracts In An Entity's Own Equity (the New Convertible Debt Standard)

The New Convertible Debt Standard simplifies the accounting for certain convertible instruments by removing the separation models for convertible debt with a cash conversion feature and for convertible instruments with a beneficial conversion feature. As a result, more convertible debt instruments will be reported as a single liability instrument with no separate accounting for embedded conversion features. Additionally, the New Convertible Debt Standard amends the diluted earnings per share calculation for convertible instruments by requiring the use of the if-converted method. The treasury stock method is no longer available. Entities may adopt the New Convertible Debt Standard using either a full or modified retrospective approach, and it is effective for interim and annual reporting periods beginning after December 15, 2021. Early adoption is permitted for interim and annual reporting periods beginning after December 15, 2020. The New Convertible Debt Standard is applicable to our 6.50% convertible senior notes due 2025 (the Convertible Notes). We early adopted the New Convertible Debt Standard as of January 1, 2021 using the modified retrospective method to recognize the Convertible Notes as a single liability instrument. As of January 1, 2021, we recorded a \$415 million

(\$320 million net of tax) reduction to additional paid-in capital to remove the equity component of the Convertible Notes from our consolidated balance sheet and a \$19 million cumulative effect adjustment credit, net of tax, to retained deficit related to non-cash debt discount amortization recognized in periods prior to adoption resulting in a corresponding reduction of \$389 million to the debt discount associated with the Convertible Notes. See Note 4(h) to AAG's Consolidated Financial Statements in Part II, Item 8A for additional information on the Convertible Notes.

ASU 2019-12: Simplifying the Accounting for Income Taxes (Topic 740)

This standard simplifies the accounting and disclosure requirements for income taxes by clarifying the existing guidance to improve consistency in the application of Accounting Standards Codification 740. This standard also removed the requirement to calculate income tax expense for the stand-alone financial statements of wholly-owned subsidiaries that are not subject to income tax. We adopted this standard effective January 1, 2021, and it did not have a material impact on our consolidated financial statements.

ASU 2021-10: Disclosures by Business Entities about Government Assistance (Topic 832)

This standard provides guidance on the disclosure requirements for business entities receiving government assistance. Specifically, entities are required to disclose information about the nature of the assistance received, including the related accounting, the affected line items on the financial statements and amounts, and the significant terms and conditions, including any commitments and contingencies. This standard is effective for annual periods beginning after December 15, 2021, and early adoption is permitted. We adopted this standard as of December 31, 2021. See Note 1(b) in each of AAG's and American's Consolidated Financial Statements in Part II, Items 8A and 8B, respectively, for disclosure related to the financial assistance we have received from Treasury.

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 7 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 business, even a relatively small increase or decrease in the price of aircraft fuel can have a material effect on our operating results and liquidity. Market prices for aircraft fuel can be volatile, with market spot prices ranging from a low of approximately \$0.37 per gallon to a high of approximately \$2.35 per gallon during the period from January 1, 2019 to December 31, 2021.

As of December 31, 2021, we did not have any fuel hedging contracts outstanding to hedge our fuel consumption. 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. 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. Based on our 2022 forecasted fuel consumption, we estimate that a one cent per gallon increase in the price of aircraft fuel would increase our 2022 annual fuel expense by approximately \$40 million.

Foreign Currency

We are exposed to the effect of foreign exchange rate fluctuations on the U.S. dollar value of foreign currency-denominated transactions. Our largest exposure comes from the British pound sterling, Euro, Chinese yuan, Canadian dollar and various Latin American currencies, primarily the Brazilian real. We do not currently have a foreign currency hedge program. We estimate a uniform 10% strengthening in the value of the U.S. dollar from 2021 levels relative to each of the currencies in which we have foreign currency exposure would have resulted in an increase in pre-tax loss of approximately \$90 million for the year ended December 31, 2021.

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 30% of our total long-term debt at December 31, 2021. We currently do not have an interest rate hedge program to hedge our exposure to floating interest rates on our variable-rate debt obligations. If annual interest rates increase 100 basis points, based on our December 31, 2021 variable-rate debt and short-term investments balances, annual interest expense on variable-rate debt would increase by approximately \$109 million and annual interest income on short-term investments would increase by approximately \$124 million. Additionally, the fair value of fixed-rate debt would have decreased by approximately \$1.1 billion for AAG and \$860 million for American.

On July 27, 2017, the U.K. 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. The discontinuation date for submission and publication of rates for certain tenors of USD LIBOR (1-month, 3-month, 6-month, and 12-month) was subsequently extended by the ICE Benchmark Administration (the administrator of LIBOR) until June 30, 2023. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2023. Similarly, it is not possible to predict whether LIBOR will continue to be viewed as an acceptable market benchmark, what rate or rates may become acceptable alternatives to LIBOR, or what effect these changes in views or alternatives may have on financial markets for LIBOR-linked financial instruments. While the U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, has chosen SOFR as the recommended risk-free reference rate for the U.S. (calculated based on repurchase agreements backed by treasury securities), we cannot currently predict the extent to which this index will gain widespread acceptance as a replacement for LIBOR. 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.

We may in the future pursue amendments to our LIBOR-based debt transactions to provide for a transaction mechanism or other reference rate in anticipation of LIBOR's discontinuation, but we may not be able to reach agreement with our lenders on any such amendments. As of December 31, 2021, we had \$10.9 billion of borrowings based on LIBOR. The replacement of LIBOR with a comparable or successor rate could cause the amount of interest payable on our long-term debt to be different or higher than expected.

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, 2021 and 2020, the related consolidated statements of operations, comprehensive income (loss), cash flows, and stockholders' equity (deficit), for each of the years in the three-year period ended December 31, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, 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, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 22, 2022 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

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.

Critical Audit Matters

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

financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Estimate of mileage credits not expected to be redeemed

As discussed in Note 1(I) to the consolidated financial statements, the Company's loyalty program awards mileage credits to passengers for flights on the Company's airline, flights on a partner airline, or for using the services of other program participants. The Company uses a statistical model based on historical redemption patterns to develop an estimate of mileage credits not expected to be redeemed. The associated value of mileage credits not expected to be redeemed is recognized as revenue proportionally as the remaining mileage credits are redeemed. The Company's loyalty program liability was \$9.1 billion as of December 31, 2021 and the associated passenger revenue for mileage credits redeemed for travel was \$2.2 billion for the year ended December 31, 2021.

We identified the evaluation of the estimation of mileage credits not expected to be redeemed as a critical audit matter. Evaluating the application of the statistical model used to develop the estimate involved complex auditor judgment and the use of actuarial professionals with specialized skills and knowledge.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's loyalty program accounting process, including a control related to the evaluation of the application of the statistical model used to develop the estimate of mileage credits not expected to be redeemed. We involved actuarial professionals with specialized skills and knowledge, who assisted in developing a statistical model to derive an independent expectation of mileage credits not expected to be redeemed. We compared this independent expectation to the Company's estimate to evaluate the appropriateness of the amount of the loyalty program liability and associated passenger revenue.

Sufficiency of audit evidence over realizability of tax operating loss and other carryforwards

As discussed in Notes 1(i) and 6 to the consolidated financial statements, the Company had \$4.6 billion of tax operating loss and other carryforwards, which are recorded as deferred tax assets at December 31, 2021. Deferred tax assets are recognized related to tax operating loss and other carryforwards that will reduce future taxable income. The Company provides a valuation allowance for deferred tax assets when it is more likely than not that some portion, or all of the deferred tax assets, will not be realized. In evaluating the need for a valuation allowance, management considers the weighting of all available positive and negative evidence.

We identified the evaluation of the sufficiency of audit evidence over the realizability of tax operating loss and other carryforwards as a critical audit matter. Evaluating the sufficiency of audit evidence required subjective auditor judgment in order to assess the extent of procedures performed in assessing the realizability of the tax operating loss and other carryforwards.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's deferred tax asset valuation allowance process, including controls related to the realizability of tax operating loss and other carryforwards. We evaluated positive and negative evidence used in assessing whether the tax operating loss and other carryforwards were more likely than not to be realized in the future. We evaluated the reasonableness of management's projections of future profitability considering historical profitability of the Company, and consistency with industry data and economic trends. We involved tax professionals with specialized skills and knowledge, who

assisted in evaluating the application of tax law. We assessed the sufficiency of audit evidence obtained over the realizability of the tax operating loss and other carryforwards by evaluating the cumulative results of the audit procedures.

/s/ KPMG LLP

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

Dallas, Texas February 22, 2022

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

	Year E	er 31,	
	2021	2020	2019
Operating revenues:			
Passenger	\$ 26,063	\$ 14,518	\$ 42,010
Cargo	1,314	769	863
Other	2,505	2,050	2,895
Total operating revenues	29,882	17,337	45,768
Operating expenses:			
Aircraft fuel and related taxes	6,792	3,402	9,395
Salaries, wages and benefits	11,817	11,229	12,895
Regional expenses	3,204	2,962	3,985
Maintenance, materials and repairs	1,979	1,585	2,381
Other rent and landing fees	2,619	2,004	2,672
Aircraft rent	1,425	1,341	1,326
Selling expenses	1,098	666	2,004
Depreciation and amortization	2,019	2,040	1,982
Special items, net	(4,006)	(657)	635
Other	3,994	3,186	5,428
Total operating expenses	30,941	27,758	42,703
Operating income (loss)	(1,059)	(10,421)	3,065
Interest income	18	41	127
Interest expense, net	(1,800)	(1,227)	(1,095)
Other income, net	293	154	159
Total nonoperating expense, net	(1,489)	(1,032)	(809)
Income (loss) before income taxes	(2,548)	(11,453)	2,256
Income tax provision (benefit)	(555)	(2,568)	570
Net income (loss)	\$ (1,993)	\$ (8,885)	\$ 1,686
Earnings (loss) per common share:			
Basic	\$ (3.09)	\$ (18.36)	\$ 3.80
Diluted	\$ (3.09)	. (
Weighted average shares outstanding (in thousands):	. (/	. (/	
Basic	644,015	483,888	443,363
Diluted	644,015	483,888	444,269
Cash dividends declared per common share	\$	\$ 0.10	\$ 0.40
-			

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

	Year Ended December 31,		
	2021	2020	2019
Net income (loss)	\$(1,993)	\$(8,885)	\$1,686
Other comprehensive income (loss), net of tax:			
Pension, retiree medical and other postretirement benefits	1,161	(772)	(438)
Investments			3
Total other comprehensive income (loss), net of tax	1,161	(772)	(435)
Total comprehensive income (loss)	\$ (832)	<u>\$(9,657)</u>	\$1,251

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

	Decem	ber 31,
	2021	2020
ASSETS		
Current assets Cash Short-term investments Restricted cash and short-term investments Accounts receivable, net Aircraft fuel, spare parts and supplies, net Prepaid expenses and other	\$ 273 12,158 990 1,505 1,795 615	\$ 245 6,619 609 1,342 1,614 666
Total current assets Operating property and equipment Flight equipment Ground property and equipment Equipment purchase deposits	17,336 37,856 9,335 517	11,095 37,816 9,194 1,446
Total property and equipment, at cost	47,708 (18,171)	48,456 (16,757)
Total property and equipment, net Operating lease right-of-use assets Other assets	29,537 7,850	31,699 8,039
Goodwill Intangibles, net of accumulated amortization of \$786 and \$745, respectively Deferred tax asset Other assets	4,091 1,988 3,556 2,109	4,091 2,029 3,239 1,816
Total other assets	11,744	11,175
Total assets	\$ 66,467	\$ 62,008
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT) Current liabilities Current maturities of long-term debt and finance leases Accounts payable Accrued salaries and wages	\$ 2,489 1,772 1,489	\$ 2,797 1,196 1,716
Air traffic liability Loyalty program liability Operating lease liabilities Other accrued liabilities	6,087 2,896 1,507 2,766	4,757 2,033 1,651 2,419
Total current liabilities	19,006	16,569
Long-term debt and finance leases, net of current maturities Pension and postretirement benefits Loyalty program liability Operating lease liabilities Other liabilities	35,571 5,053 6,239 6,610 1,328	29,796 7,069 7,162 6,777 1,502
Total noncurrent liabilities	54,801	52,306
outstanding at December 31, 2020	7,234 (5,942) (8,638)	6,894 (7,103) (6,664)
Total stockholders' deficit	(7,340)	(6,867)
Total liabilities and stockholders' equity (deficit)	\$ 66,467	\$ 62,008

See accompanying notes to consolidated financial statements.

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

	Year En	ded Decemb	er 31,
	2021	2020	2019
Cash flows from operating activities:	\$ (1,993)	\$ (8.885)	\$ 1 686
Net income (loss)	ψ (1,000)	ψ (0,000)	Ψ 1,000
(used in) operating activities: Depreciation and amortization	2,335	2,370	2,318
Net gains from sale of property and equipment and sale-leaseback transactions	(22)	(95)	(112)
Special items, net non-cash	`83`	1.599	`376`
Pension and postretirement	(321) (555)	(319) (2,568)	(178) 560
Share-based compensation	98° 38	91 47	94 (62)
Other, net			. ,
Decrease (increase) in accounts receivable Increase in other assets Increase (decrease) in accounts payable and accrued liabilities	(304) (402)	538 (38)	73 (373)
Increase (decrease) in accounts payable and accrued liabilities Increase (decrease) in air traffic liability	461 1,454	(626) (51)	`327´ 469
Increase (decrease) in air traffic liability	(60)	580´	76
Contributions to pension plans	(247) 139	(9) 823	(1,230) (209)
Net cash provided by (used in) operating activities	704	(6,543)	3,815
Capital expenditures, net of aircraft purchase deposit returns	(208)	(1,958)	(4,268)
Airport construction projects, net of reimbursements	(204) 193	` (173) 351	(98) 54
Proceeds from sale-leaseback transactions Purchases of short-term investments	181 (19,454)	665	850
Sales of short-term investments	`13,923´	(5,873) 2,803	(3,184) 4,144
Increase in restricted short-term investments	(401) (28)	(308)	(3)
Purchase of equity investment Proceeds on sale of equity investment Proceeds from vendor	5	41 90	250
Other investing activities	10	20	12
Net cash used in investing activities	(5,983)	(4,342)	(2,243)
Cash flows from financing activities: Proceeds from issuance of long-term debt	12,190	11,780	3,960
Payments on long-term debt and finance leases	(7,343) 460	(3,535) 2,970	(4,190)
Deferred financing costs	(209)	(93)	(61)
to employee stock plans	(18)	(173)	(1,097)
Dividend payments	208	(43) 88	(178)
Net cash provided by (used in) financing activities	5,288	10,994	(1,568)
Net increase in cash and restricted cash	399	109 290	4 286
Cash and restricted cash at end of year (a)		\$ 399	\$ 290
(a) The following table provides a reconciliation of cash and restrict within the consolidated balance sheets:	ed cash to	amounts	reported
Cash	. \$ 273	\$ 245	\$ 280
Cash		154	10
Total cash and restricted cash	. \$ 408	\$ 399	\$ 290

See accompanying notes to consolidated financial statements.

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

	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Retained Earnings (Deficit)	Total
Balance at December 31, 2018	\$ 5	\$ 4,964	\$(5,896)	\$ 758 1,686	\$ (169) 1,686
Other comprehensive loss, net	_	_	(435)	-	(435)
pursuant to employee stock plans net of shares withheld for cash taxes	_	(25)	_	_	(25)
common stock	(1)	(1,095)	_	_	(1,096)
share)	_	_	_	(180)	(180)
Claims Reserve (DCR) Share-based compensation expense		7 94	_	_	7 94
			(6,331)	2,264	
Balance at December 31, 2019		3,945	(0,331)	(8,885)	(118) (8,885)
Other comprehensive loss, net	_		(772)		(772)
Issuance of PSP1 Warrants (see Note 1(b))	_	63		_	63
Issuance of Treasury Loan Warrants (see Note 1(b)) Issuance of 1,603,554 shares of AAG common stock pursuant to employee stock plans net of shares withheld	_	25	_	_	25
for cash taxes	_	(15)	_	_	(15)
Issuance of 129,490,000 shares of AAG common stock pursuant to public stock offerings, net of offering costs Issuance of 68,561,487 shares of AAG common stock pursuant to an at-the-market offering, net of offering	1	1,686	_	_	1,687
costs	1	868	_	_	869
Equity component of convertible debt issued, net of tax and offering costs	_	320	_	_	320
common stock	_	(145)	_	_	(145)
share)			_	(43)	(43)
Settlement of single-dip unsecured claims held in DCR		56 91	_	_	56 91
Share-based compensation expense			(7.400)	(0.004)	
Balance at December 31, 2020		6,894	(7,103)	(6,664) (1,993)	
Other comprehensive income, net Issuance of 24,150,764 shares of AAG common stock pursuant to an at-the-market offering, net of offering	_	_	1,161	(1,555) —	1,161
costs	_	460	_	_	460
2020-06 related to convertible instruments (see Note 1(c)) Issuance of PSP2 and PSP3 Warrants (see Note 1(b)) Issuance of 2,357,187 shares of AAG common stock	_	(320) 121	_	19 —	(301) 121
pursuant to employee stock plans net of shares withheld for cash taxes	_	(18)	_	_	(18)
retirement of 259,878 shares of AAG common stock Share-based compensation expense	_	(1) 98	_	_	(1) 98
Balance at December 31, 2021	\$ 6	\$ 7,234	\$(5,942)	\$(8,638)	\$(7,340)

See accompanying notes to consolidated financial statements.

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., PSA Airlines, Inc. and Piedmont Airlines, Inc., 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, the loyalty program, deferred tax assets, as well as pension and retiree medical and other postretirement benefits. Certain prior period amounts have been reclassified to conform to the current year presentation. See (r) Regional Expenses below for further information.

(b) Impact of Coronavirus (COVID-19)

COVID-19 has been declared a global health pandemic by the World Health Organization. COVID-19 has surfaced in nearly all regions of the world, which has driven the implementation of significant, government-imposed measures to prevent or reduce its spread, including travel restrictions, testing regimes, closing of borders, "stay at home" orders and business closures. Ongoing global vaccination efforts and the corresponding lifting of government restrictions in and between many markets resulted in a partial recovery in demand for air travel in 2021, which improved our revenues as compared to 2020. However, the return of demand was weaker than previous expectations and the speed and strength of this recovery remain uncertain, primarily due to the global rise in COVID-19 cases associated with the delta and omicron variants and the potential for continuation or reimposition of restrictions on global travel. The continued impact of the COVID-19 pandemic, including any increases in infection rates, new variants and renewed governmental action to slow the spread of COVID-19 cannot be estimated.

We have taken aggressive actions since the beginning of the COVID-19 pandemic to mitigate its effects on our business, including capacity reductions, structural changes to our fleet, cost reductions including implementing voluntary leave and early retirement programs, and steps to preserve cash and improve our overall liquidity position, consistent with the terms of the financial assistance we have received from the U.S. Government under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Subtitle A of Title IV of Division N of the Consolidated Appropriations Act, 2021 (PSP Extension Law) and Section 7301 of the American Rescue Plan Act of 2021 (the ARP).

Capacity Reductions

Our capacity (as measured by available seat miles) continues to be reduced compared to pre-COVID-19 pandemic levels, with total capacity in 2021 down 24.7% as compared to 2019. Domestic capacity in 2021 was down 14.5% while international capacity was down 44.9% as compared to 2019.

While demand for domestic and short-haul international markets has largely recovered to 2019 levels, uncertainty remains regarding the timing of a full recovery. We will continue to match our forward capacity with observed booking trends for future travel and make further adjustments to our capacity as needed.

Cost Reductions

We have reduced our 2021 operating expenditures as a result of permanent non-volume cost reductions and other efficiency measures. These reductions include labor productivity enhancements, management salaries and benefits and other permanent cost reductions. Also, during the first quarter of 2021, approximately 1,600 represented team members opted into a voluntary early retirement program.

Liquidity

As of December 31, 2021, we had \$15.8 billion in total available liquidity, consisting of \$12.4 billion in unrestricted cash and short-term investments, \$2.8 billion in undrawn capacity under revolving credit facilities and a total of \$568 million in undrawn short-term revolving and other facilities.

During 2021, we completed the following financing transactions (see Note 4 for further information):

- issued \$3.5 billion in aggregate principal amount of 5.50% Senior Secured Notes due 2026 and \$3.0 billion in aggregate principal amount of 5.75% Senior Secured Notes due 2029 and entered into the \$3.5 billion AAdvantage Term Loan Facility of which the full amount of term loans was drawn at closing;
- repaid in full \$750 million under the 2013 Revolving Facility, \$1.6 billion under the 2014 Revolving Facility and \$450 million under the April 2016 Revolving Facility, all of which was borrowed in the second quarter of 2020 in response to the COVID-19 pandemic;
- repaid the \$550 million of outstanding loans under, and terminated, the \$7.5 billion secured term loan facility with the U.S. Department of the Treasury (Treasury) (the Treasury Loan Agreement);
- issued 24.2 million shares of AAG common stock at an average price of \$19.26 per share pursuant to an at-the-market offering for net proceeds of \$460 million (approximately \$650 million of at-the-market authorization remains available at December 31, 2021);
- issued approximately \$150 million in special facility revenue bonds related to John F. Kennedy International Airport (JFK), of which \$62 million was used to fund the redemption of other bonds related to JFK:
- repaid in full \$950 million of the outstanding balance under, and terminated, the April 2016 Spare Parts Term Loan Facility;
- received approximately \$94 million in proceeds from enhanced equipment trust certificates (EETCs) and other aircraft and flight equipment financing, all of which was used to repay existing indebtedness; and
- received approximately \$193 million of cash proceeds from the sale of property and equipment primarily related to aircraft fleets retired in 2020 and raised \$181 million principally from aircraft sale-leaseback transactions.

In addition to the foregoing financings, during 2021, we received an aggregate of approximately \$3.5 billion in financial assistance through the payroll support program (PSP2) established under the PSP Extension Law. In connection with our receipt of this financial assistance, AAG issued a promissory note (the PSP2 Promissory Note) to Treasury for \$1.0 billion in aggregate principal amount and warrants to purchase up to an aggregate of approximately 6.6 million shares (the PSP2 Warrant Shares) of AAG common stock.

Also in 2021, we received an aggregate of approximately \$3.3 billion in financial assistance through the payroll support program (PSP3) established under the ARP. In connection with our receipt of this financial assistance, AAG issued a promissory note (the PSP3 Promissory Note) to Treasury for \$946 million in aggregate principal amount and warrants to purchase up to an aggregate of approximately 4.4 million shares (the PSP3 Warrant Shares) of AAG common stock. See below for further discussion on PSP2 and PSP3.

A significant portion of our debt financing agreements 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 and/or contain loan to value, collateral coverage and/or peak debt service coverage ratio covenants.

Given the above actions and our current assumptions about the future impact of the COVID-19 pandemic on travel demand, which could be materially different due to the inherent uncertainties of the current operating environment, we expect to meet our cash obligations as well as remain in compliance with the debt covenants in our existing financing agreements for the next 12 months based on our current level of unrestricted cash and short-term investments, our anticipated access to liquidity (including via proceeds from financings), and projected cash flows from operations.

PSP1

On April 20, 2020 (the PSP1 Closing Date), American, Envoy Air Inc. (Envoy), Piedmont Airlines, Inc. (Piedmont) and PSA Airlines, Inc. (PSA and together with American, Envoy and Piedmont, the Subsidiaries), entered into a Payroll Support Program Agreement (the PSP1 Agreement) with Treasury, with respect to PSP1 provided pursuant to the CARES Act. In connection with our entry into the PSP1 Agreement, on the PSP1 Closing Date, AAG also entered into a warrant agreement (the PSP1 Warrant Agreement) with Treasury and issued the PSP1 Promissory Note to Treasury, with the Subsidiaries as guarantors (the Guarantors).

PSP1 Agreement

In connection with PSP1, we are required to comply with the relevant provisions of the CARES Act, including the requirement that funds provided pursuant to the PSP1 Agreement be used exclusively for the continuation of payment of eligible employee wages, salaries and benefits, the prohibition against involuntary furloughs and reductions in employee pay rates and benefits, which expired on September 30, 2020, the requirement that certain levels of commercial air service be maintained and the provisions that prohibit the repurchase of AAG common stock and the payment of common stock dividends through at least September 30, 2021, as well as the provisions that restrict the payment of certain executive compensation until March 24, 2022. The PSP1 Agreement also imposes substantial reporting obligations on us. These provisions were subsequently extended upon our entry into PSP2 and PSP3. In addition, we have entered into the Treasury Loan Agreement (as defined below) and, as a result, the stock repurchase, dividend and executive compensation restrictions imposed by the

Treasury Loan Agreement will remain in place through the date that is one year after the secured loan provided under the Treasury Loan Agreement is fully repaid, which was in March 2021. See below for additional information on the Treasury Loan Agreement.

Pursuant to the PSP1 Agreement, Treasury provided us financial assistance in an aggregate of approximately \$6.0 billion. As partial compensation to the U.S. Government for the provision of financial assistance under PSP1, AAG issued the PSP1 Promissory Note in the aggregate principal amount of \$1.8 billion and issued warrants (each a PSP1 Warrant and, collectively, the PSP1 Warrants) to Treasury to purchase up to an aggregate of approximately 14.1 million shares (the PSP1 Warrant Shares) of AAG common stock for an exercise price of \$12.51 per share, subject to adjustment. See Note 4(g) for further information on the PSP1 Promissory Note and below for more information on the PSP1 Warrant Agreement and the PSP1 Warrants.

For accounting purposes, the \$6.0 billion of aggregate financial assistance we received pursuant to the PSP1 Agreement is allocated to the PSP1 Promissory Note, the PSP1 Warrants and other PSP1 financial assistance (the PSP1 Financial Assistance). The \$1.8 billion aggregate principal amount of the PSP1 Promissory Note was recorded as unsecured long-term debt, and the \$63 million total fair value of the PSP1 Warrants, estimated using a Black-Scholes option pricing model, was recorded in stockholders' deficit in the consolidated balance sheet. The remaining amount of approximately \$4.2 billion of PSP1 Financial Assistance was recognized as a credit to special items, net in the consolidated statement of operations in the second and third quarters of 2020, the period over which the continuation of payment of eligible employee wages, salaries and benefits was required.

PSP1 Warrant Agreement and PSP1 Warrants

As partial compensation to the U.S. Government for the provision of financial assistance under the PSP1 Agreement, and pursuant to the PSP1 Warrant Agreement, AAG issued the PSP1 Warrants to Treasury to purchase PSP1 Warrant Shares. The exercise price of the PSP1 Warrant Shares is \$12.51 per share, subject to certain anti-dilution provisions provided for in the PSP1 Warrants.

Pursuant to the PSP1 Warrant Agreement, AAG issued to Treasury PSP1 Warrants to purchase up to an aggregate of approximately 14.1 million shares of AAG common stock for an exercise price of \$12.51 per share, subject to adjustment.

The PSP1 Warrants do not have any voting rights and are freely transferrable, with registration rights. Each PSP1 Warrant expires on the fifth anniversary of the date of issuance of such PSP1 Warrant. The PSP1 Warrants will be exercisable either through net share settlement or cash, at our option. The PSP1 Warrants were issued solely as compensation to the U.S. Government related to entry into the PSP1 Agreement. No separate proceeds (apart from the financial assistance described above) were received upon issuance of the PSP1 Warrants or will be received upon exercise thereof.

Treasury Loan Agreement

On September 25, 2020 (the Treasury Loan Closing Date), AAG and American entered into a Loan and Guarantee Agreement (the Treasury Loan Agreement) with Treasury, which provided for a secured term loan facility (the Treasury Term Loan Facility) that permitted American to borrow up to \$5.5 billion. Subsequently, on October 21, 2020, AAG and American entered into an amendment to the Treasury Loan Agreement, which increased the borrowing amount to up to \$7.5 billion. In connection with our entry into the Treasury Loan Agreement, on the Treasury Loan Closing Date, AAG also entered into a warrant agreement (the Treasury Loan Warrant Agreement) with Treasury.

In September 2020, American borrowed \$550 million under the Treasury Term Loan Facility and on March 24, 2021, used proceeds from the AAdvantage Financing to prepay in full the \$550 million of outstanding loans under the Treasury Term Loan Facility. Pursuant to the Treasury Loan Agreement, AAG issued to Treasury warrants (Treasury Loan Warrants) to purchase up to an aggregate of approximately 4.4 million shares of AAG common stock (the Treasury Loan Warrant Shares). The exercise price of the Treasury Loan Warrant Shares is \$12.51 per share, subject to certain anti-dilution provisions provided for in the Treasury Loan Warrant Agreement. For accounting purposes, the fair value for the Treasury Loan Warrant Shares is estimated using a Black-Scholes option pricing model and recorded in stockholders' equity with an offsetting debt discount to the Treasury Term Loan Facility in the consolidated balance sheet. The provisions of the Treasury Loan Warrants are substantially similar to the PSP1 Warrants.

PSP2

On January 15, 2021 (the PSP2 Closing Date), the Subsidiaries, entered into a Payroll Support Program Extension Agreement (the PSP2 Agreement) with Treasury, with respect to PSP2 as provided pursuant to the PSP Extension Law. In connection with our entry into the PSP2 Agreement, on the PSP2 Closing Date, AAG also entered into a warrant agreement (the PSP2 Warrant Agreement) with Treasury and issued the PSP2 Promissory Note to Treasury, with the Subsidiaries as guarantors.

PSP2 Agreement

In connection with PSP2, we are required to comply with the relevant provisions of the PSP Extension Law, which are substantially similar to the restrictions contained in the Payroll Support Program Agreement entered into by the Subsidiaries with Treasury in connection with the payroll support program established under the CARES Act (the PSP1 Agreement), but are in effect for a longer time period. These provisions include the requirement that funds provided pursuant to the PSP2 Agreement be used exclusively for the continuation of payment of eligible employee wages, salaries and benefits, the prohibition against involuntary furloughs and reductions in employee pay rates and benefits, which expired on March 31, 2021, the provisions that prohibit the repurchase of AAG common stock and the payment of common stock dividends through at least March 31, 2022, the provisions that restrict the payment of certain executive compensation until at least October 1, 2022, and a requirement to recall employees involuntarily terminated or furloughed after September 30, 2020. As was the case with PSP1, the PSP2 Agreement also imposes substantial reporting obligations on us.

Pursuant to the PSP2 Agreement, Treasury provided us financial assistance in an aggregate of approximately \$3.5 billion. As partial compensation to the U.S. Government for the provision of financial assistance under PSP2, AAG issued the PSP2 Promissory Note in the aggregate principal amount of \$1.0 billion and issued warrants (each a PSP2 Warrant and, collectively, the PSP2 Warrants) to Treasury to purchase up to an aggregate of approximately 6.6 million shares of AAG common stock for an exercise price of \$15.66 per share, subject to adjustment. See Note 4(g) for further information on the PSP2 Promissory Note and below for more information on the PSP2 Warrant Agreement and PSP2 Warrants.

For accounting purposes, the \$3.5 billion of aggregate financial assistance we received pursuant to the PSP2 Agreement is allocated to the PSP2 Promissory Note, the PSP2 Warrants and other PSP2 financial assistance (the PSP2 Financial Assistance). The \$1.0 billion aggregate principal amount of the PSP2 Promissory Note was recorded as unsecured long-term debt, and the \$76 million total fair value of the PSP2 Warrants, estimated using a Black-Scholes option pricing model, was recorded in stockholders' deficit in the consolidated balance sheet. The remaining amount of approximately

\$2.4 billion of PSP2 Financial Assistance was recognized as a credit to special items, net in the consolidated statement of operations in the first and second quarters of 2021, the period over which the continuation of payment of eligible employee wages, salaries and benefits was required.

PSP2 Warrant Agreement and PSP2 Warrants

As partial compensation to the U.S. Government for the provision of financial assistance under the PSP2 Agreement, and pursuant to the PSP2 Warrant Agreement, AAG issued the PSP2 Warrants to Treasury to purchase PSP2 Warrant Shares. The exercise price of the PSP2 Warrant Shares is \$15.66 per share, subject to certain anti-dilution provisions provided for in the PSP2 Warrants.

Pursuant to the PSP2 Warrant Agreement, AAG issued to Treasury PSP2 Warrants to purchase up to an aggregate of approximately 6.6 million shares of AAG common stock for an exercise price of \$15.66 per share, subject to adjustment.

The PSP2 Warrants do not have any voting rights and are freely transferrable, with registration rights. Each PSP2 Warrant expires on the fifth anniversary of the date of issuance of such PSP2 Warrant. The PSP2 Warrants will be exercisable either through net share settlement or cash, at our option. The PSP2 Warrants were issued solely as compensation to the U.S. Government related to entry into the PSP2 Agreement. No separate proceeds (apart from the financial assistance described above) were received upon issuance of the PSP2 Warrants or will be received upon exercise thereof.

PSP3

On April 23, 2021 (the PSP3 Closing Date), the Subsidiaries, entered into a Payroll Support Program 3 Agreement (the PSP3 Agreement) with Treasury, with respect to PSP3 as provided pursuant to the ARP. In connection with our entry into the PSP3 Agreement, on the PSP3 Closing Date, AAG also entered into a warrant agreement (the PSP3 Warrant Agreement) with Treasury and issued the PSP3 Promissory Note to Treasury, with the Subsidiaries as guarantors.

PSP3 Agreement

In connection with PSP3, we are required to comply with the relevant provisions of the ARP, which are substantially similar to the restrictions contained in the PSP1 Agreement, but are in effect for a longer time period. These provisions include the requirement that funds provided pursuant to the PSP3 Agreement be used exclusively for the continuation of payment of eligible employee wages, salaries and benefits, the prohibition against involuntary furloughs and reductions in employee pay rates and benefits, which expired on September 30, 2021, the provisions that prohibit the repurchase of AAG common stock and the payment of common stock dividends through at least September 30, 2022, and the provisions that restrict the payment of certain executive compensation until April 1, 2023. As was the case with PSP1 and PSP2, the PSP3 Agreement also imposes substantial reporting obligations on us.

Pursuant to the PSP3 Agreement, Treasury provided us financial assistance in an aggregate of approximately \$3.3 billion. As partial compensation to the U.S. Government for the provision of financial assistance under PSP3, AAG issued the PSP3 Promissory Note in the aggregate principal amount of \$946 million and issued warrants (each a PSP3 Warrant and, collectively, the PSP3 Warrants) to Treasury to purchase up to an aggregate of approximately 4.4 million shares of AAG common stock for an exercise price of \$21.75 per share, subject to adjustment. See Note 4(g) for further information on the PSP3 Promissory Note and below for more information on the PSP3 Warrant Agreement and PSP3 Warrants.

For accounting purposes, the \$3.3 billion of aggregate financial assistance we received pursuant to the PSP3 Agreement is allocated to the PSP3 Promissory Note, the PSP3 Warrants and other PSP3 financial assistance (the PSP3 Financial Assistance). The \$946 million aggregate principal amount of the PSP3 Promissory Note was recorded as unsecured long-term debt, and the \$46 million total fair value of the PSP3 Warrants, estimated using a Black-Scholes option pricing model, was recorded in stockholders' deficit in the consolidated balance sheet. The remaining amount of approximately \$2.3 billion of PSP3 Financial Assistance was recognized as a credit to special items, net in the consolidated statements of operations in the second and third quarters of 2021, the period over which the continuation of payment of eligible employee wages, salaries and benefits was required.

PSP3 Warrant Agreement and PSP3 Warrants

As partial compensation to the U.S. Government for the provision of financial assistance under the PSP3 Agreement, and pursuant to the PSP3 Warrant Agreement, AAG issued the PSP3 Warrants to Treasury to purchase PSP3 Warrant Shares. The exercise price of the PSP3 Warrant Shares is \$21.75 per share, subject to certain anti-dilution provisions provided for in the PSP3 Warrants.

Pursuant to the PSP3 Warrant Agreement, AAG issued to Treasury PSP3 Warrants to purchase up to an aggregate of approximately 4.4 million shares of AAG common stock for an exercise price of \$21.75 per share, subject to adjustment.

The PSP3 Warrants do not have any voting rights and are freely transferrable, with registration rights. Each PSP3 Warrant expires on the fifth anniversary of the date of issuance of such PSP3 Warrant. The PSP3 Warrants will be exercisable either through net share settlement or cash, at our option. The PSP3 Warrants were issued solely as compensation to the U.S. Government related to entry into the PSP3 Agreement. No separate proceeds (apart from the financial assistance described above) were received upon issuance of the PSP3 Warrants or will be received upon exercise thereof.

(c) Recent Accounting Pronouncements

ASU 2020-06: Accounting for Convertible Instruments and Contracts In An Entity's Own Equity (the New Convertible Debt Standard)

The New Convertible Debt Standard simplifies the accounting for certain convertible instruments by removing the separation models for convertible debt with a cash conversion feature and for convertible instruments with a beneficial conversion feature. As a result, more convertible debt instruments will be reported as a single liability instrument with no separate accounting for embedded conversion features. Additionally, the New Convertible Debt Standard amends the diluted earnings per share calculation for convertible instruments by requiring the use of the if-converted method. The treasury stock method is no longer available. Entities may adopt the New Convertible Debt Standard using either a full or modified retrospective approach, and it is effective for interim and annual reporting periods beginning after December 15, 2021. Early adoption is permitted for interim and annual reporting periods beginning after December 15, 2020. The New Convertible Debt Standard is applicable to our 6.50% convertible senior notes due 2025 (the Convertible Notes). We early adopted the New Convertible Debt Standard as of January 1, 2021 using the modified retrospective method to recognize the Convertible Notes as a single liability instrument. As of January 1, 2021, we recorded a \$415 million (\$320 million net of tax) reduction to additional paid-in capital to remove the equity component of the Convertible Notes from our consolidated balance sheet and a \$19 million cumulative effect adjustment credit, net of tax, to retained deficit related to non-cash debt discount amortization recognized in periods prior to adoption resulting in a corresponding reduction of \$389 million to the debt discount associated with the Convertible Notes. See Note 4(h) for additional information on the Convertible Notes.

ASU 2019-12: Simplifying the Accounting for Income Taxes (Topic 740)

This standard simplifies the accounting and disclosure requirements for income taxes by clarifying the existing guidance to improve consistency in the application of Accounting Standards Codification 740. This standard also removed the requirement to calculate income tax expense for the stand-alone financial statements of wholly-owned subsidiaries that are not subject to income tax. We adopted this standard effective January 1, 2021, and it did not have a material impact on our consolidated financial statements.

ASU 2021-10: Disclosures by Business Entities about Government Assistance (Topic 832)

This standard provides guidance on the disclosure requirements for business entities receiving government assistance. Specifically, entities are required to disclose information about the nature of the assistance received, including the related accounting, the affected line items on the financial statements and amounts, and the significant terms and conditions, including any commitments and contingencies. This standard is effective for annual periods beginning after December 15, 2021, and early adoption is permitted. We adopted this standard as of December 31, 2021. See (b) *Impact of COVID-19* above for disclosure related to the financial assistance we have received from Treasury.

(d) Investments

Short-term investments primarily include debt securities and 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. For investments in an unrealized loss position, we determine whether a credit loss exists by considering information about the collectability of the instrument, current market conditions and reasonable and supportable forecasts of economic conditions. There have been no credit losses.

Equity investments are accounted for under the equity method if we are able to exercise significant influence over an investee. Equity investments for which we do not have significant influence are recorded at fair value or at cost, if fair value is not readily determinable, with adjustments for observable changes in price or impairments (referred to as the measurement alternative). Our share of equity method investee's financial results and changes in fair value are recorded in nonoperating other income, net on the consolidated statements of operations. See Note 8 for additional information related to our investments.

(e) Restricted Cash and Short-term Investments

We have restricted cash and short-term investments related primarily to collateral held to support workers' compensation obligations, collateral associated with the payment of interest for the AAdvantage Financing and money market funds to be used to finance a substantial portion of the cost of the renovation and expansion of the Terminal at JFK.

(f) 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, which is recognized over the weighted average remaining useful life of the related fleet. We also provide an allowance for spare parts and supplies identified as excess or obsolete to reduce the carrying cost to the lower of cost or net realizable value. Aircraft fuel, spare parts and supplies are expensed when used.

(g) 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	
Capitalized software	

Total depreciation and amortization expense was \$2.3 billion, \$2.4 billion and \$2.6 billion for the years ended December 31, 2021, 2020 and 2019, respectively.

We assess impairment of operating property and equipment when events and circumstances indicate that the assets may be impaired. An impairment of an asset or group of assets exists only when the sum of the estimated undiscounted cash flows expected to be generated directly by the assets are less than the carrying value of the assets. We group assets principally by fleet-type when estimating future cash flows, which is generally the lowest level for which identifiable cash flows exist. Estimates of future cash flows are based on historical results adjusted to reflect management's best estimate of future market and operating conditions, including our current fleet plan. If such assets are impaired, the impairment charge recognized is the amount by which the carrying value of the assets exceed their fair value. Fair value reflects management's best estimate including inputs from published pricing guides and bids from third parties as well as contracted sales agreements when applicable. In 2021, we retired our remaining Embraer 140 fleet and recorded \$27 million in non-cash special impairment charges reflecting the difference between the carrying values of these assets and their fair values.

At December 31, 2021 and 2020, prepaid expense and other on the consolidated balance sheets included \$29 million and \$164 million, respectively, of retired aircraft that are expected to be sold in the next year, and other assets on the consolidated balance sheets included \$383 million and \$401 million, respectively, of nonoperating retired aircraft.

(h) Leases

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 on our consolidated balance sheets. 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, on our consolidated balance sheets.

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 our consolidated balance sheets. 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 11(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.

(i) 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.

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 availability and price volatility of aircraft fuel and travel demand.

(i) Goodwill

Goodwill represents the purchase price in excess of the fair value of the net assets acquired and liabilities assumed in connection with the merger with US Airways Group. We have one reporting unit. We assess goodwill for impairment annually or more frequently if events or circumstances indicate that the fair value of goodwill may be lower than the carrying value. Our annual assessment date is October 1.

Goodwill is assessed for impairment by initially performing a qualitative assessment. If we determine that it is more likely than not that our goodwill may be impaired, we use a quantitative approach to assess the asset's fair value and the amount of the impairment, if any. Based upon our annual assessment, there was no goodwill impairment in 2021. The carrying value of our goodwill on our consolidated balance sheets was \$4.1 billion as of December 31, 2021 and 2020.

(k) Other Intangibles, Net

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

Definite-Lived Intangible Assets

Definite-lived intangible assets are originally recorded at their acquired fair values, subsequently amortized over their respective estimated useful lives and are assessed for impairment whenever events and circumstances indicate that the assets may be impaired.

The following table provides information relating to our amortizable intangible assets as of December 31, 2021 and 2020 (in millions):

	Decem	ber 31,
	2021	2020
Domestic airport slots	\$ 365	\$ 365
Customer relationships	300	300
Marketing agreements	105	105
Tradenames	35	35
Airport gate leasehold rights		137
Accumulated amortization	(786)	(745)
Total	\$ 156	\$ 197

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 for each of the years ended December 31, 2021, 2020 and 2019. We expect to record annual amortization expense for these intangible assets as follows (in millions):

2022	\$ 41
2023	
2024	
2025	
2026	6
2027 and thereafter	88
Total	\$156

Indefinite-Lived Intangible Assets

Indefinite-lived intangible assets include certain domestic airport slots and international slots and route authorities. We assess indefinite-lived intangible assets for impairment annually or more frequently if events or circumstances indicate that the fair values of indefinite-lived intangible assets may be lower than their carrying values. Our annual assessment date is October 1.

Indefinite-lived intangible assets are assessed for impairment by initially performing a qualitative assessment. If we determine that it is more likely than not that our indefinite-lived intangible assets may be impaired, we use a quantitative approach to assess the asset's fair value and the amount of the impairment, if any. Based upon our annual assessment, there were no indefinite-lived intangible asset impairments in 2021. We had \$1.8 billion of indefinite-lived intangible assets on our consolidated balance sheets as of December 31, 2021 and 2020.

(I) Revenue Recognition

Revenue

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

	Year Ended December 31,		
	2021	2020	2019
Passenger revenue: Passenger travel	\$23,896	\$13,456	\$38,831
Loyalty revenue – travel (1)	2,167	1,062	3,179
Total passenger revenue	26,063 1,314	14,518 769	42,010 863
Other: Loyalty revenue – marketing services (2) Other revenue	2,166 339	1,825 225	2,361 534
Total other revenue	2,505	2,050	2,895
Total operating revenues	\$29,882	\$17,337	\$45,768

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

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

	Year Ended December 31,		
	2021	2020	2019
Domestic	\$21,453	\$11,765	\$30,881
Latin America	3,506	1,852	5,047
Atlantic	965	654	4,624
Pacific	139	247	1,458
Total passenger revenue	\$26,063	\$14,518	\$42,010

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

During the years ended December 31, 2021, 2020 and 2019, cash payments from co-branded credit card and other partners were \$3.4 billion, \$2.9 billion and \$3.9 billion, respectively.

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 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 unused 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 **one**world airline or other partner airlines, or by using the services of other program participants, such as our co-branded credit cards, and certain 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 response to the COVID-19 pandemic, we suspended the expiration of mileage credits through March 31, 2022 and eliminated mileage reinstatement fees for canceled award tickets.

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 mileage credits that will not be redeemed using a statistical model based on historical redemption patterns to develop an estimate of the likelihood of future redemption. Given the inherent uncertainty of the current operating environment due to the COVID-19 pandemic, we will continue to monitor redemption patterns and may adjust our estimates in the future.

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 five 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. 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 use a statistical model based on historical redemption patterns to develop an estimate of the likelihood of future redemption.

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. Loyalty revenue included in other revenue was \$2.2 billion, \$1.8 billion and \$2.4 billion for the years ended December 31, 2021, 2020 and 2019, 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 sheets and (2) ticket sales for transportation that has not yet been provided, reported as air traffic liability on our consolidated balance sheets.

	Decem	ber 31,
	2021	2020
	(in mi	llions)
Loyalty program liability	\$ 9,135	\$ 9,195
Air traffic liability	6,087	4,757
Total	\$15,222	\$13,952

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, 2020	\$ 9,195
Deferral of revenue	2,161
Recognition of revenue (1)	(2,221)
Balance at December 31, 2021 (2)	\$ 9,135

- 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.
- Mileage credits can be redeemed at any time and generally do not expire as long as that AAdvantage member has any type of qualifying activity at least every 18 months. In response to the COVID-19 pandemic, we suspended the expiration of mileage credits through March 31, 2022 and eliminated mileage reinstatement fees for canceled award tickets. As of December 31, 2021, our current loyalty program liability was \$2.9 billion and represents our current estimate of revenue expected to be recognized in the next 12 months based on historical as well as projected trends, with the balance reflected in long-term loyalty program liability expected to be recognized as revenue in periods thereafter. Given the inherent uncertainty of the current operating environment due to the COVID-19 pandemic, we will continue to monitor redemption patterns and may adjust our estimates in the future.

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 generally one year. Accordingly, any revenue associated with tickets sold for future travel will be recognized within 12 months. For 2021, \$1.7 billion of revenue was recognized in passenger revenue that was included in our air traffic liability at December 31, 2020. In response to the COVID-19 pandemic, we extended the contract duration for certain tickets to March 31, 2022, principally those tickets which were scheduled to expire from March 1, 2020 through March 31, 2021. Additionally, tickets to certain international destinations have extended contract duration to December 31, 2022. We also have eliminated change fees for most domestic and international tickets providing more flexibility for customers to change travel plans. Given these changes and the uncertainty surrounding the future demand for air travel, our estimates of revenue that will be recognized from the air traffic liability for future flown or unused tickets as well as our estimates of refunds may be subject to variability and differ from historical experience.

Our ticket contract receivables relate to ticket sales to individual passengers primarily through the use of major credit cards and are reflected as accounts receivable, net on the accompanying consolidated balance sheets. These receivables are short-term, mostly settled within seven days after sale. All accounts receivable are reported net of an allowance for credit losses, which have been minimal. We consider past and future financial and qualitative factors when establishing the allowance for credit losses.

(m) 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.

(n) Selling Expenses

Selling expenses include credit card fees, commissions, third party distribution channel fees and advertising. Selling expenses associated with passenger revenue are expensed when the transportation or service is provided. Advertising costs are expensed as incurred. Advertising expense was \$105 million, \$57 million and \$144 million for the years ended December 31, 2021, 2020 and 2019, respectively.

(o) 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. The majority of our stock awards are time vested restricted stock units, and the fair value of such awards is based on the market price of the underlying shares of AAG common stock on the date of grant. See Note 14 for further discussion of share-based compensation.

(p) Foreign Currency Gains and Losses

Foreign currency gains and losses are recorded as part of other income, net within total nonoperating expense, net on our consolidated statements of operations. For the years ended December 31, 2021, 2020 and 2019, respectively, foreign currency losses were \$4 million, \$24 million and \$32 million.

(q) Other Operating Expenses

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

(r) Regional Expenses

Our regional carriers provide scheduled air transportation under the brand name "American Eagle." The American Eagle carriers include our wholly-owned regional carriers as well as third-party regional carriers. Substantially all of our regional carrier arrangements are in the form of capacity purchase agreements. Expenses associated with American Eagle operations are classified as regional expenses on the consolidated statements of operations.

Beginning in the first quarter of 2021, aircraft fuel and related taxes as well as certain salaries, wages and benefits, other rent and landing fees, selling and other expenses are no longer allocated to regional expenses on our consolidated statements of operations. The 2020 consolidated statement of operations has been recast to conform to the 2021 presentation. This statement of operations presentation change has no impact on total operating expenses or net loss.

Regional expenses for the years ended December 31, 2021, 2020, and 2019 include \$316 million, \$325 million and \$336 million of depreciation and amortization, respectively, and \$6 million, \$13 million and \$29 million of aircraft rent, respectively.

In 2021, 2020, and 2019, we recognized \$495 million, \$438 million and \$590 million, respectively, of expense under our capacity purchase agreement with Republic Airways Inc. (Republic). We hold a 25% equity interest in Republic Airways Holdings Inc. (Republic Holdings), the parent company of Republic.

2. Special Items, Net

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

	Year Ended December 31,		
	2021	2020	2019
PSP Financial Assistance (1)	, , ,	,	\$ —
Severance expenses (2)	168 (19)	1,408 —	11 (53)
Mark-to-market adjustments on bankruptcy obligations, net (3)	(3)	(49)	(11)
Fleet impairment (4)	_	1,484 228	213
Fleet restructuring expenses (6)	_	_	271
Merger integration expenses (7)	10	(18)	191
Mainline operating special items, net	(4,006) (539)	(657) (444)	635
Regional pilot retention program (8)	61	— (¬¬¬)	_
Fleet impairment (4)	27 2	117 18	_
Severance expenses (2)	_	—	6
Regional operating special items, net	(449)	(309)	6
Operating special items, net	(4,455)	(966)	641
Mark-to-market adjustments on equity and other investments, net (9) Debt refinancing, extinguishment and other, net	31 29	135 35	(5) 8
Nonoperating special items, net	60	170	3

⁽¹⁾ The 2021 PSP Financial Assistance represents recognition of a portion of the financial assistance received from Treasury pursuant to the PSP2 and PSP3 Agreements. See Note 1(b) for further information. The 2020 PSP Financial Assistance represents recognition of a portion of the financial assistance received from Treasury pursuant to the PSP1 Agreement.

The 2019 severance expenses primarily included costs associated with reductions of management and support staff team members.

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

⁽²⁾ The 2021 and 2020 severance expenses include salary and medical costs primarily associated with certain team members who opted into voluntary early retirement programs offered as a result of reductions to our operation due to the COVID-19 pandemic. Cash payments primarily associated with our voluntary early retirement programs were approximately \$520 million and \$365 million in 2021 and 2020, respectively.

- (4) Fleet impairment charges resulted from the retirement of certain aircraft earlier than planned driven by the severe decline in air travel due to the COVID-19 pandemic. In 2021, we retired our remaining Embraer 140 fleet resulting in a non-cash write-down of these regional aircraft. See Note 1(g) for further information related to these charges.
 - In 2020, we retired our entire Airbus A330-200, Boeing 757, Boeing 767, Airbus A330-300 and Embraer 190 fleets as well as certain Embraer 140 and Bombardier CRJ200 aircraft resulting in a \$1.5 billion non-cash write-down of mainline and regional aircraft and associated spare parts and \$109 million in cash charges primarily for impairment of ROU assets and lease return costs.
 - The 2019 fleet impairment principally included a non-cash write-down of aircraft related to the retirement of our Embraer 190 fleet.
- (5) The 2020 labor contract expenses primarily related to one-time charges due to the ratification of a new contract with the Transport Workers Union and International Association of Machinists & Aerospace Workers (TWU-IAM Association) for our maintenance and fleet service team members, including signing bonuses and adjustments to vacation accruals resulting from pay rate increases.
- (6) Fleet restructuring expenses principally included accelerated depreciation and rent expense for aircraft and related equipment expected to be retired earlier than planned.
- (7) Merger integration expenses included costs associated with integration projects, principally our technical operations, flight attendant, human resources and payroll systems.
- (8) Our regional pilot retention program provides for, among other things, a cash retention bonus paid in the fourth quarter of 2021 to eligible captains at our wholly-owned regional airlines included on the pilot seniority list as of September 1, 2021.
- (9) Mark-to-market adjustments on equity and other investments, net primarily related to net unrealized gains and losses associated with our equity investments in China Southern Airlines Company Limited (China Southern Airlines) and in 2021, Vertical Aerospace Ltd. (Vertical), and certain treasury rate lock derivative instruments.

3. Earnings (Loss) Per Common Share

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

	Year Ended December 31,			
	2021	2020	2019	
Basic EPS: Net income (loss)	\$ (1,993)	\$ (8,885)	\$ 1,686	
Weighted average common shares outstanding (in thousands)	644,015	483,888	443,363	
Basic EPS	\$ (3.09)	<u>\$ (18.36)</u>	\$ 3.80	
Diluted EPS:				
Net income (loss) for purposes of computing diluted EPS Share computation for diluted EPS (in thousands):	\$ (1,993)	\$ (8,885)	\$ 1,686	
Basic weighted average common shares outstanding Dilutive effect of stock awards and warrants	644,015	483,888	443,363 906	
Diluted weighted average common shares outstanding	644,015	483,888	444,269	
Diluted EPS	<u>\$ (3.09)</u>	<u>\$ (18.36)</u>	\$ 3.79	

Securities that could potentially dilute EPS in the future, and which were excluded from the calculation of diluted EPS because inclusion of such shares would be antidilutive, are as follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
6.50% convertible senior notes			
PSP1 Warrants	5,392	349	_
Restricted stock unit awards	3,420	4,584	2,520
Treasury Loan Warrants	1,681	107	
PSP2 Warrants	1.300		_

4. Debt

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

	December 31,	
	2021	2020
Secured		
2013 Term Loan Facility, variable interest rate of 1.85%, installments through		
2025 ^(a)	\$ 1,770	\$ 1,788
2013 Revolving Facility (a)	_	750
2014 Term Loan Facility, variable interest rate of 1.85%, installments through 2027 (a)	1,208	1,220
2014 Revolving Facility (a)	1,200	1,643
April 2016 Spare Parts Term Loan Facility (a)	_	960
April 2016 Revolving Facility (a)	_	450
December 2016 Term Loan Facility, variable interest rate of 2.11%, installments		
through 2023 (a)	1,188	1,200
11.75% senior secured notes, interest only payments until due in	0.500	0.500
July 2025 (b)	2,500	2,500
2026 (b)	1,000	1,000
10.75% senior secured LGA/DCA notes, interest only payments until due in	1,000	1,000
February 2026 (b)	200	200
Treasury Term Loan Facility (c)	_	550
5.50% senior secured notes, installments beginning in July 2023 until due in		
April 2026 (d)	3,500	_
5.75% senior secured notes, installments beginning in July 2026 until due in	2.000	
April 2029 (d)	3,000	_
beginning in July 2023 through April 2028 (d)	3,500	
Enhanced equipment trust certificates (EETCs), fixed interest rates ranging	0,000	
from 2.88% to 8.39%, averaging 3.84%, maturing from 2022 to 2034 (e)	9,357	11,013
Equipment loans and other notes payable, fixed and variable interest rates		
ranging from 1.27% to 4.64%, averaging 1.82%, maturing from 2022 to		
2032	3,433	4,417
Special facility revenue bonds, fixed interest rates ranging from 2.25% to 5.38%, maturing from 2026 to 2036 (f)	1 120	1.064
5.50 /0, maturing nom 2020 to 2030 W	1,129	1,064
	31,785	28,755

	December 31,	
	2021	2020
Unsecured		
PSP1 Promissory Note, interest only payments until due in April 2030 (g)	1,765	1,765
PSP2 Promissory Note, interest only payments until due in January 2031 (g)	1,035	_
PSP3 Promissory Note, interest only payments until due in April 2031 ^(g) 6.50% convertible senior notes, interest only payments until due in July	946	_
2025 ^(h)	1,000	1,000
5.000% senior notes, interest only payments until due in June 2022 (i)	750	750
3.75% senior notes, interest only payments until due in March 2025 (i)	500	500
	5,996	4,015
Total long-term debt	37,781	32,770
Less: Total unamortized debt discount, premium and issuance costs	458	749
Less: Current maturities	2,315	2,697
Long-term debt, net of current maturities	\$35,008	\$29,324
As of December 31, 2021, the maximum availability under our revolving credit as follows (in millions):	and other fa	acilities is
2013 Revolving Facility		\$ 750
2014 Revolving Facility		
April 2016 Revolving Facility		
Short-term Revolving and Other Facilities		568

American has an undrawn \$500 million short-term revolving credit facility, which was set to expire at the beginning of January 2022 but which has been extended through the beginning of January 2023. Beginning January 2, 2022, the available amount thereunder decreased to \$150 million. American also currently has approximately \$68 million of available borrowing base under a cargo receivables facility that was entered into in December 2020 and is set to expire in December 2022. The December 2016 Credit Facilities provide for a revolving credit facility that may be established thereunder in the future.

Secured financings, including revolving credit and other facilities, are collateralized by assets, consisting primarily of aircraft, engines, simulators, aircraft spare parts, airport gate leasehold rights, route authorities, airport slots, certain receivables, certain intellectual property and certain loyalty program assets.

At December 31, 2021, the maturities of long-term debt are as follows (in millions):

2022	\$ 2,387
2023	
2024	3,467
2025	9,249
2026	4,412
2027 and thereafter	14,099
Total	\$37,781

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

2013 Credit Facilities

In November 2019, American and AAG entered into the Sixth Amendment to Amended and Restated Credit and Guaranty Agreement, amending the Amended and Restated Credit and Guaranty Agreement dated as of May 21, 2015 (as previously amended, the 2013 Credit Agreement; the revolving credit 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), which reduced the total aggregate commitments under the 2013 Revolving Facility to \$750 million from \$1.0 billion. In addition, certain lenders party to the 2013 Credit Agreement extended the maturity date of their commitments under the 2013 Revolving Facility to October 2024 from October 2023.

In March 2021, American repaid in full the \$750 million of outstanding revolving loans under the 2013 Revolving Facility that was drawn in April 2020. Following the March 2021 repayment, American is able to draw upon the commitment under the 2013 Revolving Facility again as needed upon the terms of the 2013 Credit Agreement or leave it undrawn, in each case, until such commitment expires, which is currently scheduled to occur in October 2024. As of December 31, 2021, there were no borrowings or letters of credit outstanding under the 2013 Revolving Facility.

2014 Credit Facilities

In November 2019, American and AAG entered into the Seventh Amendment to Amended and Restated Credit and Guaranty Agreement, amending the Amended and Restated Credit and Guaranty Agreement dated as of April 20, 2015 (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), which increased the total aggregate commitments under the 2014 Revolving Facility to \$1.6 billion from \$1.5 billion. In addition, certain lenders party to the 2014 Credit Agreement extended the maturity date of their commitments under the 2014 Revolving Facility to October 2024 from October 2023.

In January 2020, American and AAG entered into the Eighth Amendment to the 2014 Credit Agreement, pursuant to which American refinanced the 2014 Term Loan Facility, increasing the total aggregate principal amount outstanding to \$1.2 billion, reducing the LIBOR margin from 2.00% to 1.75%, with a LIBOR floor of 0%, and reducing the base rate margin from 1.00% to 0.75%. In addition, the maturity date for the 2014 Term Loan Facility was extended to January 2027 from October 2021.

In March 2021, American repaid in full the \$1.6 billion of outstanding revolving loans under the 2014 Revolving Facility that was drawn in April and May 2020. Following the March 2021 repayment, American is able to draw upon the commitment under the 2014 Revolving Facility again as needed upon the terms of the 2014 Credit Agreement or leave it undrawn, in each case, until such commitment expires, which is currently scheduled to occur in October 2024. As of December 31, 2021, there were no borrowings or letters of credit outstanding under the 2014 Revolving Facility.

April 2016 Credit Facilities

In November 2019, American and AAG entered into the Fifth Amendment to Credit and Guaranty Agreement, amending the Credit and Guaranty Agreement dated as of April 29, 2016 (as previously amended, the April 2016 Credit Agreement; the revolving credit facility established thereunder, the

April 2016 Revolving Facility; the term loan facility established thereunder, the April 2016 Spare Parts Term Loan Facility; and the April 2016 Revolving Facility together with the April 2016 Spare Parts Term Loan Facility, the April 2016 Credit Facilities), which increased the total aggregate commitments under the April 2016 Revolving Facility to \$450 million from \$300 million. In addition, certain lenders party to the April 2016 Credit Agreement extended the maturity date of their commitments under the April 2016 Revolving Facility to October 2024 from October 2023.

In March 2021, American repaid in full the \$450 million of outstanding revolving loans under the April 2016 Revolving Facility that was drawn in April 2020. Following the March 2021 repayment, American is able to draw upon the commitment under the April 2016 Revolving Facility again as needed upon the terms of the April 2016 Credit Agreement or leave it undrawn, in each case, until such commitment expires, which is currently scheduled to occur in October 2024.

On July 22, 2021, American repaid in full the \$950 million aggregate principal amount of outstanding term loans under, and terminated, the April 2016 Spare Parts Term Loan Facility. The April 2016 Revolving Facility, in an available aggregate principal amount of \$450 million, remains in place. As of December 31, 2021, there were no borrowings outstanding under the April 2016 Revolving Facility.

December 2016 Credit Facilities

In December 2016, American and AAG entered into the Amended and Restated Credit and Guaranty Agreement, dated as of December 15, 2016 (as amended, the December 2016 Credit Agreement; the term loan facility established thereunder, the December 2016 Term Loan Facility; and together with the revolving credit facility that may be established thereunder in the future, the December 2016 Credit Facilities).

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, 2021:

	2013 Cre	2013 Credit Facilities		it Facilities	April 2016 Credit Facilities	December 2016 Credit Facilities
	2013 Term Loan	2013 Revolving Facility	2014 Term Loan	2014 Revolving Facility	April 2016 Revolving Facility	December 2016 Term Loan
Aggregate principal issued or credit facility availability (in millions)	\$1,919	\$750	\$1,280	\$1,643	\$450	\$1,250
Principal outstanding or drawn (in millions)	\$1,770	\$—	\$1,208	\$—	\$	\$1,188
Maturity date	June 2025	October 2024	January 2027	October 2024	October 2024	December 2023
LIBOR margin	1.75%	2.00%	1.75%	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%.

Subject to certain limitations and exceptions, the Credit Facilities are secured by collateral, including certain spare parts, slots, route authorities, simulators and 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 "Certain 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 an aggregate of at least \$2.0 billion of unrestricted cash and cash equivalents and amounts available to be drawn under revolving credit facilities 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) Senior Secured Notes

11.75% Senior Secured Notes

In June 2020, American issued \$2.5 billion aggregate principal amount of 11.75% senior secured notes due 2025 (the 11.75% Senior Secured Notes) at a price equal to 99% of their aggregate principal amount. The 11.75% Senior Secured Notes bear interest at a rate of 11.75% per annum (subject to increase if the collateral coverage ratio described below is not met). Interest on the 11.75% Senior Secured Notes is payable semiannually in arrears on January 15 and July 15 of each year, which began on January 15, 2021. The 11.75% Senior Secured Notes will mature on July 15, 2025. The obligations of American under the 11.75% Senior Secured Notes are fully and unconditionally guaranteed on a senior unsecured basis by AAG.

The 11.75% Senior Secured Notes were issued pursuant to an indenture, dated as of June 30, 2020 (the 11.75% Senior Secured Notes Indenture), by and among American, AAG and Wilmington Trust, National Association, as trustee (the 11.75% Senior Secured Notes Trustee). The 11.75% Senior Secured Notes are American's senior secured obligations. Subject to certain limitations and exceptions, the 11.75% Senior Secured Notes are secured on a first-lien basis by security interests in certain assets, rights and properties utilized by American in providing its scheduled air carrier services to and from certain airports in the United States and certain airports in Australia, Canada, the Caribbean, Central America, China, Hong Kong, Japan, Mexico, South Korea, and Switzerland (collectively, the First Lien 11.75% Senior Secured Notes Collateral). American's obligations with respect to the 11.75% Senior Secured Notes are also secured on a second-lien basis by security interests in certain assets, rights and properties utilized by American in providing its scheduled air carrier services to and from certain airports in the United States and certain airports in the European Union and the United Kingdom (collectively, the Second Lien 11.75% Senior Secured Notes Collateral and together with the First Lien 11.75% Senior Secured Notes Collateral, the 11.75% Senior Secured Notes Collateral). American may be required to pledge additional collateral in the future under the terms of the 11.75% Senior Secured Notes, and in certain circumstances may elect to pledge additional collateral as a replacement for existing collateral. The Second Lien 11.75% Senior Secured Notes Collateral also secures the 2014 Credit Facilities on a first-lien basis.

American may redeem the 11.75% Senior Secured Notes, in whole at any time or in part from time to time, at a redemption price equal to 100% of the principal amount of the 11.75% Senior Secured Notes being redeemed plus a make whole premium, together with accrued and unpaid interest thereon, if any, to (but not including) the redemption date.

In the event of a specified change of control, each holder of 11.75% Senior Secured Notes may require American to repurchase its 11.75% Senior Secured Notes in whole or in part at a repurchase price of 101% of the aggregate principal amount thereof, plus accrued and unpaid interest thereon, if any, to (but not including) the repurchase date.

American is required to deliver an appraisal of the First Lien 11.75% Senior Secured Notes Collateral and officer's certificate on a semi-annual basis demonstrating the calculation of a collateral coverage ratio in relation to the First Lien 11.75% Senior Secured Notes Collateral as of the end of each semi-annual period based on such appraisal. If American fails to deliver the officer's certificate in a timely manner or the collateral coverage ratio is less than 1.6 to 1.0 as of the end of the semi-annual period, then, subject to an opportunity to cure the deficiency in the collateral coverage ratio, American will be required to pay special interest in an additional amount equal to 2.0% per annum of the outstanding principal amount of the 11.75% Senior Secured Notes until the collateral coverage ratio is established to be at least 1.6 to 1.0.

The 11.75% Senior Secured Notes Indenture contains covenants that, among other things, restrict the ability of AAG and the ability of its restricted subsidiaries (including American) to: (i) pay dividends, redeem or repurchase stock or make other distributions or restricted payments, (ii) incur liens on the 11.75% Senior Secured Notes Collateral and dispose of or release the 11.75% Senior Secured Notes Collateral, (iii) repay subordinated indebtedness, (iv) make certain loans and investments, (v) incur indebtedness or issue preferred stock, (vi) merge, consolidate or sell assets, (vii) undergo certain change of control transactions, and (viii) designate subsidiaries as unrestricted. These covenants are subject to a number of important exceptions and qualifications set forth in the 11.75% Senior Secured Notes Indenture.

Upon the occurrence of any event of default (other than certain bankruptcy or insolvency or reorganization events affecting AAG or certain of its subsidiaries, including American), the 11.75% Senior Secured Notes may be declared to be due and payable immediately. Upon the occurrence of certain bankruptcy, insolvency or reorganization events affecting American or certain of its subsidiaries (including American), all outstanding 11.75% Senior Secured Notes will become due and payable immediately without further action or notice on the part of the 11.75% Senior Secured Notes Trustee or any holder of the 11.75% Senior Secured Notes.

10.75% Senior Secured Notes

On September 25, 2020 (the 10.75% Senior Secured Notes Closing Date), American issued \$1.0 billion in initial principal amount of senior secured IP notes (the IP Notes) and \$200 million in initial principal amount of senior secured LGA/DCA notes (the LGA/DCA Notes and together with the IP Notes, the 10.75% Senior Secured Notes). The obligations of American under the 10.75% Senior Secured Notes are fully and unconditionally guaranteed (the 10.75% Senior Secured Notes Guarantees) on a senior unsecured basis by AAG. The 10.75% Senior Secured Notes bear interest at a rate of 10.75% per annum in cash. For any interest period on or prior to September 1, 2022, American may, at its election, pay interest at a rate of 12.00% per annum payable one-half in cash and one-half in kind. Interest on the 10.75% Senior Secured Notes is payable semiannually in arrears on September 1 and March 1 of each year, which began on March 1, 2021. The 10.75% Senior Secured Notes will mature on February 15, 2026.

The 10.75% Senior Secured Notes were each issued pursuant to a separate indenture, dated as of September 25, 2020 (individually, the IP Notes Indenture and the LGA/DCA Notes Indenture and collectively, the 10.75% Senior Secured Notes Indentures), by and among American, AAG and Wilmington Trust, National Association, as trustee and as collateral trustee (the 10.75% Senior Secured Notes Trustee). The IP Notes are secured by a first lien security interest on certain intellectual property of American, including the "American Airlines" trademark and the "aa.com" domain name in the United States and certain foreign jurisdictions (the IP Collateral), and a second lien on certain slots related to American's operations at New York LaGuardia and Ronald Reagan Washington National airports and certain other assets (the LGA/DCA Collateral and together with the IP Collateral, the 10.75% Senior Secured Notes Collateral). Subject to certain conditions, American will be permitted to incur up to \$4.0 billion of additional pari passu debt and unlimited second lien debt secured by the IP Collateral securing the IP Notes. The LGA/DCA Notes are secured by a first lien security interest in the LGA/DCA Collateral. American may be required to pledge additional collateral in the future under the terms of the 10.75% Senior Secured Notes, and in certain circumstances may elect to pledge additional collateral including as a replacement for existing collateral. The LGA/DCA Collateral also secures on a first-lien basis the December 2016 Credit Facilities.

On or prior to the fourth anniversary of the 10.75% Senior Secured Notes Closing Date, American may redeem all or any part of the 10.75% Senior Secured Notes, at its option, at a redemption price equal to 100% of the principal amount of the 10.75% Senior Secured Notes redeemed plus a make whole premium, together with accrued and unpaid interest thereon, if any. After the fourth anniversary of the 10.75% Senior Secured Notes Closing Date and on or prior to the fifth anniversary of the 10.75% Senior Secured Notes Closing Date, American may redeem all or any part of the 10.75% Senior Secured Notes, at its option, at a redemption price equal to 105.375% of the principal amount of the 10.75% Senior Secured Notes redeemed, together with accrued and unpaid interest thereon, if any. After the fifth anniversary of the 10.75% Senior Secured Notes Closing Date, American may redeem all or any part of the 10.75% Senior Secured Notes, at its option, at par, together with accrued and unpaid interest thereon, if any.

In the event of a specified change of control, each holder of 10.75% Senior Secured Notes may require American to repurchase its 10.75% Senior Secured Notes, in whole or in part, at a repurchase price of 101% of the aggregate principal amount of the 10.75% Senior Secured Notes so repurchased, plus accrued and unpaid interest thereon, if any, to (but not including) the repurchase date.

The 10.75% Senior Secured Notes Indentures contain covenants that, among other things, restrict the ability of AAG and the ability of its restricted subsidiaries (including American) to: (i) pay dividends, redeem or repurchase stock or make other distributions or restricted payments, (ii) incur liens on the 10.75% Senior Secured Notes Collateral and dispose of or release the 10.75% Senior Secured Notes Collateral, (iii) repay subordinated indebtedness, (iv) make certain loans and investments, (v) incur indebtedness or issue preferred stock, (vi) merge, consolidate or sell assets, and (vii) designate subsidiaries as unrestricted. In addition, the 10.75% Senior Secured Notes Indentures include covenants that require AAG to maintain (a) an aggregate of at least \$2.0 billion of unrestricted cash and cash equivalents and amounts available to be drawn under revolving credit facilities and (b) a certain minimum ratio of appraised value of the collateral to outstanding debt secured thereby on a first lien basis as further described below in "Certain Covenants." These covenants are subject to a number of important exceptions and qualifications set forth in the 10.75% Senior Secured Notes Indentures.

Upon the occurrence of any event of default (other than certain bankruptcy or insolvency or reorganization events affecting AAG or certain of its subsidiaries, including American), the 10.75% Senior Secured Notes may be declared to be due and payable immediately. Upon the occurrence of

certain bankruptcy, insolvency or reorganization events affecting AAG or certain of its subsidiaries (including American), all outstanding 10.75% Senior Secured Notes will become due and payable immediately without further action or notice on the part of the 10.75% Senior Secured Notes Trustee or any holder of the 10.75% Senior Secured Notes.

(c) Treasury Loan Agreement

On September 25, 2020, American and AAG entered into a Loan and Guarantee Agreement (the Treasury Loan Agreement) with Treasury, which provided for a secured term loan facility (the Treasury Term Loan Facility) that permitted American to borrow up to \$5.5 billion. Subsequently, on October 21, 2020, American and AAG entered into an amendment to the Treasury Loan Agreement, which increased the borrowing amount to up to \$7.5 billion.

In September 2020, American borrowed \$550 million under the Treasury Term Loan Facility, and on March 24, 2021, used proceeds from the AAdvantage Financing to prepay in full the \$550 million of outstanding loans under the Treasury Term Loan Facility and terminated the Treasury Loan Agreement.

(d) AAdvantage Financing

On March 24, 2021 (the AAdvantage Financing Closing Date), American and AAdvantage Loyalty IP Ltd., a Cayman Islands exempted company incorporated with limited liability and an indirect whollyowned subsidiary of American (Loyalty Issuer and, together with American, the AAdvantage Issuers), completed the offering of \$3.5 billion aggregate principal amount of 5.50% Senior Secured Notes due 2026 (the 2026 Notes) and \$3.0 billion aggregate principal amount of 5.75% Senior Secured Notes due 2029 (the 2029 Notes, and together with the 2026 Notes, the AAdvantage Notes). The AAdvantage Notes are fully and unconditionally guaranteed (the AAdvantage Note Guarantees) on a senior unsecured basis by AAG and fully and unconditionally guaranteed on a senior secured basis, jointly and severally, by AAdvantage Holdings 1, Ltd., a Cayman Islands exempted company incorporated with limited liability and a direct wholly-owned subsidiary of American, and AAdvantage Holdings 2, Ltd., a Cayman Islands exempted company incorporated with limited liability and an indirect whollyowned subsidiary of American and the direct parent of Loyalty Issuer (HoldCo2, and together with AAdvantage Holdings 1, Ltd., the Original SPV Guarantors), and as of August 27, 2021, certain Luxembourg limited liability companies and partnerships that are direct or indirect subsidiaries of Loyalty Issuer including Madrid IP Lux HoldCo SCS, a Luxembourg common limited partnership (Madrid IP SCS) (collectively, the Madrid SPV Guarantors and, together with the Original SPV Guarantors, the SPV Guarantors, and the SPV Guarantors together with AAG, the AAdvantage Guarantors). The AAdvantage Notes were issued pursuant to an indenture, dated as of March 24, 2021 (the AAdvantage Indenture), by and among the AAdvantage Issuers, the AAdvantage Guarantors and Wilmington Trust, National Association, as trustee and as collateral custodian.

Concurrent with the issuance of the AAdvantage Notes, the AAdvantage Issuers, as co-borrowers, entered into a term loan credit and guaranty agreement, dated March 24, 2021, with Barclays Bank PLC, as administrative agent, Wilmington Trust, National Association, as collateral administrator, and the lenders party thereto, providing for a \$3.5 billion term loan facility (the AAdvantage Term Loan Facility and collectively with the AAdvantage Notes, the AAdvantage Financing) and pursuant to which the full \$3.5 billion of term loans (the AAdvantage Loans) were drawn on the AAdvantage Financing Closing Date. The AAdvantage Loans are fully and unconditionally guaranteed (together with the AAdvantage Note Guarantees, the AAdvantage Guarantees) by the AAdvantage Guarantors.

Subject to certain permitted liens and other exceptions, the AAdvantage Notes, AAdvantage Loans and AAdvantage Guarantees provided by the SPV Guarantors will be secured by a first-priority security interest in, and pledge of, various agreements with respect to the AAdvantage program (the AAdvantage Agreements) (including all payments thereunder) and certain IP Licenses (as defined below), certain deposit accounts that will receive cash under the AAdvantage Agreements, certain reserve accounts, the equity of each of Loyalty Issuer and the SPV Guarantors and substantially all other assets of Loyalty Issuer and the SPV Guarantors including Transferred AAdvantage IP (as defined below) (collectively, the AAdvantage Collateral).

Payment Terms of the AAdvantage Notes and AAdvantage Loans under the AAdvantage Term Loan Facility

Interest on the AAdvantage Notes is payable in cash, quarterly in arrears on the 20th day of each January, April, July and October (each, an AAdvantage Payment Date), which began on July 20, 2021. The 2026 Notes will mature on April 20, 2026, and the 2029 Notes will mature on April 20, 2029. The outstanding principal on the 2026 Notes will be repaid in quarterly installments of \$292 million on each AAdvantage Payment Date, beginning on July 20, 2023. The outstanding principal on the 2029 Notes will be repaid in quarterly installments of \$250 million on each AAdvantage Payment Date, beginning on July 20, 2026.

The AAdvantage Issuers may redeem the AAdvantage Notes, at their option, in whole at any time or in part from time to time, at a redemption price equal to 100% of the principal amount of the AAdvantage Notes redeemed plus a "make-whole" premium, together with accrued and unpaid interest to the date of redemption.

The scheduled maturity date of the AAdvantage Loans under the AAdvantage Term Loan Facility is April 20, 2028. The AAdvantage Loans bear interest at a variable rate equal to LIBOR (but not less than 0.75% per annum), plus a margin of 4.75% per annum, payable on each AAdvantage Payment Date. The outstanding principal on the AAdvantage Loans will be repaid in quarterly installments of \$175 million, on each AAdvantage Payment Date beginning with the AAdvantage Payment Date in July 2023. These amortization payments (as well as those for the AAdvantage Notes) will be subject to the occurrence of certain early amortization events, including the failure to satisfy a minimum debt service coverage ratio at specified determination dates.

Prepayment of some or all of the AAdvantage Loans outstanding under the AAdvantage Term Loan Facility is permitted, although payment of an applicable premium is required as specified in the AAdvantage Term Loan Facility.

The AAdvantage Indenture and the AAdvantage Term Loan Facility contain mandatory prepayment provisions triggered upon (i) the issuance or incurrence by Loyalty Issuer or the SPV Guarantors of certain indebtedness or (ii) the receipt by American or its subsidiaries of net proceeds from pre-paid frequent flyer (i.e., AAdvantage) mile sales exceeding \$505 million. Each of these prepayments would also require payment of an applicable premium. Certain other events, including the occurrence of a change of control with respect to AAG and certain AAdvantage Collateral sales exceeding a specified threshold, will also trigger mandatory repurchase or mandatory prepayment provisions under the AAdvantage Indenture and the AAdvantage Term Loan Facility, respectively.

Other Terms of the AAdvantage Indenture and the AAdvantage Term Loan Facility

The AAdvantage Indenture and the AAdvantage Term Loan Facility contain certain covenants that limit the ability of Loyalty Issuer, the SPV Guarantors and, in certain circumstances, American and

AAG, to among other things, (i) incur additional indebtedness and make restricted payments, (ii) incur certain liens on the AAdvantage Collateral, (iii) merge, consolidate or sell substantially all of their assets, (iv) dispose of the AAdvantage Collateral, (v) sell pre-paid frequent flyer (i.e. AAdvantage) miles in excess of \$550 million in the aggregate, and (vi) terminate, amend, waive, supplement or modify the IP Licenses, or exercise rights and remedies thereunder, except under certain circumstances. American and Loyalty Issuer are also prohibited from substantially reducing the AAdvantage program business or modifying the terms of the AAdvantage program in a manner that would reasonably be expected to materially impair repayment of the AAdvantage Financing obligations (described as a Payment Material Adverse Effect in each of the AAdvantage Indenture and the AAdvantage Term Loan Facility), and AAG and its subsidiaries are prohibited from changing the policies and procedures of the AAdvantage program in a manner that would reasonably be expected to have a Payment Material Adverse Effect or operating a competing loyalty program. Notwithstanding these restrictions, the AAdvantage program is expected to operate as it has in the past, and the entry into the AAdvantage Financing is not expected to have any impact on the benefits offered to AAdvantage members.

The AAdvantage Indenture and the AAdvantage Term Loan Facility also require the AAdvantage Issuers to comply with certain affirmative covenants, including the requirement to use commercially reasonable efforts to cause sufficient counterparties to AAdvantage Agreements to direct at least 90% of payments with respect to the AAdvantage program on a quarterly basis into a collections account, for application to the payment of fees, principal and interest on the AAdvantage Notes and the AAdvantage Loans pursuant to a payment waterfall described in the AAdvantage Indenture and the AAdvantage Term Loan Facility, respectively. In addition, the AAdvantage Indenture and the AAdvantage Term Loan Facility require AAG to maintain minimum liquidity, defined as the sum of (a) unrestricted cash and cash equivalents and (b) the aggregate principal amount committed and available to be drawn under all of AAG's revolving credit and other facilities, at the close of any business day of at least \$2.0 billion.

Subject to certain materiality thresholds, qualifications, exceptions, "baskets" and grace and cure periods, the AAdvantage Indenture and the AAdvantage Term Loan Facility contain various events of default, including payment defaults, covenant defaults, cross-defaults to certain other indebtedness, termination of certain agreements related to the AAdvantage program, bankruptcy events of Loyalty Issuer or any SPV Guarantor, and a change of control of Loyalty Issuer or any SPV Guarantor. A bankruptcy event of American is not itself an event of default; following an American bankruptcy, an event of default would only occur if American failed to satisfy certain enumerated bankruptcy case milestones, including an assumption of the AAdvantage Financing by a certain date. Upon the occurrence of an event of default, the outstanding obligations under the AAdvantage Indenture and the AAdvantage Term Loan Facility may (or, with respect to the bankruptcy events noted above, shall) be accelerated and become due and payable immediately.

Terms of Certain Intercompany Agreements Related to the AAdvantage Financing

In connection with the issuance of the AAdvantage Notes and entry into the AAdvantage Term Loan Facility, American, Loyalty Issuer and the SPV Guarantors entered into a series of transactions that resulted in the transfer to Loyalty Issuer or Madrid IP SCS of, among other things, American's rights to certain data and other intellectual property used in the AAdvantage program (subject to certain exceptions) (such assets, the Transferred AAdvantage IP) and certain rights of American under specified AAdvantage Agreements. Loyalty Issuer, the SPV Guarantors and American have entered into a series of intercompany license agreements (collectively, the IP Licenses) pursuant to which Loyalty Issuer has indirectly granted to American an exclusive, irrevocable (subject to certain

termination rights), perpetual, worldwide, royalty-bearing sublicense to use the Transferred AAdvantage IP. The IP Licenses would be terminated, and American's right to use the Transferred AAdvantage IP would cease, upon specified termination events, including, but not limited to, the occurrence of an event of default under the AAdvantage Indenture or the AAdvantage Term Loan Facility. In certain circumstances, such a termination would trigger a liquidated damages payment in an amount that is greater than the initial principal amount of the AAdvantage Notes and the AAdvantage Loans.

In addition, proceeds from the AAdvantage Financing were loaned by Loyalty Issuer to American pursuant to an intercompany note that was guaranteed by AAG. The borrowings under this intercompany note are payable on demand by Loyalty Issuer or, after the occurrence and during the continuance of an event of default under the AAdvantage Financing, by the master collateral agent under the AAdvantage Financing.

(e) EETCs

2021-1 Aircraft EETCs

In November 2021, American created two pass-through trusts which issued approximately \$960 million aggregate face amount of Series 2021-1 Class A and Class B EETCs (the 2021-1 Aircraft EETCs) in connection with the financing of 26 aircraft previously delivered or to be delivered to American through September 2022 (the 2021-1 Aircraft). As of December 31, 2021, approximately \$94 million of the proceeds had been used to purchase equipment notes issued by American in connection with the financing of five aircraft under the 2021-1 Aircraft EETCs, all of which was used to repay existing indebtedness. Interest and principal payments on equipment notes issued in connection with the 2021-1 Aircraft EETCs are payable semi-annually in January and July each year, with interest payments scheduled to begin in July 2022 and with principal payments scheduled to begin in January 2023. The remaining proceeds of approximately \$866 million as of December 31, 2021 were being held in escrow with a depositary for the benefit of the holders of the 2021-1 Aircraft EETCs until such time as American issues additional equipment notes with respect to the remaining 2021-1 Aircraft to the pass-through trusts, which will purchase such additional equipment notes with the escrowed funds. These escrowed funds are not guaranteed by American and are not reported as debt on its consolidated balance sheet because the proceeds held by the depositary for the benefit of the holders of the 2021-1 Aircraft EETCs are not American's assets.

Certain information regarding the 2021-1 Aircraft EETC equipment notes, as of December 31, 2021, is set forth in the table below.

	2021-1 Aircraft EETCs	
	Series A	Series B
Aggregate principal issued	\$758 million	\$202 million
Remaining escrowed proceeds	\$684 million	\$182 million
Fixed interest rate per annum	2.875%	3.95%
Maturity date	July 2034	July 2030

(f) Special Facility Revenue Bonds

In January 2020, American and British Airways announced the start of construction projects to upgrade New York's JFK Terminal 8 (the Terminal). The construction project is currently scheduled to be completed in 2023 and is estimated to cost \$439 million, of which \$298 million was funded with

proceeds of the special facility revenue bonds issued by the New York Transportation Development Corporation (NYTDC) on behalf of American in June 2020 (the 2020 JFK Bonds) and approximately \$84 million of which was funded with proceeds of the approximately \$150 million of special facility revenue bonds NYTDC issued in June 2021 (the 2021 JFK Bonds).

American is required to pay debt service on the 2021 JFK Bonds through payments under a loan agreement with NYTDC (as amended), and American and AAG guarantee the 2021 JFK Bonds. American continues to pay debt service on the outstanding bonds issued by NYTDC on behalf of American in 2016 and 2020 (the 2016 and 2020 JFK Bonds) and American and AAG continue to guarantee the 2016 and 2020 JFK Bonds. American's and AAG's obligations under these guarantees are secured by a leasehold mortgage on American's lease of the Terminal and related property from the Port Authority of New York and New Jersey.

The 2021 JFK Bonds, in aggregate, were priced at par value. The gross proceeds from the issuance of the 2021 JFK Bonds were approximately \$150 million. Of this amount, \$4 million was used to fund the costs of issuance of the 2021 JFK Bonds, \$62 million was used to fund the redemption of the 2016 and 2020 JFK Bonds due August 2021, with the remaining amount of proceeds received to be held in restricted cash and short-term investments on the consolidated balance sheet and to be used to finance a portion of the cost of the renovation and expansion of the Terminal. The 2021 JFK Bonds are comprised of term bonds, \$70 million of which bear interest at 2.25% per annum and mature on August 1, 2026, and \$80 million of which bear interest at 3.00% per annum and mature on August 1, 2031. As of December 31, 2021, \$236 million of proceeds funded by the issuance of the 2020 and 2021 JFK Bonds are included in restricted cash and short-term investments on the accompanying consolidated balance sheet.

(g) PSP Promissory Notes

PSP1 Promissory Note

On April 20, 2020 (the PSP1 Closing Date), as partial compensation to the U.S. Government for the provision of financial assistance under the PSP1 Agreement, AAG issued a promissory note (the PSP1 Promissory Note) to Treasury, which provides for our unconditional promise to pay to Treasury the principal sum of \$1.8 billion, and the guarantee of our obligations under the PSP1 Promissory Note by the Subsidiaries.

The PSP1 Promissory Note bears interest on the outstanding principal amount at a rate equal to 1.00% per annum until the fifth anniversary of the PSP1 Closing Date and 2.00% plus an interest rate based on the secured overnight financing rate (SOFR) per annum or other benchmark replacement rate consistent with customary market conventions (but not to be less than 0.00%) thereafter until the tenth anniversary of the PSP1 Closing Date (the PSP1 Maturity Date), and interest accrued thereon will be payable in arrears on the last business day of March and September of each year, which began on September 30, 2020. The aggregate principal amount outstanding under the PSP1 Promissory Note, together with all accrued and unpaid interest thereon and all other amounts payable under the PSP1 Promissory Note, will be due and payable on the PSP1 Maturity Date.

We may, at any time and from time to time, voluntarily prepay amounts outstanding under the PSP1 Promissory Note, in whole or in part, without penalty or premium. Within 30 days of the occurrence of certain change of control triggering events, we are required to prepay the aggregate outstanding principal amount of the PSP1 Promissory Note at such time, together with any accrued interest or other amounts owing under the PSP1 Promissory Note at such time.

The PSP1 Promissory Note is our senior unsecured obligation and each guarantee of the PSP1 Promissory Note is the senior unsecured obligation of each of the Subsidiaries, respectively.

The PSP1 Promissory Note contains events of default, including cross-default with respect to acceleration or failure to pay at maturity other material indebtedness. Upon the occurrence of an event of default and subject to certain grace periods, the outstanding obligations under the PSP1 Promissory Note may, and in certain circumstances will automatically, be accelerated and become due and payable immediately.

PSP2 Promissory Note

As partial compensation to the U.S. Government for the provision of financial assistance under the PSP2 Agreement, AAG issued the PSP2 Promissory Note to Treasury, which provides for our unconditional promise to pay to Treasury the principal sum of \$1.0 billion, and the guarantee of our obligations under the PSP2 Promissory Note by the Subsidiaries.

The PSP2 Promissory Note bears interest on the outstanding principal amount at a rate equal to 1.00% per annum until the fifth anniversary of the PSP2 Closing Date and 2.00% plus an interest rate based on SOFR per annum or other benchmark replacement rate consistent with customary market conventions (but not to be less than 0.00%) thereafter until the tenth anniversary of the PSP2 Closing Date (the PSP2 Maturity Date), and interest accrued thereon will be payable in arrears on the last business day of March and September of each year, which began on March 31, 2021. The aggregate principal amount outstanding under the PSP2 Promissory Note, together with all accrued and unpaid interest thereon and all other amounts payable under the PSP2 Promissory Note, will be due and payable on the PSP2 Maturity Date.

We may, at any time and from time to time, voluntarily prepay amounts outstanding under the PSP2 Promissory Note, in whole or in part, without penalty or premium. Within 30 days of the occurrence of certain change of control triggering events, we are required to prepay the aggregate outstanding principal amount of the PSP2 Promissory Note, together with any accrued interest or other amounts owing under the PSP2 Promissory Note at such time.

The PSP2 Promissory Note is our senior unsecured obligation and each guarantee of the PSP2 Promissory Note is the senior unsecured obligation of each of the Subsidiaries, respectively.

The PSP2 Promissory Note contains events of default, including cross-default with respect to acceleration or failure to pay at maturity other material indebtedness. Upon the occurrence of an event of default and subject to certain grace periods, the outstanding obligations under the PSP2 Promissory Note may, and in certain circumstances will automatically, be accelerated and become due and payable immediately.

PSP3 Promissory Note

As partial compensation to the U.S. Government for the provision of financial assistance under the PSP3 Agreement, AAG issued the PSP3 Promissory Note to Treasury, which provides for our unconditional promise to pay to Treasury the principal sum of \$946 million, and the guarantee of our obligations under the PSP3 Promissory Note by the Subsidiaries.

The PSP3 Promissory Note bears interest on the outstanding principal amount at a rate equal to 1.00% per annum until the fifth anniversary of the PSP3 Closing Date and 2.00% plus an interest rate

based on SOFR per annum or other benchmark replacement rate consistent with customary market conventions (but not to be less than 0.00%) thereafter until the tenth anniversary of the PSP3 Closing Date (the PSP3 Maturity Date), and interest accrued thereon will be payable in arrears on the last business day of March and September of each year, which began on September 30, 2021. The aggregate principal amount outstanding under the PSP3 Promissory Note, together with all accrued and unpaid interest thereon and all other amounts payable under the PSP3 Promissory Note, will be due and payable on the PSP3 Maturity Date.

We may, at any time and from time to time, voluntarily prepay amounts outstanding under the PSP3 Promissory Note, in whole or in part, without penalty or premium. Within 30 days of the occurrence of certain change of control triggering events, we are required to prepay the aggregate outstanding principal amount of the PSP3 Promissory Note, together with any accrued interest or other amounts owing under the PSP3 Promissory Note at such time.

The PSP3 Promissory Note is our senior unsecured obligation and each guarantee of the PSP3 Promissory Note is the senior unsecured obligation of each of the Subsidiaries, respectively.

The PSP3 Promissory Note contains events of default, including cross-default with respect to acceleration or failure to pay at maturity other material indebtedness. Upon the occurrence of an event of default and subject to certain grace periods, the outstanding obligations under the PSP3 Promissory Note may, and in certain circumstances will automatically, be accelerated and become due and payable immediately.

(h) 6.50% Convertible Senior Notes

In June 2020, AAG completed the public offering of \$1.0 billion aggregate principal amount of AAG's 6.50% convertible senior notes due 2025 (the Convertible Notes). The Convertible Notes are fully and unconditionally guaranteed by American on a senior unsecured basis (the Convertible Notes Guarantee). The net proceeds to us from the Convertible Notes were approximately \$970 million, after deducting the underwriters' discounts and commissions and our estimated offering expenses. The Convertible Notes were priced to investors in the offering at 100% of their principal amount.

The Convertible Notes were issued pursuant to an indenture, dated as of June 25, 2020 (the Base Indenture), between AAG and Wilmington Trust, National Association as trustee (the Convertible Notes Trustee), as supplemented by that certain first supplemental indenture, dated as of June 25, 2020, among AAG, American and the Convertible Notes Trustee (the Convertible Notes Supplemental Indenture and, together with the Base Indenture, the Convertible Notes Indenture). The Convertible Notes bear interest at a rate of 6.50% per annum. Interest on the Convertible Notes is payable semiannually in arrears on January 1 and July 1 of each year, which began on January 1, 2021. The Convertible Notes will mature on July 1, 2025, unless earlier converted or redeemed or repurchased by us.

Upon conversion, AAG will pay or deliver, as the case may be, cash, shares of AAG common stock or a combination of cash and shares of AAG common stock, at AAG's election. The initial conversion rate is 61.7284 shares of AAG common stock per \$1,000 principal amount of Convertible Notes (equivalent to an initial conversion price of approximately \$16.20 per share of AAG common stock). The conversion rate is subject to adjustment in some events as described in the Convertible Notes Indenture.

Holders may convert their Convertible Notes at their option only in the following circumstances: (1) during any calendar quarter (and only during such calendar quarter) commencing after the calendar quarter ending on September 30, 2020, if the last reported sale price per share of AAG common stock exceeds 130% of the conversion price for each of at least 20 trading days (whether or not consecutive) during the 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter; (2) during the five consecutive business days immediately after any 10 consecutive trading day period (such 10 consecutive trading day period, the measurement period) in which the trading price per \$1,000 principal amount of Convertible Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price per share of AAG common stock on such trading day and the conversion rate on such trading day; (3) upon the occurrence of certain corporate events or distributions on AAG common stock; (4) if AAG calls such Convertible Notes for redemption; and (5) at any time from, and including, April 1, 2025 until the close of business on the scheduled trading day immediately before the maturity date of the Convertible Notes.

In addition, following certain corporate events that occur prior to the maturity date or upon AAG's issuance of a notice of redemption, AAG will increase the conversion rate for a holder who elects to convert its Convertible Notes in connection with such corporate event or during the related redemption period in certain circumstances by a specified number of shares of AAG common stock as described in the Convertible Notes Indenture.

AAG will not have the right to redeem the Convertible Notes prior to July 5, 2023. On or after July 5, 2023 and on or before the 20th scheduled trading day immediately before the maturity date, AAG may redeem the Convertible Notes, in whole or in part, if the last reported sale price of AAG common stock has been at least 130% of the conversion price then in effect on (1) each of at least 20 trading days (whether or not consecutive) during the 30 consecutive trading days ending on, and including, the trading day immediately before the date AAG sends the related redemption notice; and (2) the trading day immediately before the date AAG sends such notice. In the case of any optional redemption, AAG will redeem the Convertible Notes at a redemption price equal to 100% of the principal amount of such Convertible Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

If AAG undergoes a fundamental change described in the Convertible Notes Indenture prior to the maturity date of the Convertible Notes, except as described in the Convertible Notes Indenture, holders of the Convertible Notes may require AAG to repurchase for cash all or part of their Convertible Notes at a repurchase price equal to 100% of the principal amount of the Convertible Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The Convertible Notes Indenture provides for customary terms and covenants, including that upon certain events of default, either the Convertible Notes Trustee or the holders of not less than 25% in aggregate principal amount of the Convertible Notes then outstanding may declare the unpaid principal amount of the Convertible Notes and accrued and unpaid interest, if any, thereon immediately due and payable. In the case of certain events of bankruptcy, insolvency or reorganization, the principal amount of the Convertible Notes together with accrued and unpaid interest thereon, if any, will automatically become and be immediately due and payable.

As previously discussed in Note 1(c), as of January 1, 2021, we early adopted the New Convertible Debt Standard. Accordingly, our unamortized debt discount as of January 1, 2021 was reduced by \$389 million, increasing the liability and decreasing the effective interest rate on the Convertible Notes

from approximately 20% at December 31, 2020 to approximately 7% at December 31, 2021. We recognized \$70 million of interest expense in 2021 including \$5 million of non-cash amortization of the debt discount and \$65 million of contractual coupon interest. As of December 31, 2021, our unamortized debt discount on the Convertible Notes was \$22 million.

At December 31, 2021, the if-converted value of the Convertible Notes exceeded the principal amount by \$114 million. The last reported sale price per share of our common stock (as defined in the Convertible Notes Indenture) did not exceed 130% of the conversion price of the Convertible Notes for at least 20 of the 30 consecutive trading days ending on December 31, 2021. Accordingly, pursuant to the terms of the Convertible Notes Indenture, the holders of the Convertible Notes cannot convert at their option at any time during the quarter ending March 31, 2022. Each \$1,000 principal amount of Convertible Notes is convertible at a rate of 61.7284 shares of our common stock, subject to adjustment as provided in the Convertible Notes Indenture. We may settle conversions by paying or delivering, as applicable, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election.

(i) Unsecured Senior Notes

5.000% Senior Notes

In May 2019, AAG issued \$750 million aggregate principal amount of 5.000% senior notes due 2022 (the 5.000% Senior Notes). The 5.000% Senior Notes bear interest at a rate of 5.000% per annum, payable semi-annually in arrears on June 1 and December 1 of each year, which began on December 1, 2019. The 5.000% Senior Notes mature in June 2022.

3.75% Senior Notes

In February 2020, AAG issued \$500 million aggregate principal amount of 3.75% senior notes due 2025 (the 3.75% Senior Notes). The 3.75% Senior Notes bear interest at a rate of 3.75% per annum, payable semiannually in arrears in March and September of each year, which began in September 2020. The 3.75% Senior Notes mature in March 2025.

The details of our 5.000% and 3.75% Senior Notes are shown in the table below as of December 31, 2021:

	5.000% Senior Notes	3.75% Senior Notes
Aggregate principal issued and outstanding	\$750 million	\$500 million
Maturity date	June 2022	March 2025
Fixed interest rate per annum	5.000%	3.75%
Interest payments	Semi-annually in	Semi-annually in
	arrears in June and	arrears in March
	December	and September

The 5.000% and 3.75% Senior Notes are senior unsecured obligations of AAG. These Senior Notes are fully and unconditionally guaranteed by American. The indentures for these 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 these Senior Notes in whole or in part at a price of 101% of the principal amount plus accrued and unpaid interest thereon, if any, to (but not including) the repurchase date. Upon the occurrence of certain events of default, these Senior Notes may be accelerated and become due and payable.

Guarantees

As of December 31, 2021, AAG had issued guarantees covering approximately \$19.8 billion of American's secured debt (and interest thereon), including the Credit Facilities, the AAdvantage Financing, certain EETC financings and \$1.1 billion of American's special facility revenue bonds (and interest thereon).

Certain Covenants

Certain of our debt financing agreements (including our secured notes, term loans, revolving credit facilities and spare engine EETCs) contain loan to value (LTV), collateral coverage or peak debt service coverage ratio covenants and certain agreements require us to appraise the related collateral annually or semiannually. Pursuant to such agreements, if the applicable LTV, collateral coverage or peak debt service coverage ratio exceeds or falls below a specified threshold, as the case may be, we will be required, as applicable, to pledge additional qualifying collateral (which in some cases may include cash or investment securities), withhold additional cash in certain accounts, or to pay down such financing, in whole or in part, or the interest rate for the relevant financing will be increased. Additionally, a significant portion of our debt financing agreements 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, and our AAdvantage Financing contains a peak debt service coverage ratio, pursuant to which failure to comply with a certain threshold may result in early repayment, in whole or in part, of the AAdvantage Financing.

Specifically, we are required to meet certain collateral coverage tests for our Credit Facilities, 10.75% Senior Secured Notes and 11.75% Senior Secured Notes, as described below:

	2013 Credit Facilities	2014 Credit Facilities	April 2016 Credit Facilities	December 2016 Credit Facilities	10.75% Senior Secured Notes	11.75% Senior Secured Notes
Frequency of Appraisals of Appraised Collateral	Annual	Annual	Annual	Annual	Annual	Semi-Annual
LTV Requirement LTV as of Last Measurement Date	38.4%	1.6x Collateral V 18.0%	Not Applicable	nt of debt outstand 53.5%	53.5%	33.5%
Collateral Description	Generally, certain slots, route authorities and airport gate leasehold rights used by	aurnorities and airport gate leasehold rights used by American to operate certain services between the LLS and	Generally, certain spare parts	Generally, certain Ronald Reagan Washington National Airport (DCA) slots, certain LaGuardia Airport (LGA) slots, certain simulators and certain leasehold rights	Generally, certain DCA slots, certain LGA slots, certain simulators and certain leasehold rights and, in the case of the IP Notes, certain intellectual property of American	Generally, certain slots, route authorities and airport gate leasehold rights used by American to operate certain services between the U.S. and the Caribbean, Central America and various other countries

At December 31, 2021, we were in compliance with the applicable collateral coverage tests as of the most recent measurement dates.

5. Leases

We lease certain aircraft and engines, including aircraft under capacity purchase agreements. As of December 31, 2021, we operated 696 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. Because of the variable nature of these rates, these leases are not recorded on our consolidated balance sheets as a ROU asset or a lease liability. 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,		
	2021	2020	2019
Operating lease cost	\$2,012	\$1,957	\$2,027
Finance lease cost:			
Amortization of assets	107	92	79
Interest on lease liabilities	44	38	43
Variable lease cost	2,471	1,801	2,558
Total net lease cost	\$4,634	\$3,888	\$4,707

Included in the table above is \$190 million, \$172 million and \$236 million of operating lease cost under our capacity purchase agreement with Republic for the years ended December 31, 2021, 2020 and 2019, respectively. We hold a 25% equity interest in Republic Holdings, the parent company of Republic.

Additionally, not included in the table above, we recognized \$109 million in cash special charges in 2020 related to the impairment of ROU assets and lease return costs resulting from our decision to retire certain leased aircraft earlier than planned driven by the severe decline in air travel due to the COVID-19 pandemic.

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

	December 31	
	2021	2020
Operating leases: Operating lease ROU assets Current operating lease liabilities	\$1,507	\$8,039 \$1,651
Noncurrent operating lease liabilities	6,610	6,777
Total operating lease liabilities	\$8,117	\$8,428
Finance leases: Property and equipment, at cost Accumulated amortization Property and equipment, net	\$1,201 (653) \$ 548	\$1,021 (539) \$ 482

	December 31,		31,	
	2	2021	_ 2	2020
Current finance lease liabilities	\$	174 563	\$	100 472
Total finance lease liabilities	\$	737	\$	572
Weighted average remaining lease term (in years):				
Operating leases		7.6		7.4
Finance leases		4.6		5.4
Weighted average discount rate:				
Operating leases		6.3%		5.6%
Finance leases		6.1%)	6.3%

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

	Year Ended December 31		
	2021	2020	2019
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	\$2,053	\$2,028	\$2,013
Operating cash flows from finance leases	37	39	43
Financing cash flows from finance leases	126	114	83
Non-cash transactions:			
ROU assets acquired through operating leases	1,386	917	1,145
Property and equipment acquired through finance leases	180	11	20
Operating lease conversion to finance lease	102	5	41
Gain on sale leaseback transactions, net	25	107	107

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

	December 31, 2021		
	Operating Leases	Finance Leases	
2022	\$ 1,929	\$ 215	
2023	1,791	183	
2024	1,410	180	
2025	1,039	113	
2026	762	87	
2027 and thereafter	3,614	77	
Total lease payments	10,545	855	
Less: Imputed interest	(2,428)	(118)	
Total lease obligations	8,117	737	
Less: Current obligations	_(1,507)	(174)	
Long-term lease obligations	\$ 6,610	\$ 563	

As of December 31, 2021, we had additional operating lease commitments that have not yet commenced of approximately \$1.8 billion for 18 Boeing 787 Family aircraft scheduled to be delivered in 2022 through 2024 with lease terms of 10 years.

6. Income Taxes

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

	Year Ended December 31,		
	2021	2020	2019
Current income tax provision:			
State and Local	\$ —	\$ —	\$ 2
Foreign			8
Current income tax provision			10
Deferred income tax provision (benefit):			
Federal	(508)	(2,335)	498
State and Local	(47)	(233)	62
Deferred income tax provision (benefit)	(555)	(2,568)	560
Total income tax provision (benefit)	<u>\$(555)</u>	\$(2,568)	\$570

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

	Year Ended December 31,		
	2021	2020	2019
Statutory income tax provision (benefit)	\$(535)	\$(2,405)	\$474
State income tax provision (benefit), net of federal tax effect	(37)	(183)	47
Book expenses not deductible for tax purposes	23	22	31
Foreign income taxes, net of federal tax effect	_	_	8
Change in valuation allowance	_	_	4
Other, net	(6)	(2)	6
Income tax provision (benefit)	<u>\$(555</u>)	\$(2,568)	\$570

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

	December 31,		
	2021	2020	
Deferred tax assets:			
Operating loss and other carryforwards	\$ 4,612	\$ 4,027	
Loyalty program liability	1,903	1,977	
Leases	1,833	1,913	
Pensions	941	1,405	
Postretirement benefits other than pensions	214	203	
Rent expense	92	96	
Reorganization items	24	28	
Other	760	847	
Total deferred tax assets	10,379	10,496	
Valuation allowance	(34)	(34)	
Net deferred tax assets	10,345	10,462	

December 31,		
2021	2020	
(4,747)	(5,028)	
(1,767)	(1,818)	
(284)	(386)	
(6,798)	(7,232)	
\$ 3,547	\$ 3,230	
	(4,747) (1,767) (284) (6,798)	

At December 31, 2021, we had approximately \$17.2 billion of gross federal net operating losses (NOLs) and \$3.0 billion of other carryforwards available to reduce future federal taxable income, of which \$6.9 billion will expire beginning in 2024 if unused and \$13.3 billion can be carried forward indefinitely. We also had approximately \$6.0 billion of NOL carryforwards to reduce future state taxable income at December 31, 2021, which will expire in taxable years 2021 through 2041 if unused.

Our ability to use our NOLs and other carryforwards depends on the amount of taxable income generated in future periods. We provide a valuation allowance for our deferred tax assets, which include our NOLs, when it is more likely than not that some portion, or all of our deferred tax assets, will not be realized. 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 availability and price volatility of aircraft fuel and travel demand. We presently have a \$34 million valuation allowance on certain net deferred tax assets related to state NOL carryforwards. There can be no assurance that an additional valuation allowance on our net deferred tax assets will not be required. Such valuation allowance could be material.

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. 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 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 our future use of NOLs and tax credits.

In 2021, we recorded an income tax benefit of \$555 million, with an effective rate of approximately 22%, which was substantially non-cash. Substantially all of our loss 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 2018 through 2020 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.

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.

7. Risk Management

Our economic prospects are heavily dependent upon two variables we cannot control: general economic conditions 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 strong negative effect on our business. In particular, the ongoing COVID-19 pandemic and associated decline in economic activity and increase in unemployment levels have had and are expected to continue to have a severe and prolonged effect on the global economy generally and, in turn, is expected to depress demand for air travel into the foreseeable future. Due to the uncertainty surrounding the duration and severity of this pandemic, we can provide no assurance as to when and at what pace demand for air travel will return to pre-COVID-19 pandemic levels, if at all. Accordingly, we cannot predict the ultimate impact of the COVID-19 pandemic on our business, financial condition and results of operations. 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. Aircraft fuel prices have in the past, and may in the future, experience substantial volatility. Because of the amount of fuel needed to operate our business, even a relatively small increase or decrease in the price of aircraft 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

Our accounts receivable relate primarily to our contracts with airline and non-airline business partners, including our co-branded credit card partners, and to tickets sold to individual passengers primarily through the use of major credit cards. Receivables from our business partners are typically settled within 30 days. Receivables from ticket sales are short-term, mostly settled within seven days after sale. All accounts receivable are reported net of an allowance for credit losses, which have been minimal. We consider past and future financial and qualitative factors when establishing the allowance for credit losses. 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 LIBOR variable-rate debt obligations. Interest rates on \$10.9 billion principal amount of long-term debt as of December 31, 2021 are subject to adjustment to reflect changes in floating interest rates. The weighted average effective interest rate on our variable-rate debt was 3.0% at December 31, 2021. We currently do not have an interest rate hedge program to hedge our exposure to floating interest rates on our variable-rate debt obligations.

On July 27, 2017, the U.K. 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. The discontinuation date for submission and publication of rates for certain tenors of USD LIBOR (1-month, 3-month, 6-month, and 12-month) was subsequently extended by the ICE Benchmark Administration (the administrator of LIBOR) until June 30, 2023. It is unclear whether new methods of

calculating LIBOR will be established such that it continues to exist after 2023. Similarly, it is not possible to predict whether LIBOR will continue to be viewed as an acceptable market benchmark, what rate or rates may become acceptable alternatives to LIBOR, or what effect these changes in views or alternatives may have on financial markets for LIBOR-linked financial instruments. The replacement of LIBOR with a comparable or successor rate could cause the amount of interest payable on our long-term debt to be different or higher than expected.

(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 transactions. Our largest exposure comes from the British pound sterling, Euro, Chinese yuan, Canadian dollar and various Latin American currencies, primarily the Brazilian real. We do not currently have a foreign currency hedge program.

8. 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, 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 the fair value of 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, restricted cash and restricted 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, 2021.

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

	Fair Value Measurements as of December 31, 2021				
	Total	Level 1	Level 2	Level 3	
Short-term investments (1), (2): Money market funds	\$ 108 8,665 2,195 1,190	\$ 108 — —	\$ — 8,665 2,195 1,190	\$ <u></u>	
Restricted cash and short-term investments (1), (3) Long-term investments (4)	12,158 990 239 \$13,387	108 654 239 \$1,001	12,050 336 — \$12,386	<u>-</u> <u>-</u> <u>\$</u>	
	Fair Value M	easurements	as of Decemb	er 31, 2020	
	Total	Level 1	Level 2	Level 3	
Short-term investments (1): Money market funds	\$ 247 3,449 2,168 755 6,619	\$247 — — — — 247	\$ — 3,449 2,168 —755 6,372	\$— — —	
Restricted cash and short-term investments (1), (3)	609	448	161	_	

161

\$7.389

161

\$856

\$6.533

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 except for \$3.7 billion and \$2.3 billion as of December 31, 2021 and December 31, 2020, respectively, which would have been classified as Level 3 in the fair value hierarchy. The fair value of the Convertible Notes, which would have been classified as Level 2, was \$1.4 billion and \$1.2 billion as of December 31, 2021 and December 31, 2020, respectively.

⁽¹⁾ All short-term investments are classified as available-for-sale and stated at fair value. Unrealized gains and losses are recorded in accumulated other comprehensive loss at each reporting period. There were no credit losses.

⁽²⁾ Our short-term investments as of December 31, 2021 mature in one year or less.

⁽³⁾ Restricted cash and short-term investments primarily include collateral held to support workers' compensation obligations and money market funds to be used to finance a substantial portion of the cost of the renovation and expansion of the Terminal at JFK, and as of December 31, 2021, also include collateral associated with the payment of interest for the AAdvantage Financing.

⁽⁴⁾ Long-term investments primarily include our equity investment in China Southern Airlines and as of December 31, 2021, our long-term investments also include Vertical. These investments are reflected in other assets on our consolidated balance sheets. See "Other Investments" below for further information on our equity investments.

The carrying value and estimated fair value of our long-term debt, including current maturities, were as follows (in millions):

	Decembe	r 31, 2021	December 31, 2020		
	Carrying Value	Fair Value	Carrying Value	Fair Value	
Long-term debt, including current maturities	\$37,323	\$38,567	\$32,021	\$30,454	

Other Investments

An important part of our strategy to expand our network has been to initiate or expand our commercial relationships with other airlines, such as by entering into global alliance, joint business and codeshare relationships, and, in certain instances, by making an equity investment in another airline or other companies.

Republic Holdings

We have an approximate 25% ownership interest in Republic Holdings, which we received in 2017 in consideration for our unsecured claim in the Republic Holdings bankruptcy case. This ownership interest is accounted for under the equity method and our portion of Republic Holdings' financial results is recognized within nonoperating other income, net on the consolidated statements of operations and the investment is reflected within other assets on our consolidated balance sheets.

China Southern

In the third quarter of 2017, we acquired 2.7% of the outstanding shares of China Southern for \$203 million. At December 31, 2021, we owned a 1.8% equity interest in China Southern. This ownership interest is accounted for at fair value based on China Southern's stock price and mark-to-market adjustments are recorded to nonoperating other income, net on the consolidated statement of operations.

Vertical

In the fourth quarter of 2021, we invested \$25 million to acquire 5.4%, or 11.25 million, of the outstanding shares of Vertical with an initial aggregate value of \$113 million, of which \$88 million was non-cash. In connection with this investment, we entered into a memorandum of understanding (MOU) with Vertical to pre-order (subject to certain conditions and future agreed upon milestones) up to 250 electric vertical take-off and landing (eVTOL) aircraft, with an option to order an additional 100 eVTOL aircraft. Pursuant to the MOU, we received warrants to purchase 1.75 million shares of Vertical common stock at \$0.0001 per share, each time we place a legally binding commitment for 50 eVTOL aircraft, up to a maximum aggregate amount of 8.75 million shares. Our investment in Vertical is reflected within other assets on our consolidated balance sheet. The \$88 million non-cash portion of the fair value of equity securities received from Vertical is included as a deferred credit within other liabilities on the consolidated balance sheet and will be recognized as a reduction to the cost of eVTOL aircraft received in future periods or, if no legally binding commitment for eVTOL aircraft is entered into, will be recognized into income. Our investment in Vertical is accounted for at fair value based on Vertical's stock price and mark-to-market adjustments are recorded to nonoperating other income, net on the consolidated statement of operations.

9. 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 was included as a component of prior service benefit in accumulated other comprehensive income (loss) (AOCI) and was amortized over the future service life of the active plan participants for whom the benefit was eliminated. This prior service benefit was fully amortized as of December 31, 2020.

Effective January 1, 2021, health coverage under our retiree medical benefit program that is currently provided to certain retirees age 65 and over who retired prior to November 1, 2012, transitioned from a self-insured plan to a fully-insured Medicare Advantage plan. Benefits coverage has not been reduced and cost shared has not changed as a result of this transition. Due to this transition, as of December 31, 2020, we recognized a negative plan amendment of \$313 million to reduce our benefit obligation, which was included as a component of prior service cost in AOCI and will be amortized over the average remaining life expectancy of all retirees, or approximately 13 years. As of December 31, 2021, \$195 million of prior service cost 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, 2021 and 2020:

	Pension	Benefits	Retiree Medic Postretireme	
	2021 2020		2021	2020
			millions)	
Benefit obligation at beginning of period		\$18,358	\$1,046	\$ 824
Service cost	4	2	12	8
Interest cost		615	30	30
Actuarial (gain) loss (1), (2)	(609)	1,613	(57)	46
Special termination benefits (3)		_	139	410
Plan amendments (4)	_	_	_	(195)
Settlements	(1)			.—.
Benefit payments	(822)	(740)	(72)	(77)
Benefit obligation at end of period	\$18,910	\$19,812	\$1,098	\$1,046
Fair value of plan assets at beginning of period	\$13,557	\$12,897	\$ 170	\$ 204
Actual return on plan assets		1,427	21	13
Employer contributions (5)	247	9	48	30
Settlements	(1)	(36)	_	_
Benefit payments	(822)	(740)	(72)	(77)
Fair value of plan assets at end of period	\$14,691	\$13,557	\$ 167	\$ 170
Funded status at end of period	\$ (4,219)	\$ (6,255)	\$ (931)	\$ (876)

- The 2021 and 2020 pension actuarial (gain) loss primarily relates to the change in our weighted average discount rate assumption.
- The 2021 and 2020 retiree medical and other postretirement benefits actuarial (gain) loss primarily relates to the change in our weighted average discount rate assumption and, in 2021, plan experience adjustments.
- (3) During the first quarter of 2021 and the third quarter of 2020, we remeasured our retiree medical and other postretirement benefits to account for enhanced healthcare benefits provided to eligible team members who opted into voluntary early retirement programs offered as a result of reductions to our operation due to the COVID-19 pandemic. As a result, during 2021, we recognized a \$139 million special charge for these enhanced healthcare benefits and increased our postretirement benefits obligation by \$139 million, and during 2020, we recognized a \$410 million special charge for these enhanced healthcare benefits and increased our postretirement benefits obligation by \$410 million.
- Principally relates to the transition of our retiree medical benefit program from a self-insured plan to a fully-insured Medicare Advantage plan as discussed above.
- (5) In January 2021, we made \$241 million in contributions to our pension plans, including a contribution of \$130 million for the 2020 calendar year that was permitted to be deferred to January 4, 2021 as provided under the CARES Act.

Balance Sheet Position

	Pension	Benefits	Retiree Medic Postretirem			
	2021 2020		2021 2020		2021	2020
		(In	millions)			
As of December 31,						
Current liability	\$ 7	\$ 7	\$ 90	\$ 55		
Noncurrent liability	4,212	6,248	841	821		
Total liabilities	\$4,219	\$6,255	\$ 931	\$ 876		
Net actuarial loss (gain)	\$5,252	\$6,700	\$(396)	\$(358)		
Prior service cost (benefit)	47	75	(167)	(181)		
Total accumulated other comprehensive loss (income),						
pre-tax	\$5,299	\$6,775	<u>\$(563)</u>	\$(539)		

Plans with Projected Benefit Obligations Exceeding Fair Value of Plan Assets

	Pension Benefits	
	2021	2020
	(In millions)	
Projected benefit obligation	\$18,910	\$19,812
Fair value of plan assets	14,691	13,557

Plans with Accumulated Benefit Obligations Exceeding Fair Value of Plan Assets

	Pension	Benefits	Retiree Medic Postretirem			
	2021 2020		2021	2020		
		(In millions)				
Accumulated benefit obligation	\$18,899	\$19,799	\$ —	\$ —		
Accumulated postretirement benefit obligation	_	_	1,098	1,046		
Fair value of plan assets	14,691	13,557	167	170		

Net Periodic Benefit Cost (Income)

	Pension Benefits				Retiree Medical an Postretirement Be							
	20)21	- 2	2020	2	019	20)21	20	20	20)19
					(In	millio	ns)					
Defined benefit plans:												
Service cost	\$	4	\$	2	\$	2	\$	12	\$	8	\$	3
Interest cost		526		615		703		30		30		33
Expected return on assets	(1	,084)	(1,010)	(815)		(12)		(11)		(15)
Special termination benefits		_		_			1	139	4	110		
Settlements				12		_		—		—		_
Amortization of:												
Prior service cost (benefit)		28		30		28		(13)	(1	135)	(2	236)
Unrecognized net loss (gain)		212		164		150		(24)	,	(24)	•	(31)
Net periodic benefit cost (income)	\$	(314)	\$	(187)	\$	68	\$1	132	\$ 2	278	\$(2	246)

The service cost component of net periodic benefit cost (income) is included in operating expenses, the cost for the special termination benefits is included in special items, net and the other components of net periodic benefit cost (income) are included in nonoperating other income, net on our consolidated statements of operations.

Assumptions

The following actuarial assumptions were used to determine our benefit obligations and net periodic benefit cost (income) for the periods presented:

	Pension	Benefits	Retiree Medical and Oth Postretirement Benefit		
	2021	2020	2021	2020	
Benefit obligations: Weighted average discount rate	3.0%	2.7%	2.8%	2.4%	
			Retiree Medical	and Other	

	Pension Benefits			Postre	Benefits	
	2021	2020	2019	2021	2020	2019
Net periodic benefit cost (income):						
Weighted average discount rate	2.7%	3.4%	4.4%	2.4%	3.2%	4.3%
Weighted average expected rate of return						
on plan assets	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Weighted average health care cost trend						
rate assumed for next year (1)	N/A	N/A	N/A	4.8%	4.0%	3.7%

⁽¹⁾ The weighted average health care cost trend rate at December 31, 2021 is assumed to decline gradually to 3.9% by 2028 and remain level thereafter.

As of December 31, 2021, our estimate of the long-term rate of return on plan assets was 8.0% 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.

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. On March 11, 2021, the ARP was enacted, which included funding relief provisions benefiting single employer qualified retirement benefit pension plans such as those sponsored by us. Based on the ARP provisions applicable to our pension plans, we will have no additional funding requirements until 2023. 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.

Benefit Payments

The following benefit payments, which reflect expected future service as appropriate, are expected to be paid (approximately, in millions):

	2022	2023	2024	2025	2026	2027- 2031
Pension benefits	\$864	\$898	\$933	\$966	\$994	\$5,225
Retiree medical and other postretirement benefits	114	109	103	99	95	390

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 the 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	45% - 80%
Public:	
U.S. Large	10% - 40%
U.S. Small/Mid	2% - 10%
International	10% - 25%
International Small/Mid	0% - 10%
Emerging Markets	2% - 15%
Alternative Investments	5% - 30%

Asset Class/Sub-Class	Allowed Range
Fixed Income	20% - 55%
Public:	
U.S. Long Duration	15% - 45%
High Yield and Emerging Markets	0% - 10%
Private Income	0% - 15%
Other	0% - 5%
Cash Equivalents	0% - 20%

U.S. long duration bonds are used to partially hedge the assets from declines in interest rates. Public equity as well as high yield 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. 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. 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. No changes in valuation techniques or inputs occurred during the year.

Benefit Plan Assets Measured at Fair Value on a Recurring Basis

The fair value of our pension plan assets at December 31, 2021 and 2020, by asset category, were as follows (in millions):

	Fair Value Measurements as of December 31, 2021			
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	\$ 76	\$ —		\$ 76
Equity securities:				
International markets (a), (b)	2,166		4	2,170
Large-cap companies (b)	1,860			1,860
Mid-cap companies (b)	449			449
Small-cap companies (b)	84	2	_	86
Mutual funds/exchange traded funds (c)	263		_	263
Fixed income:				
Corporate debt (d)	_	2,847	_	2,847
Government securities (e)	_	1,128	_	1,128
U.S. municipal securities	_	19	_	19
Alternative instruments:				
Private market partnerships (f)	_	_	52	52
Private market partnerships measured at net				
asset value (f), (g)	_		_	2,827
Common/collective trusts (h)	_	337	_	337

	Fair Value Me	easurements a	s of December 31	, 2021
Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Common/collective trusts measured at net				
asset value (g), (h)	_			2,514
Insurance group annuity contracts	_		2	2
Other investments	_	3	_	3
Dividend and interest receivable	45	_	_	45
Due from brokers for sale of securities – net	10	_	_	10
Other receivables – net	3			3
Total	\$4,956	\$4,336	<u>\$58</u>	\$14,691

- (a) Holdings are diversified as follows: 14% United Kingdom, 10% Ireland, 10% Japan, 9% Switzerland, 7% France, 6% Germany, 12% emerging markets and the remaining 32% 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 holdings invested 70% in U.S. treasuries and corporate bonds, 17% in equity securities of international companies and 13% in equity securities of large-cap, mid-cap and small-cap U.S. companies.
- (d) Includes approximately 81% investments in corporate debt with a S&P rating lower than A and 19% investments in corporate debt with a S&P rating A or higher. Holdings include 86% U.S. companies, 12% international companies and 2% emerging market companies.
- (e) Includes approximately 94% investments in U.S. domestic government securities and 6% in emerging market government securities. There are no significant foreign currency risks within this classification.
- Includes limited partnerships that invest primarily in domestic private equity and private income opportunities. 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 \$1.6 billion over the next ten years.
- (9) 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.
- (h) Investment includes 31% in a common/collective trust investing in large market capitalization equity securities within the U.S., 29% in three common/collective trusts investing in emerging country equity securities, 22% in a common/collective trust investing in equity securities of companies located outside the U.S., 11% in a collective interest trust investing primarily in short-term securities, 6% in a common/collective trust investing in smaller market capitalization equity securities within the U.S. and 1% in Canadian segregated balanced value, income growth and diversified pooled funds. For some trusts, requests for withdrawals must meet specific requirements with advance notice of redemption preferred.

Fair Value Measurements as of December 31, 2020 **Quoted Prices in Active Markets** Significant Significant Observable Unobservable for Identical **Assets** Inputs Inputs **Asset Category** (Level 1) (Level 2) (Level 3) Total \$ \$ \$--Cash and cash equivalents 40 40 Equity securities: International markets (a), (b) 2,282 2,282 2,085 2,085 428 428 73 1 74 80 80 Fixed income: Corporate debt (d) 3,026 3,026 1,010 1,010 U.S. municipal securities 30 30 Alternative instruments: Private market partnerships (f) 15 15 Private market partnerships measured at net 1.791 259 259 Common/collective trusts measured at net asset value (g), (h) 2,384 2 2 Dividend and interest receivable 49 49 Due from brokers for sale of securities – net 1 1 Other receivables – net 1 1 \$4,326 \$17 \$5,039 \$13,557

⁽a) Holdings are diversified as follows: 11% Switzerland, 11% Ireland, 10% United Kingdom, 9% France, 8% Japan, 7% Germany, 6% Netherlands, 13% emerging markets and the remaining 25% 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, 35% in U.S. treasuries and corporate bonds and 26% 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 89% U.S. companies, 9% international companies and 2% emerging market companies.

⁽e) Includes approximately 89% investments in U.S. domestic government securities, 9% in emerging market government securities and 2% in international government securities. There are no significant foreign currency risks within this classification.

⁽f) Includes limited partnerships that invest primarily in domestic private equity and private income opportunities. 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 \$1.6 billion over the next ten years.

- (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.
- (h) Investment includes 34% in a common/collective trust investing in large market capitalization equity securities within the U.S., 30% in three common/collective trusts investing in emerging country equity securities, 21% in a common/collective trust investing in equity securities of companies located outside the U.S., 9% in a collective interest trust investing primarily in shortterm securities, 5% in a common/collective trust investing in smaller market capitalization equity securities within the U.S. and 1% in Canadian segregated balanced value, income growth and diversified pooled funds. For some trusts, requests for withdrawals must meet specific requirements with advance notice of redemption preferred.

Changes in fair value measurements of Level 3 investments during the years ended December 31, 2021 and 2020, were as follows (in millions):

	2021	2020
Balance at beginning of year		\$12
Actual gain on plan assets:		
Relating to assets still held at the reporting date	10	1
Purchases	32	4
Sales	(1)	
Balance at end of year	\$58	\$17

The fair value of our retiree medical and other postretirement benefits plans' assets by asset category, were as follows (in millions):

	Fair Value Measurements as of December 31, 2021				
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	_	163	_	163	
Total	\$ 4	\$163	<u>\$—</u>	\$167	

	Fair Value Measurements as of December 31, 2020				
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	<u> </u>	166		166	
Total	\$ 4	\$166	\$	\$170	

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. Net asset value is based on

the fair market value of the funds' underlying assets and liabilities at the date of determination. The AAL Class mutual funds are offered only to benefit plans of American, therefore, trading is restricted only to American, resulting in a fair value classification of Level 2. Investments included approximately 24% and 25% of investments in non-U.S. common stocks in 2021 and 2020, respectively.

Defined Contribution and Multiemployer Plans

The costs associated with our defined contribution plans were \$920 million for the year ended December 31, 2021 and \$860 million for each of the years ended December 31, 2020 and 2019.

We participate in the International Association of Machinists & Aerospace Workers (IAM) National Pension Fund, Employer Identification No. 51-6031295 and Plan No. 002 (the IAM Pension Fund). Our contributions to the IAM Pension Fund were \$43 million, \$40 million and \$32 million for the years ended December 31, 2021, 2020 and 2019, respectively. The IAM Pension Fund reported \$494 million in employers' contributions for the year ended December 31, 2020, which is the most recent year for which such information is available. For 2020, our contributions represented more than 5% of total contributions to the IAM Pension Fund.

On March 29, 2019, the actuary for the IAM Pension Fund certified that the fund was in "endangered" status despite reporting a funded status of over 80%. Additionally, the IAM Pension Fund's Board voluntarily elected to enter into "critical" status on April 17, 2019. Upon entry into critical status, the IAM Pension Fund was required by law to adopt a rehabilitation plan aimed at restoring the financial health of the pension plan and did so on April 17, 2019 (the Rehabilitation Plan). Under the Rehabilitation Plan, we were subject to an immaterial contribution surcharge, which ceased to apply June 14, 2019 upon our mandatory adoption of a contribution schedule under the Rehabilitation Plan. The contribution schedule requires 2.5% annual increases to our contribution rate. This contribution schedule will remain in effect through the earlier of December 31, 2031 or the date the IAM Pension Fund emerges from critical status.

Profit Sharing Program

We accrue 5% of our pre-tax income excluding net special items for our profit sharing program. As a result of our pre-tax loss excluding net special items, there will not be a payout for 2021 under our profit sharing program.

10. Accumulated Other Comprehensive Loss

The components of AOCI are as follows (in millions):

	Retiree Medical and Other Postretirement Benefits	Unrealized Loss on Investments	Income Tax Benefit (Provision) (1)	Total
Balance at December 31, 2019 Other comprehensive income (loss) before	\$(5,238)	\$(2)	\$(1,091)	\$(6,331)
reclassifications	(1,045)	_	236	(809)
Amounts reclassified from AOCI	47	_	(10)(2)	37
Net current-period other comprehensive income (loss)	(998)	_	226	(772)

Pension

Pension, Retiree Medical and Other Postretirement Benefits	Unrealized Loss on Investments	Income Tax Benefit (Provision) (1)	Total
(6,236)	(2)	(865)	(7,103)
1,297	_	(293)	1,004
203	_	(46)(2)	157
1,500	_	(339)	1,161
\$(4,736)	\$(2)	\$(1,204)	<u>\$(5,942)</u>
	Retiree Medical and Other Postretirement Benefits (6,236) 1,297 203 1,500	Retiree Medical and Other Postretirement Benefits	Retiree Medical and Other Dostretirement Benefits Unrealized Loss on Investments (Provision) (1) (865)

⁽¹⁾ Relates principally to pension, retiree medical and other postretirement benefits obligations that will not be recognized in net loss until the obligations are fully extinguished.

Reclassifications out of AOCI for the years ended December 31, 2021 and 2020 are as follows (in millions):

	Amounts reclas	sified from AOC					
	Year Ended December 31,		Year Ended December 31,		Year Ended December 31,		Affected line items on the consolidated statements of
AOCI Components	2021	2020	operations				
Amortization of pension, retiree medical and other postretirement benefits:							
Prior service cost (benefit)	\$ 11	\$ (81)	Nonoperating other income, net				
Actuarial loss	146	118	Nonoperating other income, net				
Total reclassifications for the period, net							
of tax	<u>\$157</u>	\$ 37					

Amounts allocated to other comprehensive income (loss) for income taxes will remain in AOCI until we cease all related activities, such as termination of the pension plan.

11. 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, 2021 are expected to be as follows (approximately, in millions):

	2022	2023	2024	2025	2026	2027 and Thereafter	Total
Payments for aircraft and engine							
commitments (1)	\$1,987	\$1,851	\$3,358	\$3,535	\$1,663	\$688	\$13,082

These amounts are net of purchase deposits currently held by the manufacturers. Our purchase deposits held by all manufacturers totaled \$517 million and \$1.4 billion as of December 31, 2021 and December 31, 2020, respectively.

Relates to pension, retiree medical and other postretirement benefits obligations and is recognized within the income tax benefit on our consolidated statements of operations.

Due to the uncertainty surrounding the timing of delivery of certain aircraft, the amounts in the table represent our most current estimate; however, the actual delivery schedule may differ from the table above, potentially materially.

On January 31, 2022, we entered into an amended purchase agreement with The Boeing Company (Boeing) pursuant to which we agreed to purchase 23 additional Boeing 737 MAX Family aircraft through the conversion of existing purchase options. We also intend to exercise purchase options for an additional seven aircraft in 2022, bringing our total incremental firm order of Boeing 737 MAX Family aircraft to 30, with 15 of such aircraft scheduled to be delivered in 2023 and 15 scheduled to be delivered in 2024. In addition, we entered into an amended purchase agreement with Boeing to defer the delivery of certain Boeing 787 Family aircraft previously scheduled to be delivered beginning in January 2023. Pursuant to this amendment, deliveries of these aircraft are now scheduled to commence in the fourth quarter of 2023 and will continue into 2027. The table above reflects our purchase commitments after giving effect to these amendments and assumes our exercise of the seven 737 MAX Family aircraft purchase options mentioned above.

Additionally, the amounts in the table exclude 10 and three Boeing 787-8 aircraft scheduled to be delivered in 2022 and 2023, respectively, and four and one Boeing 787-9 aircraft scheduled to be delivered in 2023 and 2024, respectively, for which we have obtained committed lease financing. See Note 5 for information regarding this operating lease commitment.

Additionally, we have purchase commitments related to aircraft fuel, flight equipment maintenance, construction projects and information technology support as follows (approximately): \$4.4 billion in 2022, \$1.8 billion in 2023, \$1.4 billion in 2024, \$154 million in 2025, \$610 million in 2026 and \$942 million in 2027 and thereafter.

(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. American controls marketing, scheduling, ticketing, pricing and seat inventories. 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.

As of December 31, 2021, American's capacity purchase agreements with third-party regional carriers had expiration dates ranging from 2022 to 2033, with rights of American to extend the respective terms of certain agreements.

As of December 31, 2021, American's minimum obligations under its capacity purchase agreements with third-party regional carriers are as follows (approximately, in millions):

	2022	2023	2024	2025	2026	2027 and Thereafter	Total
Minimum obligations under							
capacity purchase agreements							
with third-party regional							
carriers (1)	\$1,495	\$1,834	\$1,875	\$1,729	\$1,123	\$2,317	\$10,373

⁽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 5.

(c) Airport Redevelopment

Los Angeles International Airport (LAX)

From time to time, airports where we have operations engage in construction projects, often substantial, that result in new or improved facilities that are ultimately funded through increases in the rent and other occupancy costs payable by airlines using the airport. Unlike this construction and funding model, we are managing a project at LAX where we have legal title to the assets during construction. 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, which started in October 2018 and is expected to be completed in 2028, will occur in a phased approach. The modernization project will include a unified departure hall to the entranceway of Terminals 4 and 5, reconfigured ticket counter and check-in areas with seamless access to security screening areas, 10 new security screening lanes with automated technology in addition to the existing Terminal 5 lanes, and a new Terminal 4 South concourse with more open 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.

As each phase is completed and ready for use, 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 the assets are sold and transferred to LAWA. As of December 31, 2021, we have incurred approximately \$338 million in costs relating to the LAX modernization project, of which \$112 million, \$114 million and \$98 million were incurred during 2021, 2020 and 2019, respectively, and have been included within operating property and equipment on our consolidated balance sheets and included within airport construction projects, net of reimbursements on our consolidated statements of cash flows. As of December 31, 2021, we have sold and transferred \$132 million of non-proprietary improvements to LAWA, of which \$21 million occurred during 2021. For non-proprietary improvements which are not yet ready for use, any cash payments received from LAWA will be reflected as a financial liability. As of December 31, 2021, we have received \$88 million in cash proceeds for non-proprietary improvements which are not yet ready for use, and therefore have not been sold and transferred back to LAWA. These proceeds are currently included in other accrued liabilities on our consolidated balance sheet and are reflected as financing activities on our consolidated statement of cash flows.

JFK

In January 2020, American and British Airways announced the start of construction projects to upgrade New York's JFK Terminal 8 (the Terminal). The renovation projects at the Terminal include: (i) the reconfiguration or elimination of certain existing gates and the construction of widebody gates, (ii) the construction of approximately 51,000 square feet of new terminal building space and the refurbishment of 73,300 square feet of existing terminal space, (iii) the expansion of the baggage system capacity of the Terminal, (iv) improvements to the premium passenger lounges, check-in and, potentially, security access areas, and (v) bathroom refreshment, new signage, and other upgrades. The construction project is currently scheduled to be completed in 2023 and is estimated to cost \$439 million. In 2021, \$118 million was spent on construction projects to upgrade the Terminal and has been included in airport construction projects, net of reimbursements on our consolidated statement of cash flows.

(d) Off-Balance Sheet Arrangements

Pass-Through Trusts

American currently has 344 owned aircraft, 11 leased aircraft and 60 owned spare aircraft engines, which in each case 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 or to permit issuance of debt backed by existing flight equipment. In the case of aircraft EETCs, 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. Similarly, in the case of the spare engine EETCs, the trusts allow American to use its existing pool of spare engines to raise financing under a single facility. 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 or spare engines scheduled to be delivered, financed or refinanced upon the issuance of the EETC or within a specific period of time thereafter. At the time of each covered aircraft or spare engine 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 or engines. The equipment notes are issued, at American's election, in connection with a mortgage financing of the aircraft or spare engines 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 or engines, as applicable. 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, 2021, \$9.4 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; however, American concluded it is not the primary beneficiary under these leasing arrangements and 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 \$20 million as of December 31, 2021, which are reflected in the operating lease obligations in Note 5.

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, 2021, we had \$439 million of letters of credit and surety bonds securing various obligations, of which \$94 million is collateralized with our restricted cash. The letters of credit and surety bonds that are subject to expiration will expire on various dates through 2025.

(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.

The Plan established a DCR 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 DCR 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 calculating earnings per common share. As disputed claims are resolved, the claimants receive distributions of shares from the DCR. We are not required to distribute additional shares above the limits contemplated by the Plan, even if the shares remaining for distribution in the DCR are not sufficient to pay any additional allowed unsecured claims. On November 29, 2021, the Bankruptcy Court granted our motion to close the bankruptcy case. The motion authorized us to settle various bankruptcy-related claims, distribute excess reserved funds held in the DCR, excluding shares set aside for an earlier settlement of a claim that cannot be distributed until all appeals are final, and to close the Chapter 11 cases. On December 7, 2021, in accordance with the approval granted by the Bankruptcy Court, we distributed approximately 4.5 million shares of AAG common stock from the DCR to former AMR stockholders, to former convertible noteholders treated as stockholders under the Plan and to claimants. As of December 31, 2021, 0.3 million shares of AAG common stock remain in the DCR to be available to resolve an outstanding claim.

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, were named as defendants in approximately 100 putative class action lawsuits alleging unlawful agreements with respect to air passenger capacity. The U.S. lawsuits were consolidated in the Federal District Court for the District of Columbia (the DC Court). On June 15, 2018, we reached a settlement agreement with the plaintiffs in the amount of \$45 million to resolve all class claims in the U.S. lawsuits. That settlement was approved by the DC Court on May 13, 2019, however three parties who objected to the settlement have appealed that decision to the United States Court of Appeals for the District of Columbia. We believe these appeals are without merit and intend to vigorously defend against them.

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 Bankruptcy Court. The complaint named as defendants US Airways Group, US Airways, Inc., 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 Bankruptcy Court denied in part defendants' motion for summary judgment, and fully denied plaintiffs' cross-motion for summary judgment. The parties' evidentiary cases were presented before the Bankruptcy Court in a bench trial in March 2019 and the parties submitted proposed findings of fact and conclusions of law and made closing arguments in April 2019. On January 29, 2021, the Bankruptcy Court published its decision finding in our favor. The plaintiffs have appealed this ruling to the U.S. District Court, which remains pending. We believe this lawsuit is without merit and intend to continue to vigorously defend against it, including against plaintiffs' appeal of the Bankruptcy Court's January 29, 2021 ruling.

Government Antitrust Action Related to the Northeast Alliance. On September 21, 2021, the United States Department of Justice (DOJ), joined by Attorneys General from six states and the District of Columbia, filed an antitrust complaint against American and JetBlue Airways Corporation (JetBlue) alleging that American and JetBlue violated U.S. antitrust laws in connection with the previously disclosed Northeast Alliance (NEA) arrangement. We believe the complaint is without merit and intend to defend against it vigorously.

Also on September 21, 2021, the United States Department of Transportation (DOT) published a Clarification Notice relating to the agreement that had been reached between the DOT, American, and JetBlue in January 2021, at the conclusion of the DOT's review of the NEA (DOT Agreement). The DOT Clarification Notice stated, among other things, that the DOT Agreement remains in force during the pendency of the DOJ action against the NEA and, while the DOT retains independent statutory authority to prohibit unfair methods of competition in air transportation, the DOT intends to defer to DOJ to resolve the antitrust concerns that DOJ has identified with respect to the NEA. The DOT simultaneously published a Notice Staying Proceeding in relation to a complaint by Spirit Airlines, Inc. regarding the NEA, pending resolution of the DOJ action described above.

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.

(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, 2021, the remaining lease payments through 2035 guaranteeing the principal and interest on these bonds are \$555 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, 2021, AAG had issued guarantees covering approximately \$19.8 billion of American's secured debt (and interest thereon), including the Credit Facilities, the AAdvantage Financing, certain EETC financings and \$1.1 billion of American's special facility revenue bonds (and interest thereon).

(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 all or a portion of advance ticket sales that have been processed by that company, but for which we have not yet provided the air transportation. 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 or the triggering of a liquidity covenant. These credit card processing companies are not currently entitled to maintain any holdbacks. The imposition of holdback requirements would reduce our liquidity.

(h) Labor Negotiations

As of December 31, 2021, we employed approximately 123,400 active full-time equivalent (FTE) employees, of which 26,600 were employed by our wholly-owned regional subsidiaries. Of the total active FTE employees, 86% are covered by collective bargaining agreements (CBAs) with various labor unions and 45% are covered by CBAs that are currently amendable or that will become amendable within one year. Joint collective bargaining agreements covering our mainline pilots, flight attendants, passenger service, flight simulator engineers and dispatchers are now amendable. The CBAs covering certain employee groups at our wholly-owned regional subsidiaries are also amendable.

12. 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,				r 31,
	2021		2020	2(019
Non-cash investing and financing activities:					
Equity investment	\$	88	\$ —	\$	_
Settlement of bankruptcy obligations		(1)	56		7
Deferred financing costs paid through issuance of debt		_	17		_
Supplemental information:					
Interest paid, net	1	,632	944	1,	,111
Income taxes paid		3	6		8

13. 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 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(I) for our passenger revenue by geographic region. Our tangible assets consist primarily of flight equipment, which are mobile across geographic markets and, therefore, have not been allocated.

14. 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 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.

For the years ended December 31, 2021, 2020 and 2019, we recorded \$98 million, \$91 million and \$95 million, respectively, of share-based compensation costs principally in salaries, wages and benefits expense on our consolidated statements of operations.

During 2021, 2020 and 2019, we withheld approximately 1.0 million, 0.7 million and 0.8 million shares of AAG common stock, respectively, and paid approximately \$18 million, \$15 million and \$25 million, respectively, in satisfaction of certain tax withholding obligations associated with employee equity awards.

Restricted Stock Unit Awards (RSUs)

The majority of our RSUs have service conditions (time vested primarily over three years). The grant-date fair value of these RSUs is equal to the market price of the underlying shares of AAG common stock on the date of grant. The expense for these RSUs is recognized on a straight-line basis over the vesting period for the entire award. RSUs are classified as equity awards as the vesting results in the issuance of shares of AAG common stock.

RSU award activity for all plans for the years ended December 31, 2021, 2020 and 2019 is as follows:

Mainlete d

	Number of Shares	Weighted Average Grant Date Fair Value
	(In thousands)	
Outstanding at December 31, 2018	4,320	\$44.29
Granted	3,206	34.00
Vested and released	(2,002)	44.90
Forfeited	(337)	42.55
Outstanding at December 31, 2019	5,187	\$37.01
Granted	5,883	22.07
Vested and released	(2,268)	39.46
Forfeited	(920)	29.78
Outstanding at December 31, 2020	7,882	\$23.66
Granted	5,525	18.34
Vested and released	(3,314)	25.58
Forfeited	(692)	18.78
Outstanding at December 31, 2021	9,401	\$20.17

As of December 31, 2021, there was \$99 million of unrecognized compensation cost related to RSUs. These costs are expected to be recognized over a weighted average period of one year. The total fair value of RSUs vested during the years ended December 31, 2021, 2020 and 2019 was \$62 million, \$51 million and \$68 million, respectively.

15. Valuation and Qualifying Accounts (in millions)

Balance at Beginning of Year	Additions Charged to Statement of Operations Accounts	Deductions	Balance at End of Year
\$490	\$177	\$ (33)	\$634
784	100	(394)	490
814	91	(121)	784
\$ 36	\$ 22	\$ (24)	\$ 34
31	27	(22)	36
29	19	(17)	31
	\$490 784 814 \$ 36 31	Balance at Beginning of Year Charged to Statement of Operations Accounts \$490 \$177 784 100 814 91 \$ 36 \$ 22 31 27	Balance at Beginning of Year Charged to Statement of Operations Accounts Deductions \$490 \$177 \$ (33) 784 100 (394) 814 91 (121) \$ 36 \$ 22 \$ (24) 31 27 (22)

16. Subsequent Event

On January 31, 2022, we entered into an amended purchase agreement with Boeing, pursuant to which we agreed to purchase 23 additional Boeing 737 MAX Family aircraft through the conversion of existing purchase options. We also intend to exercise purchase options for an additional seven aircraft in 2022, bringing our total incremental firm order of Boeing 737 MAX Family aircraft to 30, with 15 of such aircraft scheduled to be delivered in 2023 and 15 scheduled to be delivered in 2024. In addition, we entered into an amended purchase agreement with Boeing to defer the delivery of certain Boeing 787 Family aircraft previously scheduled to be delivered beginning in January 2023. Pursuant to this amendment, deliveries of these aircraft are now scheduled to commence in the fourth quarter of 2023 and will continue into 2027.

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, 2021 and 2020, the related consolidated statements of operations, comprehensive income (loss), cash flows, and stockholder's equity, for each of the years in the three-year period ended December 31, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, 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, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 22, 2022 expressed an unqualified opinion on the effectiveness of American's internal control over financial reporting.

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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The

communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Estimate of mileage credits not expected to be redeemed

As discussed in Note 1(I) to the consolidated financial statements, American's loyalty program awards mileage credits to passengers for flights on American, flights on a partner airline, or for using the services of other program participants. American uses a statistical model based on historical redemption patterns to develop an estimate of mileage credits not expected to be redeemed. The associated value of mileage credits not expected to be redeemed is recognized as revenue proportionally as the remaining mileage credits are redeemed. American's loyalty program liability was \$9.1 billion as of December 31, 2021 and the associated passenger revenue for mileage credits redeemed for travel was \$2.2 billion for the year ended December 31, 2021.

We identified the evaluation of the estimation of mileage credits not expected to be redeemed as a critical audit matter. Evaluating the application of the statistical model used to develop the estimate involved complex auditor judgment and the use of actuarial professionals with specialized skills and knowledge.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over American's loyalty program accounting process, including a control related to the evaluation of the application of the statistical model used to develop the estimate of mileage credits not expected to be redeemed. We involved actuarial professionals with specialized skills and knowledge, who assisted in developing a statistical model to derive an independent expectation of mileage credits not expected to be redeemed. We compared this independent expectation to American's estimate to evaluate the appropriateness of the amount of the loyalty program liability and associated passenger revenue.

Sufficiency of audit evidence over realizability of tax operating loss and other carryforwards

As discussed in Notes 1(i) and 5 to the consolidated financial statements, American had \$4.5 billion of tax operating loss and other carryforwards, which are recorded as deferred tax assets at December 31, 2021. Deferred tax assets are recognized related to tax operating loss and other carryforwards that will reduce future taxable income. American provides a valuation allowance for deferred tax assets when it is more likely than not that some portion, or all of the deferred tax assets, will not be realized. In evaluating the need for a valuation allowance, management considers the weighting of all available positive and negative evidence.

We identified the evaluation of the sufficiency of audit evidence over the realizability of tax operating loss and other carryforwards as a critical audit matter. Evaluating the sufficiency of audit evidence required subjective auditor judgment in order to assess the extent of procedures performed in assessing the realizability of the tax operating loss and other carryforwards.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to American's deferred tax asset valuation allowance process, including controls related to the realizability of tax operating loss and other carryforwards. We evaluated positive and negative evidence used in assessing whether the tax operating loss and other carryforwards were more likely than not to be realized in the future. We evaluated the reasonableness of management's projections of future profitability considering historical profitability of American, and consistency with industry

data and economic trends. We involved tax professionals with specialized skills and knowledge, who assisted in evaluating the application of tax law. We assessed the sufficiency of audit evidence obtained over the realizability of the tax operating loss and other carryforwards by evaluating the cumulative results of the audit procedures.

/s/ KPMG LLP

We have served as American's auditor since 2014.

Dallas, Texas February 22, 2022

AMERICAN AIRLINES, INC. CONSOLIDATED STATEMENTS OF OPERATIONS (In millions)

	Year Ended December 31,		
	2021	2020	2019
Operating revenues:			
Passenger	\$26,063	\$ 14,518	\$42,010
Cargo	1,314	769	863
Other	2,503	2,048	2,888
Total operating revenues	29,880	17,335	45,761
Operating expenses:			
Aircraft fuel and related taxes	6,792	3,402	9,395
Salaries, wages and benefits	11,811	11,224	12,886
Regional expenses	3,111	2,746	4,002
Maintenance, materials and repairs	1,979	1,585	2,381
Other rent and landing fees	2,619	2,004	2,672
Aircraft rent	1,425	1,341	1,326
Selling expenses	1,098	666	2,004
Depreciation and amortization	2,019	2,040	1,982
Special items, net	(4,006)	(657)	635
Other	3,993	3,208	5,431
Total operating expenses	30,841	27,559	42,714
Operating income (loss)	(961)	(10,224)	3,047
Nonoperating income (expense):			
Interest income	34	337	515
Interest expense, net	(1,642)	(1,171)	(1,109)
Other income, net	292	155	152
Total nonoperating expense, net	(1,316)	(679)	(442)
Income (loss) before income taxes	(2,277)	(10,903)	2,605
Income tax provision (benefit)	(500)	(2,453)	633
Net income (loss)	\$ (1,777)	\$ (8,450)	\$ 1,972

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

	Year Ended December 31,		
	2021	2020	2019
Net income (loss)	\$(1,777)	\$(8,450)	\$1,972
Pension, retiree medical and other postretirement benefits	1,153	(771)	(434)
Total other comprehensive income (loss), net of tax	1,153	(771)	(431)
Total comprehensive income (loss)	\$ (624)	\$(9,221)	\$1,541

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

	Decem	ber 31,
	2021	2020
ASSETS		
Current assets Cash Short-term investments Restricted cash and short-term investments Accounts receivable, net Receivables from related parties, net Aircraft fuel, spare parts and supplies, net Prepaid expenses and other	\$ 265 12,155 990 1,484 5,547 1,692 579	\$ 231 6,617 609 1,334 7,877 1,520 633
Total current assets	22,712	18,821
Operating property and equipment Flight equipment Ground property and equipment Equipment purchase deposits	37,520 8,966 517	37,485 8,836 1,446
Total property and equipment, at cost Less accumulated depreciation and amortization	47,003 (17,770)	47,767 (16,393)
Total property and equipment, net Operating lease right-of-use assets Other assets	29,233 7,810	31,374 7,994
Goodwill Intangibles, net of accumulated amortization of \$786 and \$745, respectively Deferred tax asset Other assets	4,091 1,988 3,408 1,903	4,091 2,029 3,235 1,671
Total other assets	11,390	11,026
Total assets	\$ 71,145	\$ 69,215
LIABILITIES AND STOCKHOLDER'S EQUITY Current liabilities Current maturities of long-term debt and finance leases Accounts payable Accrued salaries and wages Air traffic liability Loyalty program liability Operating lease liabilities Other accrued liabilities	\$ 1,742 1,630 1,385 6,087 2,896 1,496 2,628	\$ 2,800 1,116 1,661 4,757 2,033 1,641 2,300
Total current liabilities	17,864	16,308
Long-term debt and finance leases, net of current maturities Pension and postretirement benefits Loyalty program liability Operating lease liabilities Other liabilities	30,352 5,020 6,239 6,578 1,266	26,182 7,027 7,162 6,739 1,449
Total noncurrent liabilities	49,455	48,559
Stockholder's equity Common stock, \$1.00 par value; 1,000 shares authorized, issued and outstanding Additional paid-in capital	17,152 (6,041) (7,285)	17,050 (7,194) (5,508)
Total stockholder's equity	3,826	4,348
Total liabilities and stockholder's equity	\$ 71,145	\$ 69,215

See accompanying notes to consolidated financial statements.

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

,	Year En	ded Decemi	per 31,
	2021	2020	2019
Cash flows from operating activities:	Ф (4 777)	¢(0.4E0)	¢ 4.070
Net income (loss)	\$ (1,777)	\$(8,450)	\$ 1,972
Depreciation and amortization	2,282	2,313	2,267
transactions Special items, net non-cash Pension and postretirement Deferred income tax provision (benefit) Share-based compensation Other, net Changes in operating assets and liabilities:	(26) 83 (320) (500) 95 24	(98) 1,588 (319) (2,453) 91 14	(109) 384 (178) 623 94 (56)
Decrease (increase) in accounts receivable Decrease (increase) in other assets Increase (decrease) in accounts payable and accrued liabilities Increase (decrease) in air traffic liability Decrease (increase) in receivables from related parties, net Increase (decrease) in loyalty program liability Contributions to pension plans Increase (decrease) in other liabilities	(290) (370) 335 1,454 1,857 (60) (247) 650	595 42 (619) (51) 4,134 580 (6) 1,210	130 (321) 273 469 (1,772) 76 (1,224) (199)
Net cash provided by (used in) operating activities Cash flows from investing activities:	3,190	(1,429)	2,429
Capital expenditures, net of aircraft purchase deposit returns Airport construction projects, net of reimbursements Proceeds from sale of property and equipment Proceeds from sale-leaseback transactions Purchases of short-term investments Sales of short-term investments Increase in restricted short-term investments Purchase of equity investment	(169) (204) 192 181 (19,454) 13,923 (401) (28)	(1,922) (173) 351 665 (5,874) 2,803 (308)	(4,156) (98) 49 850 (3,184) 4,144 (3)
Proceeds on sale of equity investment	5 10	41 90 19	250 2
Net cash used in investing activities	(5,945)	(4,308)	(2,146)
Proceeds from issuance of long-term debt	10,209 (7,320) (207) 88	8,959 (3,029) (85)	3,210 (3,440) (52)
Net cash provided by (used in) financing activities	2,770	5,845	(282)
Net increase in cash and restricted cash	15 385	108 277	1 276
Cash and restricted cash at end of year (a)	\$ 400	\$ 385	\$ 277
(a) The following table provides a reconciliation of cash and restricted within the consolidated balance sheets:	ed cash to	amounts	reported
Cash	\$265	\$231	\$267
investments	135	154	10
Total cash and restricted cash	\$400	\$385	\$277

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, 2018	\$	\$16,802	\$(5,992)	\$ 960	\$11,770
Net income	_	_	_	1,972	1,972
Other comprehensive loss, net	_	_	(431)	_	(431)
Share-based compensation expense	_	94	_		94
Intercompany equity transfer	_	7		10	17
Balance at December 31, 2019	_	16,903	(6,423)	2,942	13,422
Net loss	_	_	_	(8,450)	(8,450)
Other comprehensive loss, net	_		(771)	_	(771)
Share-based compensation expense	_	91	_	_	91
Intercompany equity transfer	_	56			56
Balance at December 31, 2020	_	17,050	(7,194)	(5,508)	4,348
Net loss	_		_	(1,777)	(1,777)
Other comprehensive income, net	_	_	1,153		1,153
Share-based compensation expense	_	95	_		95
Intercompany equity transfer	_	7			7
Balance at December 31, 2021	<u>\$—</u>	<u>\$17,152</u>	<u>\$(6,041)</u>	<u>\$(7,285)</u>	\$ 3,826

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, providing scheduled air transportation for passengers and cargo. 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, the loyalty program, deferred tax assets, as well as pension and retiree medical and other postretirement benefits. Certain prior period amounts have been reclassified to conform to the current year presentation. See (r) Regional Expenses below for further information.

(b) Impact of Coronavirus (COVID-19)

COVID-19 has been declared a global health pandemic by the World Health Organization. COVID-19 has surfaced in nearly all regions of the world, which has driven the implementation of significant, government-imposed measures to prevent or reduce its spread, including travel restrictions, testing regimes, closing of borders, "stay at home" orders and business closures. Ongoing global vaccination efforts and the corresponding lifting of government restrictions in and between many markets resulted in a partial recovery in demand for air travel in 2021, which improved American's revenues as compared to 2020. However, the return of demand was weaker than previous expectations and the speed and strength of this recovery remain uncertain, primarily due to the global rise in COVID-19 cases associated with the delta and omicron variants and the potential for continuation or reimposition of restrictions on global travel. The continued impact of the COVID-19 pandemic, including any increases in infection rates, new variants and renewed governmental action to slow the spread of COVID-19 cannot be estimated.

American has taken aggressive actions since the beginning of the COVID-19 pandemic to mitigate its effects on its business, including capacity reductions, structural changes to its fleet, cost reductions including implementing voluntary leave and early retirement programs, and steps to preserve cash and improve its overall liquidity position, consistent with the terms of the financial assistance it has received from the U.S. Government under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Subtitle A of Title IV of Division N of the Consolidated Appropriations Act, 2021 (PSP Extension Law) and Section 7301 of the American Rescue Plan Act of 2021 (the ARP).

Capacity Reductions

American's capacity (as measured by available seat miles) continues to be reduced compared to pre-COVID-19 pandemic levels, with total capacity in 2021 down 24.7% as compared to 2019. Domestic capacity in 2021 was down 14.5% while international capacity was down 44.9% as compared to 2019.

While demand for domestic and short-haul international markets has largely recovered to 2019 levels, uncertainty remains regarding the timing of a full recovery. American will continue to match its forward capacity with observed booking trends for future travel and make further adjustments to American's capacity as needed.

Cost Reductions

American has reduced its 2021 operating expenditures as a result of permanent non-volume cost reductions and other efficiency measures. These reductions include labor productivity enhancements, management salaries and benefits and other permanent cost reductions. Also, during the first quarter of 2021, approximately 1,600 represented team members opted into a voluntary early retirement program.

Liquidity

As of December 31, 2021, American had \$15.8 billion in total available liquidity, consisting of \$12.4 billion in unrestricted cash and short-term investments, \$2.8 billion in undrawn capacity under revolving credit facilities and a total of \$568 million in undrawn short-term revolving and other facilities.

During 2021, American completed the following financing transactions (see Note 3 for further information):

- issued \$3.5 billion in aggregate principal amount of 5.50% Senior Secured Notes due 2026 and \$3.0 billion in aggregate principal amount of 5.75% Senior Secured Notes due 2029 and entered into the \$3.5 billion AAdvantage Term Loan Facility of which the full amount of term loans was drawn at closing;
- repaid in full \$750 million under the 2013 Revolving Facility, \$1.6 billion under the 2014 Revolving Facility and \$450 million under the April 2016 Revolving Facility, all of which was borrowed in the second quarter of 2020 in response to the COVID-19 pandemic;
- repaid the \$550 million of outstanding loans under, and terminated, the \$7.5 billion secured term loan facility with the U.S. Department of the Treasury (Treasury) (the Treasury Loan Agreement);
- issued approximately \$150 million in special facility revenue bonds related to John F. Kennedy International Airport (JFK), of which \$62 million was used to fund the redemption of other bonds related to JFK;
- repaid in full \$950 million of the outstanding balance under, and terminated, the April 2016
 Spare Parts Term Loan Facility;
- received approximately \$94 million in proceeds from enhanced equipment trust certificates (EETCs) and other aircraft and flight equipment financing, all of which was used to repay existing indebtedness; and
- received approximately \$192 million of cash proceeds from the sale of property and equipment primarily related to aircraft fleets retired in 2020 and raised \$181 million principally from aircraft sale-leaseback transactions.

In addition to the foregoing financings, during 2021, AAG and the Subsidiaries (as defined below) received an aggregate of approximately \$3.5 billion in financial assistance through the payroll support program (PSP2) established under the PSP Extension Law. In connection with AAG and the

Subsidiaries receipt of this financial assistance, AAG issued a promissory note (the PSP2 Promissory Note) to Treasury for \$1.0 billion in aggregate principal amount and warrants to purchase up to an aggregate of approximately 6.6 million shares (the PSP2 Warrant Shares) of AAG common stock.

Also in 2021, AAG and the Subsidiaries received an aggregate of approximately \$3.3 billion in financial assistance through the payroll support program (PSP3) established under the ARP. In connection with AAG and the Subsidiaries receipt of this financial assistance, AAG issued a promissory note (the PSP3 Promissory Note) to Treasury for \$946 million in aggregate principal amount and warrants to purchase up to an aggregate of approximately 4.4 million shares (the PSP3 Warrant Shares) of AAG common stock. See below for further discussion on PSP2 and PSP3.

A significant portion of American's debt financing agreements contain covenants requiring it 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 and/or contain loan to value, collateral coverage and/or peak debt service coverage ratio covenants.

Given the above actions and American's current assumptions about the future impact of the COVID-19 pandemic on travel demand, which could be materially different due to the inherent uncertainties of the current operating environment, American expects to meet its cash obligations as well as remain in compliance with the debt covenants in its existing financing agreements for the next 12 months based on its current level of unrestricted cash and short-term investments, its anticipated access to liquidity (including via proceeds from financings), and projected cash flows from operations.

PSP1

On April 20, 2020 (the PSP1 Closing Date), American, Envoy Air Inc. (Envoy), Piedmont Airlines, Inc. (Piedmont) and PSA Airlines, Inc. (PSA and together with American, Envoy and Piedmont, the Subsidiaries), entered into a Payroll Support Program Agreement (the PSP1 Agreement) with Treasury, with respect to PSP1 provided pursuant to the CARES Act. In connection with AAG and the Subsidiaries' entry into the PSP1 Agreement, on the PSP1 Closing Date, AAG also entered into a warrant agreement (the PSP1 Warrant Agreement) with Treasury and issued the PSP1 Promissory Note to Treasury, with the Subsidiaries as guarantors (the Guarantors).

PSP1 Agreement

In connection with PSP1, AAG and the Subsidiaries are required to comply with the relevant provisions of the CARES Act, including the requirement that funds provided pursuant to the PSP1 Agreement be used exclusively for the continuation of payment of eligible employee wages, salaries and benefits, the prohibition against involuntary furloughs and reductions in employee pay rates and benefits, which expired on September 30, 2020, the requirement that certain levels of commercial air service be maintained and the provisions that prohibit the repurchase of AAG common stock and the payment of common stock dividends through at least September 30, 2021, as well as the provisions that restrict the payment of certain executive compensation until March 24, 2022. The PSP1 Agreement also imposes substantial reporting obligations on AAG and the Subsidiaries. These provisions were subsequently extended upon the entry of AAG and its Subsidiaries into PSP2 and PSP3. In addition, AAG and the Subsidiaries have entered into the Treasury Loan Agreement (as defined below) and, as a result, the stock repurchase, dividend and executive compensation restrictions imposed by the Treasury Loan Agreement will remain in place through the date that is one year after the secured loan provided under the Treasury Loan Agreement is fully repaid, which was in March 2021. See below for additional information on the Treasury Loan Agreement.

Pursuant to the PSP1 Agreement, Treasury provided to AAG and the Subsidiaries financial assistance in an aggregate of approximately \$6.0 billion. As partial compensation to the U.S. Government for the provision of financial assistance under PSP1, AAG issued the PSP1 Promissory Note in the aggregate principal amount of \$1.8 billion and issued warrants (each a PSP1 Warrant and, collectively, the PSP1 Warrants) to Treasury to purchase up to an aggregate of approximately 14.1 million shares (the PSP1 Warrant Shares) of AAG common stock for an exercise price of \$12.51 per share, subject to adjustment. See below for more information on the PSP1 Warrant Agreement and the PSP1 Warrants.

For accounting purposes, the \$6.0 billion of aggregate financial assistance AAG and the Subsidiaries received pursuant to the PSP1 Agreement is allocated to the PSP1 Promissory Note, the PSP1 Warrants and other PSP1 financial assistance (the PSP1 Financial Assistance). The \$1.8 billion aggregate principal amount of the PSP1 Promissory Note was recorded as unsecured long-term debt, and the \$63 million total fair value of the PSP1 Warrants, estimated using a Black-Scholes option pricing model, was recorded in stockholders' deficit in the consolidated balance sheet. The remaining amount of approximately \$4.2 billion of PSP1 Financial Assistance was recognized as a credit to special items, net in the consolidated statement of operations in the second and third quarters of 2020, the period over which the continuation of payment of eligible employee wages, salaries and benefits was required.

PSP1 Warrant Agreement and PSP1 Warrants

As partial compensation to the U.S. Government for the provision of financial assistance under the PSP1 Agreement, and pursuant to the PSP1 Warrant Agreement, AAG issued the PSP1 Warrants to Treasury to purchase PSP1 Warrant Shares. The exercise price of the PSP1 Warrant Shares is \$12.51 per share, subject to certain anti-dilution provisions provided for in the PSP1 Warrants.

Pursuant to the PSP1 Warrant Agreement, AAG issued to Treasury PSP1 Warrants to purchase up to an aggregate of approximately 14.1 million shares of AAG common stock for an exercise price of \$12.51 per share, subject to adjustment.

The PSP1 Warrants do not have any voting rights and are freely transferrable, with registration rights. Each PSP1 Warrant expires on the fifth anniversary of the date of issuance of such PSP1 Warrant. The PSP1 Warrants will be exercisable either through net share settlement or cash, at AAG's option. The PSP1 Warrants were issued solely as compensation to the U.S. Government related to entry into the PSP1 Agreement. No separate proceeds (apart from the financial assistance described above) were received upon issuance of the PSP1 Warrants or will be received upon exercise thereof.

Treasury Loan Agreement

On September 25, 2020 (the Treasury Loan Closing Date), AAG and American entered into a Loan and Guarantee Agreement (the Treasury Loan Agreement) with Treasury, which provided for a secured term loan facility (the Treasury Term Loan Facility) that permitted American to borrow up to \$5.5 billion. Subsequently, on October 21, 2020, AAG and American entered into an amendment to the Treasury Loan Agreement, which increased the borrowing amount to up to \$7.5 billion. In connection with AAG's entry into the Treasury Loan Agreement, on the Treasury Loan Closing Date, AAG also entered into a warrant agreement (the Treasury Loan Warrant Agreement) with Treasury.

In September 2020, American borrowed \$550 million under the Treasury Term Loan Facility and on March 24, 2021, used proceeds from the AAdvantage Financing to prepay in full the \$550 million of

outstanding loans under the Treasury Term Loan Facility. Pursuant to the Treasury Loan Agreement, AAG issued to Treasury warrants (Treasury Loan Warrants) to purchase up to an aggregate of approximately 4.4 million shares of AAG common stock (the Treasury Loan Warrant Shares). The exercise price of the Treasury Loan Warrant Shares is \$12.51 per share, subject to certain anti-dilution provisions provided for in the Treasury Loan Warrant Agreement. For accounting purposes, the fair value for the Treasury Loan Warrant Shares is estimated using a Black-Scholes option pricing model and recorded in stockholders' equity with an offsetting debt discount to the Treasury Term Loan Facility in the consolidated balance sheet. The provisions of the Treasury Loan Warrants are substantially similar to the PSP1 Warrants.

PSP2

On January 15, 2021 (the PSP2 Closing Date), the Subsidiaries, entered into a Payroll Support Program Extension Agreement (the PSP2 Agreement) with Treasury, with respect to PSP2 as provided pursuant to the PSP Extension Law. In connection with AAG and the Subsidiaries' entry into the PSP2 Agreement, on the PSP2 Closing Date, AAG also entered into a warrant agreement (the PSP2 Warrant Agreement) with Treasury and issued the PSP2 Promissory Note to Treasury, with the Subsidiaries as guarantors.

PSP2 Agreement

In connection with PSP2, AAG and the Subsidiaries are required to comply with the relevant provisions of the PSP Extension Law, which are substantially similar to the restrictions contained in the Payroll Support Program Agreement entered into by the Subsidiaries with Treasury in connection with the payroll support program established under the CARES Act (the PSP1 Agreement), but are in effect for a longer time period. These provisions include the requirement that funds provided pursuant to the PSP2 Agreement be used exclusively for the continuation of payment of eligible employee wages, salaries and benefits, the prohibition against involuntary furloughs and reductions in employee pay rates and benefits, which expired on March 31, 2021, the provisions that prohibit the repurchase of AAG common stock and the payment of common stock dividends through at least March 31, 2022, the provisions that restrict the payment of certain executive compensation until at least October 1, 2022, and a requirement to recall employees involuntarily terminated or furloughed after September 30, 2020. As was the case with PSP1, the PSP2 Agreement also imposes substantial reporting obligations on AAG and its Subsidiaries.

Pursuant to the PSP2 Agreement, Treasury provided AAG and its Subsidiaries financial assistance in an aggregate of approximately \$3.5 billion. As partial compensation to the U.S. Government for the provision of financial assistance under PSP2, AAG issued the PSP2 Promissory Note in the aggregate principal amount of \$1.0 billion and issued warrants (each a PSP2 Warrant and, collectively, the PSP2 Warrants) to Treasury to purchase up to an aggregate of approximately 6.6 million shares of AAG common stock for an exercise price of \$15.66 per share, subject to adjustment. See below for more information on the PSP2 Warrant Agreement and PSP2 Warrants.

For accounting purposes, the \$3.5 billion of aggregate financial assistance AAG and the Subsidiaries received pursuant to the PSP2 Agreement is allocated to the PSP2 Promissory Note, the PSP2 Warrants and other PSP2 financial assistance (the PSP2 Financial Assistance). The \$1.0 billion aggregate principal amount of the PSP2 Promissory Note was recorded as unsecured long-term debt, and the \$76 million total fair value of the PSP2 Warrants, estimated using a Black-Scholes option pricing model, was recorded in stockholders' deficit in AAG's consolidated balance sheet. The

remaining amount of approximately \$2.4 billion of PSP2 Financial Assistance was recognized as a credit to special items, net in the consolidated statement of operations in the first and second quarters of 2021, the period over which the continuation of payment of eligible employee wages, salaries and benefits was required.

PSP2 Warrant Agreement and PSP2 Warrants

As partial compensation to the U.S. Government for the provision of financial assistance under the PSP2 Agreement, and pursuant to the PSP2 Warrant Agreement, AAG issued the PSP2 Warrants to Treasury to purchase PSP2 Warrant Shares. The exercise price of the PSP2 Warrant Shares is \$15.66 per share, subject to certain anti-dilution provisions provided for in the PSP2 Warrants.

Pursuant to the PSP2 Warrant Agreement, AAG issued to Treasury PSP2 Warrants to purchase up to an aggregate of approximately 6.6 million shares of AAG common stock for an exercise price of \$15.66 per share, subject to adjustment.

The PSP2 Warrants do not have any voting rights and are freely transferrable, with registration rights. Each PSP2 Warrant expires on the fifth anniversary of the date of issuance of such PSP2 Warrant. The PSP2 Warrants will be exercisable either through net share settlement or cash, at AAG's option. The PSP2 Warrants were issued solely as compensation to the U.S. Government related to entry into the PSP2 Agreement. No separate proceeds (apart from the financial assistance described above) were received upon issuance of the PSP2 Warrants or will be received upon exercise thereof.

PSP3

On April 23, 2021 (the PSP3 Closing Date), the Subsidiaries, entered into a Payroll Support Program 3 Agreement (the PSP3 Agreement) with Treasury, with respect to PSP3 as provided pursuant to the ARP. In connection with AAG and the Subsidiaries' entry into the PSP3 Agreement, on the PSP3 Closing Date, AAG also entered into a warrant agreement (the PSP3 Warrant Agreement) with Treasury and issued the PSP3 Promissory Note to Treasury, with the Subsidiaries as guarantors.

PSP3 Agreement

In connection with PSP3, AAG and the Subsidiaries are required to comply with the relevant provisions of the ARP, which are substantially similar to the restrictions contained in the PSP1 Agreement, but are in effect for a longer time period. These provisions include the requirement that funds provided pursuant to the PSP3 Agreement be used exclusively for the continuation of payment of eligible employee wages, salaries and benefits, the prohibition against involuntary furloughs and reductions in employee pay rates and benefits, which expired on September 30, 2021, the provisions that prohibit the repurchase of AAG common stock and the payment of common stock dividends through at least September 30, 2022, and the provisions that restrict the payment of certain executive compensation until April 1, 2023. As was the case with PSP1 and PSP2, the PSP3 Agreement also imposes substantial reporting obligations on AAG and the Subsidiaries.

Pursuant to the PSP3 Agreement, Treasury provided AAG and the Subsidiaries financial assistance in an aggregate of approximately \$3.3 billion. As partial compensation to the U.S. Government for the provision of financial assistance under PSP3, AAG issued the PSP3 Promissory Note in the aggregate principal amount of \$946 million and issued warrants (each a PSP3 Warrant and, collectively, the PSP3 Warrants) to Treasury to purchase up to an aggregate of approximately 4.4 million shares of AAG common stock for an exercise price of \$21.75 per share, subject to adjustment. See below for more information on the PSP3 Warrant Agreement and PSP3 Warrants.

For accounting purposes, the \$3.3 billion of aggregate financial assistance AAG and the Subsidiaries received pursuant to the PSP3 Agreement is allocated to the PSP3 Promissory Note, the PSP3 Warrants and other PSP3 financial assistance (the PSP3 Financial Assistance). The \$946 million aggregate principal amount of the PSP3 Promissory Note was recorded as unsecured long-term debt, and the \$46 million total fair value of the PSP3 Warrants, estimated using a Black-Scholes option pricing model, was recorded in stockholders' deficit in AAG's consolidated balance sheet. The remaining amount of approximately \$2.3 billion of PSP3 Financial Assistance was recognized as a credit to special items, net in the consolidated statements of operations in the second and third quarters of 2021, the period over which the continuation of payment of eligible employee wages, salaries and benefits was required.

PSP3 Warrant Agreement and PSP3 Warrants

As partial compensation to the U.S. Government for the provision of financial assistance under the PSP3 Agreement, and pursuant to the PSP3 Warrant Agreement, AAG issued the PSP3 Warrants to Treasury to purchase PSP3 Warrant Shares. The exercise price of the PSP3 Warrant Shares is \$21.75 per share, subject to certain anti-dilution provisions provided for in the PSP3 Warrants.

Pursuant to the PSP3 Warrant Agreement, AAG issued to Treasury PSP3 Warrants to purchase up to an aggregate of approximately 4.4 million shares of AAG common stock for an exercise price of \$21.75 per share, subject to adjustment.

The PSP3 Warrants do not have any voting rights and are freely transferrable, with registration rights. Each PSP3 Warrant expires on the fifth anniversary of the date of issuance of such PSP3 Warrant. The PSP3 Warrants will be exercisable either through net share settlement or cash, at AAG's option. The PSP3 Warrants were issued solely as compensation to the U.S. Government related to entry into the PSP3 Agreement. No separate proceeds (apart from the financial assistance described above) were received upon issuance of the PSP3 Warrants or will be received upon exercise thereof.

(c) Recent Accounting Pronouncements

Accounting Standards Update (ASU) 2019-12: Simplifying the Accounting for Income Taxes (Topic 740)

This standard simplifies the accounting and disclosure requirements for income taxes by clarifying the existing guidance to improve consistency in the application of Accounting Standards Codification 740. This standard also removed the requirement to calculate income tax expense for the stand-alone financial statements of wholly-owned subsidiaries that are not subject to income tax. American adopted this standard effective January 1, 2021, and it did not have a material impact on its consolidated financial statements.

ASU 2021-10: Disclosures by Business Entities about Government Assistance (Topic 832)

This standard provides guidance on the disclosure requirements for business entities receiving government assistance. Specifically, entities are required to disclose information about the nature of the assistance received, including the related accounting, the affected line items on the financial statements and amounts, and the significant terms and conditions, including any commitments and contingencies. This standard is effective for annual periods beginning after December 15, 2021, and early adoption is permitted. American adopted this standard as of December 31, 2021. See (b) *Impact of COVID-19* above for disclosure related to the financial assistance American received from Treasury.

(d) Investments

Short-term investments primarily include debt securities and 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. For investments in an unrealized loss position, American determines whether a credit loss exists by considering information about the collectability of the instrument, current market conditions and reasonable and supportable forecasts of economic conditions. There have been no credit losses.

Equity investments are accounted for under the equity method if American is able to exercise significant influence over an investee. Equity investments for which American does not have significant influence are recorded at fair value or at cost, if fair value is not readily determinable, with adjustments for observable changes in price or impairments (referred to as the measurement alternative). American's share of equity method investee's financial results and changes in fair value are recorded in nonoperating other income, net on the consolidated statements of operations. See Note 7 for additional information related to American's investments.

(e) Restricted Cash and Short-term Investments

American has restricted cash and short-term investments related primarily to collateral held to support workers' compensation obligations, collateral associated with the payment of interest for the AAdvantage Financing and money market funds to be used to finance a substantial portion of the cost of the renovation and expansion of the Terminal at JFK.

(f) 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, which is recognized over the weighted average remaining useful life of the related fleet. American also provides an allowance for spare parts and supplies identified as excess or obsolete to reduce the carrying cost to the lower of cost or net realizable value. Aircraft fuel, spare parts and supplies are expensed when used.

(g) 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	

Total depreciation and amortization expense was \$2.3 billion for each of the years ended December 31, 2021 and 2020, and \$2.5 billion for the year ended December 31, 2019.

American assesses impairment of operating property and equipment when events and circumstances indicate that the assets may be impaired. An impairment of an asset or group of assets exists only when the sum of the estimated undiscounted cash flows expected to be generated directly by the assets are less than the carrying value of the assets. American groups assets principally by fleet-type when estimating future cash flows, which is generally the lowest level for which identifiable cash flows exist. Estimates of future cash flows are based on historical results adjusted to reflect management's best estimate of future market and operating conditions, including American's current fleet plan. If such assets are impaired, the impairment charge recognized is the amount by which the carrying value of the assets exceed their fair value. Fair value reflects management's best estimate including inputs from published pricing guides and bids from third parties as well as contracted sales agreements when applicable. In 2021, American retired its remaining Embraer 140 fleet and recorded \$27 million in non-cash special impairment charges reflecting the difference between the carrying values of these assets and their fair values.

At December 31, 2021 and 2020, prepaid expense and other on the consolidated balance sheets included \$29 million and \$164 million, respectively, of retired aircraft that are expected to be sold in the next year, and other assets on the consolidated balance sheets included \$382 million and \$400 million, respectively, of nonoperating retired aircraft.

(h) Leases

American determines 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 on American's consolidated balance sheets. 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, on American's consolidated balance sheets.

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 its consolidated balance sheets. 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.

(i) 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 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 availability and price volatility of aircraft fuel and travel demand.

(i) Goodwill

Goodwill represents the purchase price in excess of the fair value of the net assets acquired and liabilities assumed in connection with the merger with US Airways Group. American has one reporting unit. American assesses goodwill for impairment annually or more frequently if events or circumstances indicate that the fair value of goodwill may be lower than the carrying value. American's annual assessment date is October 1.

Goodwill is assessed for impairment by initially performing a qualitative assessment. If American determines that it is more likely than not that its goodwill may be impaired, it uses a quantitative approach to assess the asset's fair value and the amount of the impairment, if any. Based upon American's annual assessment, there was no goodwill impairment in 2021. The carrying value of American's goodwill on its consolidated balance sheets was \$4.1 billion as of December 31, 2021 and 2020.

(k) Other Intangibles, Net

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

Definite-Lived Intangible Assets

Definite-lived intangible assets are originally recorded at their acquired fair values, subsequently amortized over their respective estimated useful lives and are assessed for impairment whenever events and circumstances indicate that the assets may be impaired.

The following table provides information relating to American's amortizable intangible assets as of December 31, 2021 and 2020 (in millions):

	Decem	ber 31,
	2021	2020
Domestic airport slots	\$ 365	\$ 365
Customer relationships	300	300
Marketing agreements	105	105
Tradenames	35	35
Airport gate leasehold rights	137	137
Accumulated amortization	(786)	(745)
Total	\$ 156	\$ 197

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 for each of the years ended December 31, 2021, 2020 and 2019. American expects to record annual amortization expense for these intangible assets as follows (in millions):

2022	\$ 41
2023	7
2024	
2025	
2026	
2027 and thereafter	88
Total	\$156

Indefinite-Lived Intangible Assets

Indefinite-lived intangible assets include certain domestic airport slots and international slots and route authorities. American assesses indefinite-lived intangible assets for impairment annually or more frequently if events or circumstances indicate that the fair values of indefinite-lived intangible assets may be lower than their carrying values. American's annual assessment date is October 1.

Indefinite-lived intangible assets are assessed for impairment by initially performing a qualitative assessment. If American determines that it is more likely than not that its indefinite-lived intangible assets may be impaired, American uses a quantitative approach to assess the asset's fair value and the amount of the impairment, if any. Based upon American's annual assessment, there were no indefinite-lived intangible asset impairments in 2021. American had \$1.8 billion of indefinite-lived intangible assets on its consolidated balance sheets as of December 31, 2021 and 2020.

(I) Revenue Recognition

Revenue

The following are the significant categories comprising American's reported operating revenues (in millions):

	Year Ended December 31,		
	2021	2020	2019
Passenger revenue:			
Passenger travel	\$23,896	\$13,456	\$38,831
Loyalty revenue – travel (1)	2,167	1,062	3,179
Total passenger revenue	26,063	14,518	42,010
Cargo Other:	1,314	769	863
Loyalty revenue – marketing services (2)	2,166	1,825	2,361
Other revenue	337	223	527
Total other revenue	2,503	2,048	2,888
Total operating revenues	\$29,880	\$17,335	\$45,761

⁽¹⁾ Loyalty revenue included in passenger revenue is principally comprised of mileage credit redemptions, which were earned from travel or 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):

	Year Ended December 31,		ber 31,
	2021	2020	2019
Domestic	\$21,453	\$11,765	\$30,881
Latin America	3,506	1,852	5,047
Atlantic	965	654	4,624
Pacific	139	247	1,458
Total passenger revenue	\$26,063	\$14,518	\$42,010

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 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.

During the years ended December 31, 2021, 2020 and 2019, cash payments from co-branded credit card and other partners were \$3.4 billion, \$2.9 billion and \$3.9 billion, respectively.

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 unused 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 **one**world airline or other partner airlines, or by using the services of other program participants, such as American's co-branded credit cards, and certain 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 response to the COVID-19 pandemic, American suspended the expiration of mileage credits through March 31, 2022 and eliminated mileage reinstatement fees for canceled award tickets.

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 mileage credits that will not be redeemed using a statistical model based on historical redemption patterns to develop an estimate of the likelihood of future redemption. Given the inherent uncertainty of the current operating environment due to the COVID-19 pandemic, American will continue to monitor redemption patterns and may adjust its estimates in the future.

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 five 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. 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.

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 use a statistical model based on historical redemption patterns to develop an estimate of the likelihood of future redemption.

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. Loyalty revenue included in other revenue was \$2.2 billion, \$1.8 billion and \$2.4 billion for the years ended December 31, 2021, 2020 and 2019, 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 sheets and (2) ticket sales for transportation that has not yet been provided, reported as air traffic liability on American's consolidated balance sheets.

	Decem	ber 31,
	2021	2020
		llions)
Loyalty program liability	\$ 9,135	\$ 9,195
Air traffic liability	6,087	4,757
Total	\$15,222	\$13,952

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, 2020	\$ 9,195
Deferral of revenue	2,161
Recognition of revenue (1)	(2,221)
Balance at December 31, 2021 (2)	\$ 9,135

- 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 generally do not expire as long as that AAdvantage member has any type of qualifying activity at least every 18 months. In response to the COVID-19 pandemic, American suspended the expiration of mileage credits through March 31, 2022 and eliminated mileage reinstatement fees for canceled award tickets. As of December 31, 2021, American's current loyalty program liability was \$2.9 billion and represents American's current estimate of revenue expected to be recognized in the next 12 months based on historical as well as projected trends, with the balance reflected in long-term loyalty program liability expected to be recognized as revenue in periods thereafter. Given the inherent uncertainty of the current operating environment due to the COVID-19 pandemic, American will continue to monitor redemption patterns and may adjust its estimates in the future.

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 fluctuates with seasonal travel patterns. The contract duration of passenger tickets is generally one year. Accordingly, any revenue associated with tickets sold for future travel will be recognized within 12 months. For 2021, \$1.7 billion of revenue was recognized in passenger revenue that was included in American's air traffic liability at December 31, 2020. In response to the COVID-19 pandemic, American extended the contract duration for certain tickets to March 31, 2022, principally those tickets which were scheduled to expire from March 1, 2020 through March 31, 2021. Additionally, tickets to certain international destinations have extended contract duration to December 31, 2022. American also has eliminated change fees for most domestic and international tickets providing more flexibility for customers to change travel plans. Given these changes and the uncertainty surrounding the future demand for air travel, American's estimates of revenue that will be recognized from the air traffic liability for future flown or unused tickets as well as its estimates of refunds may be subject to variability and differ from historical experience.

American's ticket contract receivables relate to ticket sales to individual passengers primarily through the use of major credit cards and are reflected as accounts receivable, net on the accompanying consolidated balance sheets. These receivables are short-term, mostly settled within seven days after sale. All accounts receivable are reported net of an allowance for credit losses, which have been minimal. American considers past and future financial and qualitative factors when establishing the allowance for credit losses.

(m) 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.

(n) Selling Expenses

Selling expenses include credit card fees, commissions, third party distribution channel fees and advertising. Selling expenses associated with passenger revenue are expensed when the transportation or service is provided. Advertising costs are expensed as incurred. Advertising expense was \$105 million, \$57 million and \$144 million for the years ended December 31, 2021, 2020 and 2019, respectively.

(o) 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. The majority of American's stock awards are time vested restricted stock units, and the fair value of such awards 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.

(p) Foreign Currency Gains and Losses

Foreign currency gains and losses are recorded as part of other income, net within total nonoperating expense, net on American's consolidated statements of operations. For the years ended December 31, 2021, 2020 and 2019, respectively, foreign currency losses were \$4 million, \$24 million and \$32 million.

(q) Other Operating Expenses

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

(r) Regional Expenses

American's regional carriers provide scheduled air transportation under the brand name "American Eagle." The American Eagle carriers include AAG's wholly-owned regional carriers as well as third-party regional carriers. Substantially all of American's regional carrier arrangements are in the form of capacity purchase agreements. Expenses associated with American Eagle operations are classified as regional expenses on the consolidated statements of operations.

Beginning in the first quarter of 2021, aircraft fuel and related taxes as well as certain salaries, wages and benefits, other rent and landing fees, selling and other expenses are no longer allocated to regional expenses on American's consolidated statements of operations. The 2020 consolidated statement of operations has been recast to conform to the 2021 presentation. This statement of operations presentation change has no impact on total operating expenses or net loss.

Regional expenses for the years ended December 31, 2021, 2020, and 2019 include \$263 million, \$273 million and \$286 million of depreciation and amortization, respectively, and \$6 million, \$13 million and \$29 million of aircraft rent, respectively.

In 2021, 2020, and 2019, American recognized \$495 million, \$438 million and \$590 million, respectively, of expense under its capacity purchase agreement with Republic Airways 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		
	2021	2020	2019
PSP Financial Assistance (1)	\$(4,162)	\$(3,710)	\$ —
Severance expenses (2)	168	1,408	11
Litigation reserve adjustments	(19)		(53)
Mark-to-market adjustments on bankruptcy obligations, net (3)	(3)	(49)	(11)
Fleet impairment (4)	_	1,484	213
Labor contract expenses (5)	_	228	_
Fleet restructuring expenses (6)	_	_	271
Merger integration expenses (7)	_	_	191
Other operating special items, net	10	(18)	13
Mainline operating special items, net	(4,006)	(657)	635
PSP Financial Assistance (1)	(539)	(444)	_
Fleet impairment (4)	27	106	
Regional operating special items, net	(512)	(338)	
Operating special items, net	(4,518)	(995)	635
Mark-to-market adjustments on equity and other investments, net (8)	31	135	(5)
Debt refinancing, extinguishment and other, net	29	35	16
Nonoperating special items, net	60	170	11

⁽¹⁾ The 2021 PSP Financial Assistance represents recognition of a portion of the financial assistance received from Treasury pursuant to the PSP2 and PSP3 Agreements. See Note 1(b) for further information. The 2020 PSP Financial Assistance represents recognition of a portion of the financial assistance received from Treasury pursuant to the PSP1 Agreement.

- (2) The 2021 and 2020 severance expenses include salary and medical costs primarily associated with certain team members who opted into voluntary early retirement programs offered as a result of reductions to American's operation due to the COVID-19 pandemic. Cash payments primarily associated with American's voluntary early retirement programs were approximately \$520 million and \$365 million in 2021 and 2020, respectively.
 - The 2019 severance expenses primarily included costs associated with reductions of management and support staff team members.
- (3) Bankruptcy obligations that will be settled in shares of AAG common stock are marked-to-market based on AAG's stock price.
- (4) Fleet impairment charges resulted from the retirement of certain aircraft earlier than planned driven by the severe decline in air travel due to the COVID-19 pandemic. In 2021, American retired its remaining Embraer 140 fleet resulting in a non-cash write-down of these regional aircraft. See Note 1(g) for further information related to these charges.

In 2020, American retired its entire Airbus A330-200, Boeing 757, Boeing 767, Airbus A330-300 and Embraer 190 fleets as well as certain Embraer 140 and Bombardier CRJ200 aircraft resulting in a \$1.5 billion non-cash write-down of mainline and regional aircraft and associated spare parts and \$109 million in cash charges primarily for impairment of ROU assets and lease return costs.

The 2019 fleet impairment principally included a non-cash write-down of aircraft related to the retirement of American's Embraer 190 fleet.

- (5) The 2020 labor contract expenses primarily related to one-time charges due to the ratification of a new contract with the Transport Workers Union and International Association of Machinists & Aerospace Workers (TWU-IAM Association) for American's maintenance and fleet service team members, including signing bonuses and adjustments to vacation accruals resulting from pay rate increases.
- (6) Fleet restructuring expenses principally included accelerated depreciation and rent expense for aircraft and related equipment expected to be retired earlier than planned.
- (7) Merger integration expenses included costs associated with integration projects, principally American's technical operations, flight attendant, human resources and payroll systems.
- (8) Mark-to-market adjustments on equity and other investments, net primarily related to net unrealized gains and losses associated with American's equity investments in China Southern Airlines Company Limited (China Southern Airlines) and in 2021, Vertical Aerospace Ltd. (Vertical), and certain treasury rate lock derivative instruments.

3. Debt

Long-term debt included on American's consolidated balance sheets consisted of (in millions):

	Decem	ber 31,
	2021	2020
Secured		
2013 Term Loan Facility, variable interest rate of 1.85%, installments through		
2025 ^(a)	\$1,770	\$1,788
2013 Revolving Facility (a)	_	750
2014 Term Loan Facility, variable interest rate of 1.85%, installments through		
2027 ^(a)	1,208	1,220
2014 Revolving Facility (a)		1,643
April 2016 Spare Parts Term Loan Facility (a)	_	960
April 2016 Revolving Facility (a)	_	450
December 2016 Term Loan Facility, variable interest rate of 2.11%, installments		
through 2023 (a)	1,188	1,200
11.75% senior secured notes, interest only payments until due in July 2025 (b)	2.500	2,500
10.75% senior secured IP notes, interest only payments until due in February	2,000	2,000
2026 (b)	1,000	1,000
10.75% senior secured LGA/DCA notes, interest only payments until due in	1,000	1,000
February 2026 (b)	200	200
Treasury Term Loan Facility (c)	200	550
5.50% senior secured notes, installments beginning in July 2023 until due in April		550
2026 (d)	3,500	
5.75% senior secured notes, installments beginning in July 2026 until due in April	3,300	
2029 ^(d)	3,000	
2029 (-)	3,000	

	December 31,	
	2021	2020
AAdvantage Term Loan Facility, variable interest rate of 5.50%, installments beginning in July 2023 through April 2028 (d)	3,500	_
from 2.88% to 8.39%, averaging 3.84%, maturing from 2022 to 2034 (e) Equipment loans and other notes payable, fixed and variable interest rates	9,357	11,013
ranging from 1.27% to 4.64%, averaging 1.82%, maturing from 2022 to		
2032	3,433	4,417
5.38%, maturing from 2026 to 2036 ^(f)	1,129	1,040
Total long-term debt	31,785	28,731
Less: Total unamortized debt discount, premium and issuance costs	428	321
Less: Current maturities	1,568	2,700
Long-term debt, net of current maturities	\$29,789	\$25,710

As of December 31, 2021, the maximum availability under American's revolving credit and other facilities is as follows (in millions):

2013 Revolving Facility	\$ 750
2014 Revolving Facility	1,643
April 2016 Revolving Facility	450
Short-term Revolving and Other Facilities	568
Total	

American has an undrawn \$500 million short-term revolving credit facility, which was set to expire at the beginning of January 2022 but which has been extended through the beginning of January 2023. Beginning January 2, 2022, the available amount thereunder decreased to \$150 million. American also currently has approximately \$68 million of available borrowing base under a cargo receivables facility that was entered into in December 2020 and is set to expire in December 2022. The December 2016 Credit Facilities provide for a revolving credit facility that may be established thereunder in the future.

Secured financings, including revolving credit and other facilities, are collateralized by assets, consisting primarily of aircraft, engines, simulators, aircraft spare parts, airport gate leasehold rights, route authorities, airport slots, certain receivables, certain intellectual property and certain loyalty program assets.

At December 31, 2021, the maturities of long-term debt are as follows (in millions):

2022	\$ 1,637
2023	
2024	3,467
2025	
2026	4,412
2027 and thereafter	10,353
Total	\$31,785

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

2013 Credit Facilities

In November 2019, American and AAG entered into the Sixth Amendment to Amended and Restated Credit and Guaranty Agreement, amending the Amended and Restated Credit and Guaranty Agreement dated as of May 21, 2015 (as previously amended, the 2013 Credit Agreement; the revolving credit 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), which reduced the total aggregate commitments under the 2013 Revolving Facility to \$750 million from \$1.0 billion. In addition, certain lenders party to the 2013 Credit Agreement extended the maturity date of their commitments under the 2013 Revolving Facility to October 2024 from October 2023.

In March 2021, American repaid in full the \$750 million of outstanding revolving loans under the 2013 Revolving Facility that was drawn in April 2020. Following the March 2021 repayment, American is able to draw upon the commitment under the 2013 Revolving Facility again as needed upon the terms of the 2013 Credit Agreement or leave it undrawn, in each case, until such commitment expires, which is currently scheduled to occur in October 2024. As of December 31, 2021, there were no borrowings or letters of credit outstanding under the 2013 Revolving Facility.

2014 Credit Facilities

In November 2019, American and AAG entered into the Seventh Amendment to Amended and Restated Credit and Guaranty Agreement, amending the Amended and Restated Credit and Guaranty Agreement dated as of April 20, 2015 (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), which increased the total aggregate commitments under the 2014 Revolving Facility to \$1.6 billion from \$1.5 billion. In addition, certain lenders party to the 2014 Credit Agreement extended the maturity date of their commitments under the 2014 Revolving Facility to October 2024 from October 2023.

In January 2020, American and AAG entered into the Eighth Amendment to the 2014 Credit Agreement, pursuant to which American refinanced the 2014 Term Loan Facility, increasing the total aggregate principal amount outstanding to \$1.2 billion, reducing the LIBOR margin from 2.00% to 1.75%, with a LIBOR floor of 0%, and reducing the base rate margin from 1.00% to 0.75%. In addition, the maturity date for the 2014 Term Loan Facility was extended to January 2027 from October 2021.

In March 2021, American repaid in full the \$1.6 billion of outstanding revolving loans under the 2014 Revolving Facility that was drawn in April and May 2020. Following the March 2021 repayment, American is able to draw upon the commitment under the 2014 Revolving Facility again as needed upon the terms of the 2014 Credit Agreement or leave it undrawn, in each case, until such commitment expires, which is currently scheduled to occur in October 2024. As of December 31, 2021, there were no borrowings or letters of credit outstanding under the 2014 Revolving Facility.

April 2016 Credit Facilities

In November 2019, American and AAG entered into the Fifth Amendment to Credit and Guaranty Agreement, amending the Credit and Guaranty Agreement dated as of April 29, 2016 (as previously amended, the April 2016 Credit Agreement; the revolving credit facility established thereunder, the April 2016 Revolving Facility; the term loan facility established thereunder, the April 2016 Spare Parts

Term Loan Facility; and the April 2016 Revolving Facility together with the April 2016 Spare Parts Term Loan Facility, the April 2016 Credit Facilities), which increased the total aggregate commitments under the April 2016 Revolving Facility to \$450 million from \$300 million. In addition, certain lenders party to the April 2016 Credit Agreement extended the maturity date of their commitments under the April 2016 Revolving Facility to October 2024 from October 2023.

In March 2021, American repaid in full the \$450 million of outstanding revolving loans under the April 2016 Revolving Facility that was drawn in April 2020. Following the March 2021 repayment, American is able to draw upon the commitment under the April 2016 Revolving Facility again as needed upon the terms of the April 2016 Credit Agreement or leave it undrawn, in each case, until such commitment expires, which is currently scheduled to occur in October 2024.

On July 22, 2021, American repaid in full the \$950 million aggregate principal amount of outstanding term loans under, and terminated, the April 2016 Spare Parts Term Loan Facility. The April 2016 Revolving Facility, in an available aggregate principal amount of \$450 million, remains in place. As of December 31, 2021, there were no borrowings outstanding under the April 2016 Revolving Facility.

December 2016 Credit Facilities

In December 2016, American and AAG entered into the Amended and Restated Credit and Guaranty Agreement, dated as of December 15, 2016 (as amended, the December 2016 Credit Agreement; the term loan facility established thereunder, the December 2016 Term Loan Facility; and together with the revolving credit facility that may be established thereunder in the future, the December 2016 Credit Facilities).

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, 2021:

	2013 Cre	Credit Facilities 2014 Credit Facilities		it Facilities	April 2016 Credit Facilities	December 2016 Credit Facilities
	2013 Term Loan	2013 Revolving Facility	2014 Term Loan	2014 Revolving Facility	April 2016 Revolving Facility	December 2016 Term Loan
Aggregate principal issued or credit facility availability (in millions)	\$1,919	\$750	\$1,280	\$1,643	\$450	\$1,250
Principal outstanding or drawn (in millions)	\$1,770	\$—	\$1,208	\$—	\$—	\$1,188
Maturity date	June 2025	October 2024	January 2027	October 2024	October 2024	December 2023
LIBOR margin	1.75%	2.00%	1.75%	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%.

Subject to certain limitations and exceptions, the Credit Facilities are secured by collateral, including certain spare parts, slots, route authorities, simulators and 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 "Certain 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 an aggregate of at least \$2.0 billion of unrestricted cash and cash equivalents and amounts available to be drawn under revolving credit facilities 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) Senior Secured Notes

11.75% Senior Secured Notes

In June 2020, American issued \$2.5 billion aggregate principal amount of 11.75% senior secured notes due 2025 (the 11.75% Senior Secured Notes) at a price equal to 99% of their aggregate principal amount. The 11.75% Senior Secured Notes bear interest at a rate of 11.75% per annum (subject to increase if the collateral coverage ratio described below is not met). Interest on the 11.75% Senior Secured Notes is payable semiannually in arrears on January 15 and July 15 of each year, which began on January 15, 2021. The 11.75% Senior Secured Notes will mature on July 15, 2025. The obligations of American under the 11.75% Senior Secured Notes are fully and unconditionally guaranteed on a senior unsecured basis by AAG.

The 11.75% Senior Secured Notes were issued pursuant to an indenture, dated as of June 30, 2020 (the 11.75% Senior Secured Notes Indenture), by and among American, AAG and Wilmington Trust, National Association, as trustee (the 11.75% Senior Secured Notes Trustee). The 11.75% Senior Secured Notes are American's senior secured obligations. Subject to certain limitations and exceptions, the 11.75% Senior Secured Notes are secured on a first-lien basis by security interests in certain assets, rights and properties utilized by American in providing its scheduled air carrier services to and from certain airports in the United States and certain airports in Australia, Canada, the Caribbean, Central America, China, Hong Kong, Japan, Mexico, South Korea, and Switzerland (collectively, the First Lien 11.75% Senior Secured Notes Collateral). American's obligations with respect to the 11.75% Senior Secured Notes are also secured on a second-lien basis by security interests in certain assets, rights and properties utilized by American in providing its scheduled air carrier services to and from certain airports in the United States and certain airports in the European Union and the United Kingdom (collectively, the Second Lien 11.75% Senior Secured Notes Collateral and together with the First Lien 11.75% Senior Secured Notes Collateral, the 11.75% Senior Secured Notes Collateral). American may be required to pledge additional collateral in the future under the terms of the 11.75% Senior Secured Notes, and in certain circumstances may elect to pledge

additional collateral as a replacement for existing collateral. The Second Lien 11.75% Senior Secured Notes Collateral also secures the 2014 Credit Facilities on a first-lien basis.

American may redeem the 11.75% Senior Secured Notes, in whole at any time or in part from time to time, at a redemption price equal to 100% of the principal amount of the 11.75% Senior Secured Notes being redeemed plus a make whole premium, together with accrued and unpaid interest thereon, if any, to (but not including) the redemption date.

In the event of a specified change of control, each holder of 11.75% Senior Secured Notes may require American to repurchase its 11.75% Senior Secured Notes in whole or in part at a repurchase price of 101% of the aggregate principal amount thereof, plus accrued and unpaid interest thereon, if any, to (but not including) the repurchase date.

American is required to deliver an appraisal of the First Lien 11.75% Senior Secured Notes Collateral and officer's certificate on a semi-annual basis demonstrating the calculation of a collateral coverage ratio in relation to the First Lien 11.75% Senior Secured Notes Collateral as of the end of each semi-annual period based on such appraisal. If American fails to deliver the officer's certificate in a timely manner or the collateral coverage ratio is less than 1.6 to 1.0 as of the end of the semi-annual period, then, subject to an opportunity to cure the deficiency in the collateral coverage ratio, American will be required to pay special interest in an additional amount equal to 2.0% per annum of the outstanding principal amount of the 11.75% Senior Secured Notes until the collateral coverage ratio is established to be at least 1.6 to 1.0.

The 11.75% Senior Secured Notes Indenture contains covenants that, among other things, restrict the ability of AAG and the ability of its restricted subsidiaries (including American) to: (i) pay dividends, redeem or repurchase stock or make other distributions or restricted payments, (ii) incur liens on the 11.75% Senior Secured Notes Collateral and dispose of or release the 11.75% Senior Secured Notes Collateral, (iii) repay subordinated indebtedness, (iv) make certain loans and investments, (v) incur indebtedness or issue preferred stock, (vi) merge, consolidate or sell assets, (vii) undergo certain change of control transactions, and (viii) designate subsidiaries as unrestricted. These covenants are subject to a number of important exceptions and qualifications set forth in the 11.75% Senior Secured Notes Indenture.

Upon the occurrence of any event of default (other than certain bankruptcy or insolvency or reorganization events affecting AAG or certain of its subsidiaries, including American), the 11.75% Senior Secured Notes may be declared to be due and payable immediately. Upon the occurrence of certain bankruptcy, insolvency or reorganization events affecting American or certain of its subsidiaries (including American), all outstanding 11.75% Senior Secured Notes will become due and payable immediately without further action or notice on the part of the 11.75% Senior Secured Notes Trustee or any holder of the 11.75% Senior Secured Notes.

10.75% Senior Secured Notes

On September 25, 2020 (the 10.75% Senior Secured Notes Closing Date), American issued \$1.0 billion in initial principal amount of senior secured IP notes (the IP Notes) and \$200 million in initial principal amount of senior secured LGA/DCA notes (the LGA/DCA Notes and together with the IP Notes, the 10.75% Senior Secured Notes). The obligations of American under the 10.75% Senior Secured Notes are fully and unconditionally guaranteed (the 10.75% Senior Secured Notes Guarantees) on a senior unsecured basis by AAG. The 10.75% Senior Secured Notes bear interest at a rate of 10.75% per annum in cash. For any interest period on or prior to September 1, 2022,

American may, at its election, pay interest at a rate of 12.00% per annum payable one-half in cash and one-half in kind. Interest on the 10.75% Senior Secured Notes is payable semiannually in arrears on September 1 and March 1 of each year, which began on March 1, 2021. The 10.75% Senior Secured Notes will mature on February 15, 2026.

The 10.75% Senior Secured Notes were each issued pursuant to a separate indenture, dated as of September 25, 2020 (individually, the IP Notes Indenture and the LGA/DCA Notes Indenture and collectively, the 10.75% Senior Secured Notes Indentures), by and among American, AAG and Wilmington Trust, National Association, as trustee and as collateral trustee (the 10.75% Senior Secured Notes Trustee). The IP Notes are secured by a first lien security interest on certain intellectual property of American, including the "American Airlines" trademark and the "aa.com" domain name in the United States and certain foreign jurisdictions (the IP Collateral), and a second lien on certain slots related to American's operations at New York LaGuardia and Ronald Reagan Washington National airports and certain other assets (the LGA/DCA Collateral and together with the IP Collateral, the 10.75% Senior Secured Notes Collateral). Subject to certain conditions, American will be permitted to incur up to \$4.0 billion of additional pari passu debt and unlimited second lien debt secured by the IP Collateral securing the IP Notes. The LGA/DCA Notes are secured by a first lien security interest in the LGA/DCA Collateral. American may be required to pledge additional collateral in the future under the terms of the 10.75% Senior Secured Notes, and in certain circumstances may elect to pledge additional collateral including as a replacement for existing collateral. The LGA/DCA Collateral also secures on a first-lien basis the December 2016 Credit Facilities.

On or prior to the fourth anniversary of the 10.75% Senior Secured Notes Closing Date, American may redeem all or any part of the 10.75% Senior Secured Notes, at its option, at a redemption price equal to 100% of the principal amount of the 10.75% Senior Secured Notes redeemed plus a make whole premium, together with accrued and unpaid interest thereon, if any. After the fourth anniversary of the 10.75% Senior Secured Notes Closing Date and on or prior to the fifth anniversary of the 10.75% Senior Secured Notes, at its option, at a redemption price equal to 105.375% of the principal amount of the 10.75% Senior Secured Notes redeemed, together with accrued and unpaid interest thereon, if any. After the fifth anniversary of the 10.75% Senior Secured Notes Closing Date, American may redeem all or any part of the 10.75% Senior Secured Notes, at its option, at par, together with accrued and unpaid interest thereon, if any.

In the event of a specified change of control, each holder of 10.75% Senior Secured Notes may require American to repurchase its 10.75% Senior Secured Notes, in whole or in part, at a repurchase price of 101% of the aggregate principal amount of the 10.75% Senior Secured Notes so repurchased, plus accrued and unpaid interest thereon, if any, to (but not including) the repurchase date.

The 10.75% Senior Secured Notes Indentures contain covenants that, among other things, restrict the ability of AAG and the ability of its restricted subsidiaries (including American) to: (i) pay dividends, redeem or repurchase stock or make other distributions or restricted payments, (ii) incur liens on the 10.75% Senior Secured Notes Collateral and dispose of or release the 10.75% Senior Secured Notes Collateral, (iii) repay subordinated indebtedness, (iv) make certain loans and investments, (v) incur indebtedness or issue preferred stock, (vi) merge, consolidate or sell assets, and (vii) designate subsidiaries as unrestricted. In addition, the 10.75% Senior Secured Notes Indentures include covenants that require AAG to maintain (a) an aggregate of at least \$2.0 billion of unrestricted cash and cash equivalents and amounts available to be drawn under revolving credit facilities and (b) a certain minimum ratio of appraised value of the collateral to outstanding debt secured thereby on a first lien basis as further described below in "Certain Covenants." These covenants are subject to a number of important exceptions and qualifications set forth in the 10.75% Senior Secured Notes Indentures.

Upon the occurrence of any event of default (other than certain bankruptcy or insolvency or reorganization events affecting AAG or certain of its subsidiaries, including American), the 10.75% Senior Secured Notes may be declared to be due and payable immediately. Upon the occurrence of certain bankruptcy, insolvency or reorganization events affecting AAG or certain of its subsidiaries (including American), all outstanding 10.75% Senior Secured Notes will become due and payable immediately without further action or notice on the part of the 10.75% Senior Secured Notes Trustee or any holder of the 10.75% Senior Secured Notes.

(c) Treasury Loan Agreement

On September 25, 2020, American and AAG entered into a Loan and Guarantee Agreement (the Treasury Loan Agreement) with Treasury, which provided for a secured term loan facility (the Treasury Term Loan Facility) that permitted American to borrow up to \$5.5 billion. Subsequently, on October 21, 2020, American and AAG entered into an amendment to the Treasury Loan Agreement, which increased the borrowing amount to up to \$7.5 billion.

In September 2020, American borrowed \$550 million under the Treasury Term Loan Facility, and on March 24, 2021, used proceeds from the AAdvantage Financing to prepay in full the \$550 million of outstanding loans under the Treasury Term Loan Facility and terminated the Treasury Loan Agreement.

(d) AAdvantage Financing

On March 24, 2021 (the AAdvantage Financing Closing Date), American and AAdvantage Loyalty IP Ltd., a Cayman Islands exempted company incorporated with limited liability and an indirect whollyowned subsidiary of American (Loyalty Issuer and, together with American, the AAdvantage Issuers), completed the offering of \$3.5 billion aggregate principal amount of 5.50% Senior Secured Notes due 2026 (the 2026 Notes) and \$3.0 billion aggregate principal amount of 5.75% Senior Secured Notes due 2029 (the 2029 Notes, and together with the 2026 Notes, the AAdvantage Notes). The AAdvantage Notes are fully and unconditionally guaranteed (the AAdvantage Note Guarantees) on a senior unsecured basis by AAG and fully and unconditionally guaranteed on a senior secured basis, jointly and severally, by AAdvantage Holdings 1, Ltd., a Cayman Islands exempted company incorporated with limited liability and a direct wholly-owned subsidiary of American, and AAdvantage Holdings 2, Ltd., a Cayman Islands exempted company incorporated with limited liability and an indirect whollyowned subsidiary of American and the direct parent of Loyalty Issuer (HoldCo2, and together with AAdvantage Holdings 1, Ltd., the Original SPV Guarantors), and as of August 27, 2021, certain Luxembourg limited liability companies and partnerships that are direct or indirect subsidiaries of Loyalty Issuer including Madrid IP Lux HoldCo SCS, a Luxembourg common limited partnership (Madrid IP SCS) (collectively, the Madrid SPV Guarantors and, together with the Original SPV Guarantors, the SPV Guarantors, and the SPV Guarantors together with AAG, the AAdvantage Guarantors). The AAdvantage Notes were issued pursuant to an indenture, dated as of March 24, 2021 (the AAdvantage Indenture), by and among the AAdvantage Issuers, the AAdvantage Guarantors and Wilmington Trust, National Association, as trustee and as collateral custodian.

Concurrent with the issuance of the AAdvantage Notes, the AAdvantage Issuers, as co-borrowers, entered into a term loan credit and guaranty agreement, dated March 24, 2021, with Barclays Bank PLC, as administrative agent, Wilmington Trust, National Association, as collateral administrator, and the lenders party thereto, providing for a \$3.5 billion term loan facility (the AAdvantage Term Loan Facility and collectively with the AAdvantage Notes, the AAdvantage Financing) and pursuant to which

the full \$3.5 billion of term loans (the AAdvantage Loans) were drawn on the AAdvantage Financing Closing Date. The AAdvantage Loans are fully and unconditionally guaranteed (together with the AAdvantage Note Guarantees, the AAdvantage Guarantees) by the AAdvantage Guaranters.

Subject to certain permitted liens and other exceptions, the AAdvantage Notes, AAdvantage Loans and AAdvantage Guarantees provided by the SPV Guarantors will be secured by a first-priority security interest in, and pledge of, various agreements with respect to the AAdvantage program (the AAdvantage Agreements) (including all payments thereunder) and certain IP Licenses (as defined below), certain deposit accounts that will receive cash under the AAdvantage Agreements, certain reserve accounts, the equity of each of Loyalty Issuer and the SPV Guarantors and substantially all other assets of Loyalty Issuer and the SPV Guarantors including Transferred AAdvantage IP (as defined below) (collectively, the AAdvantage Collateral).

Payment Terms of the AAdvantage Notes and AAdvantage Loans under the AAdvantage Term Loan Facility

Interest on the AAdvantage Notes is payable in cash, quarterly in arrears on the 20th day of each January, April, July and October (each, an AAdvantage Payment Date), which began on July 20, 2021. The 2026 Notes will mature on April 20, 2026, and the 2029 Notes will mature on April 20, 2029. The outstanding principal on the 2026 Notes will be repaid in quarterly installments of \$292 million on each AAdvantage Payment Date, beginning on July 20, 2023. The outstanding principal on the 2029 Notes will be repaid in quarterly installments of \$250 million on each AAdvantage Payment Date, beginning on July 20, 2026.

The AAdvantage Issuers may redeem the AAdvantage Notes, at their option, in whole at any time or in part from time to time, at a redemption price equal to 100% of the principal amount of the AAdvantage Notes redeemed plus a "make-whole" premium, together with accrued and unpaid interest to the date of redemption.

The scheduled maturity date of the AAdvantage Loans under the AAdvantage Term Loan Facility is April 20, 2028. The AAdvantage Loans bear interest at a variable rate equal to LIBOR (but not less than 0.75% per annum), plus a margin of 4.75% per annum, payable on each AAdvantage Payment Date. The outstanding principal on the AAdvantage Loans will be repaid in quarterly installments of \$175 million, on each AAdvantage Payment Date beginning with the AAdvantage Payment Date in July 2023. These amortization payments (as well as those for the AAdvantage Notes) will be subject to the occurrence of certain early amortization events, including the failure to satisfy a minimum debt service coverage ratio at specified determination dates.

Prepayment of some or all of the AAdvantage Loans outstanding under the AAdvantage Term Loan Facility is permitted, although payment of an applicable premium is required as specified in the AAdvantage Term Loan Facility.

The AAdvantage Indenture and the AAdvantage Term Loan Facility contain mandatory prepayment provisions triggered upon (i) the issuance or incurrence by Loyalty Issuer or the SPV Guarantors of certain indebtedness or (ii) the receipt by American or its subsidiaries of net proceeds from pre-paid frequent flyer (i.e., AAdvantage) mile sales exceeding \$505 million. Each of these prepayments would also require payment of an applicable premium. Certain other events, including the occurrence of a change of control with respect to AAG and certain AAdvantage Collateral sales exceeding a specified threshold, will also trigger mandatory repurchase or mandatory prepayment provisions under the AAdvantage Indenture and the AAdvantage Term Loan Facility, respectively.

Other Terms of the AAdvantage Indenture and the AAdvantage Term Loan Facility

The AAdvantage Indenture and the AAdvantage Term Loan Facility contain certain covenants that limit the ability of Loyalty Issuer, the SPV Guarantors and, in certain circumstances, American and AAG, to among other things, (i) incur additional indebtedness and make restricted payments, (ii) incur certain liens on the AAdvantage Collateral, (iii) merge, consolidate or sell substantially all of their assets, (iv) dispose of the AAdvantage Collateral, (v) sell pre-paid frequent fiver (i.e. AAdvantage) miles in excess of \$550 million in the aggregate, and (vi) terminate, amend, waive, supplement or modify the IP Licenses, or exercise rights and remedies thereunder, except under certain circumstances. American and Loyalty Issuer are also prohibited from substantially reducing the AAdvantage program business or modifying the terms of the AAdvantage program in a manner that would reasonably be expected to materially impair repayment of the AAdvantage Financing obligations (described as a Payment Material Adverse Effect in each of the AAdvantage Indenture and the AAdvantage Term Loan Facility), and AAG and its subsidiaries are prohibited from changing the policies and procedures of the AAdvantage program in a manner that would reasonably be expected to have a Payment Material Adverse Effect or operating a competing loyalty program. Notwithstanding these restrictions, the AAdvantage program is expected to operate as it has in the past, and the entry into the AAdvantage Financing is not expected to have any impact on the benefits offered to AAdvantage members.

The AAdvantage Indenture and the AAdvantage Term Loan Facility also require the AAdvantage Issuers to comply with certain affirmative covenants, including the requirement to use commercially reasonable efforts to cause sufficient counterparties to AAdvantage Agreements to direct at least 90% of payments with respect to the AAdvantage program on a quarterly basis into a collections account, for application to the payment of fees, principal and interest on the AAdvantage Notes and the AAdvantage Loans pursuant to a payment waterfall described in the AAdvantage Indenture and the AAdvantage Term Loan Facility, respectively. In addition, the AAdvantage Indenture and the AAdvantage Term Loan Facility require AAG to maintain minimum liquidity, defined as the sum of (a) unrestricted cash and cash equivalents and (b) the aggregate principal amount committed and available to be drawn under all of AAG's revolving credit and other facilities, at the close of any business day of at least \$2.0 billion.

Subject to certain materiality thresholds, qualifications, exceptions, "baskets" and grace and cure periods, the AAdvantage Indenture and the AAdvantage Term Loan Facility contain various events of default, including payment defaults, covenant defaults, cross-defaults to certain other indebtedness, termination of certain agreements related to the AAdvantage program, bankruptcy events of Loyalty Issuer or any SPV Guarantor, and a change of control of Loyalty Issuer or any SPV Guarantor. A bankruptcy event of American is not itself an event of default; following an American bankruptcy, an event of default would only occur if American failed to satisfy certain enumerated bankruptcy case milestones, including an assumption of the AAdvantage Financing by a certain date. Upon the occurrence of an event of default, the outstanding obligations under the AAdvantage Indenture and the AAdvantage Term Loan Facility may (or, with respect to the bankruptcy events noted above, shall) be accelerated and become due and payable immediately.

Terms of Certain Intercompany Agreements Related to the AAdvantage Financing

In connection with the issuance of the AAdvantage Notes and entry into the AAdvantage Term Loan Facility, American, Loyalty Issuer and the SPV Guarantors entered into a series of transactions that resulted in the transfer to Loyalty Issuer or Madrid IP SCS of, among other things, American's rights to certain data and other intellectual property used in the AAdvantage program (subject to certain

exceptions) (such assets, the Transferred AAdvantage IP) and certain rights of American under specified AAdvantage Agreements. Loyalty Issuer, the SPV Guarantors and American have entered into a series of intercompany license agreements (collectively, the IP Licenses) pursuant to which Loyalty Issuer has indirectly granted to American an exclusive, irrevocable (subject to certain termination rights), perpetual, worldwide, royalty-bearing sublicense to use the Transferred AAdvantage IP. The IP Licenses would be terminated, and American's right to use the Transferred AAdvantage IP would cease, upon specified termination events, including, but not limited to, the occurrence of an event of default under the AAdvantage Indenture or the AAdvantage Term Loan Facility. In certain circumstances, such a termination would trigger a liquidated damages payment in an amount that is greater than the initial principal amount of the AAdvantage Notes and the AAdvantage Loans.

In addition, proceeds from the AAdvantage Financing were loaned by Loyalty Issuer to American pursuant to an intercompany note that was guaranteed by AAG. The borrowings under this intercompany note are payable on demand by Loyalty Issuer or, after the occurrence and during the continuance of an event of default under the AAdvantage Financing, by the master collateral agent under the AAdvantage Financing.

(e) EETCs

2021-1 Aircraft EETCs

In November 2021, American created two pass-through trusts which issued approximately \$960 million aggregate face amount of Series 2021-1 Class A and Class B EETCs (the 2021-1 Aircraft EETCs) in connection with the financing of 26 aircraft previously delivered or to be delivered to American through September 2022 (the 2021-1 Aircraft). As of December 31, 2021, approximately \$94 million of the proceeds had been used to purchase equipment notes issued by American in connection with the financing of five aircraft under the 2021-1 Aircraft EETCs, all of which was used to repay existing indebtedness. Interest and principal payments on equipment notes issued in connection with the 2021-1 Aircraft EETCs are payable semi-annually in January and July each year, with interest payments scheduled to begin in July 2022 and with principal payments scheduled to begin in January 2023. The remaining proceeds of approximately \$866 million as of December 31, 2021 were being held in escrow with a depositary for the benefit of the holders of the 2021-1 Aircraft EETCs until such time as American issues additional equipment notes with respect to the remaining 2021-1 Aircraft to the pass-through trusts, which will purchase such additional equipment notes with the escrowed funds. These escrowed funds are not guaranteed by American and are not reported as debt on its consolidated balance sheet because the proceeds held by the depositary for the benefit of the holders of the 2021-1 Aircraft EETCs are not American's assets.

Certain information regarding the 2021-1 Aircraft EETC equipment notes, as of December 31, 2021, is set forth in the table below.

	2021-1 Aircraft EETCs	
	Series A	Series B
Aggregate principal issued	\$758 million	\$202 million
Remaining escrowed proceeds	\$684 million	\$182 million
Fixed interest rate per annum	2.875%	3.95%
Maturity date	July 2034	July 2030

(f) Special Facility Revenue Bonds

In January 2020, American and British Airways announced the start of construction projects to upgrade New York's JFK Terminal 8 (the Terminal). The construction project is currently scheduled to be completed in 2023 and is estimated to cost \$439 million, of which \$298 million was funded with proceeds of the special facility revenue bonds issued by the New York Transportation Development Corporation (NYTDC) on behalf of American in June 2020 (the 2020 JFK Bonds) and approximately \$84 million of which was funded with proceeds of the approximately \$150 million of special facility revenue bonds NYTDC issued in June 2021 (the 2021 JFK Bonds).

American is required to pay debt service on the 2021 JFK Bonds through payments under a loan agreement with NYTDC (as amended), and American and AAG guarantee the 2021 JFK Bonds. American continues to pay debt service on the outstanding bonds issued by NYTDC on behalf of American in 2016 and 2020 (the 2016 and 2020 JFK Bonds) and American and AAG continue to guarantee the 2016 and 2020 JFK Bonds. American's and AAG's obligations under these guarantees are secured by a leasehold mortgage on American's lease of the Terminal and related property from the Port Authority of New York and New Jersey.

The 2021 JFK Bonds, in aggregate, were priced at par value. The gross proceeds from the issuance of the 2021 JFK Bonds were approximately \$150 million. Of this amount, \$4 million was used to fund the costs of issuance of the 2021 JFK Bonds, \$62 million was used to fund the redemption of the 2016 and 2020 JFK Bonds due August 2021, with the remaining amount of proceeds received to be held in restricted cash and short-term investments on the consolidated balance sheet and to be used to finance a portion of the cost of the renovation and expansion of the Terminal. The 2021 JFK Bonds are comprised of term bonds, \$70 million of which bear interest at 2.25% per annum and mature on August 1, 2026, and \$80 million of which bear interest at 3.00% per annum and mature on August 1, 2031. As of December 31, 2021, \$236 million of proceeds funded by the issuance of the 2020 and 2021 JFK Bonds are included in restricted cash and short-term investments on the accompanying consolidated balance sheet.

Guarantees

As of December 31, 2021, American had issued guarantees covering AAG's \$1.8 billion aggregate principal amount of the PSP1 Promissory Note due April 2030, \$1.0 billion aggregate principal amount of the PSP2 Promissory Note due January 2031, \$946 million aggregate principal amount of the PSP3 Promissory Note due April 2031, \$1.0 billion aggregate principal amount of 6.50% convertible senior notes due July 2025, \$750 million aggregate principal amount of 5.000% senior notes due June 2022 and \$500 million aggregate principal amount of 3.75% senior notes due March 2025.

Certain Covenants

Certain of American's debt financing agreements (including its secured notes, term loans, revolving credit facilities and spare engine EETCs) contain loan to value (LTV), collateral coverage or peak debt service coverage ratio covenants and certain agreements require American to appraise the related collateral annually or semiannually. Pursuant to such agreements, if the applicable LTV, collateral coverage or peak debt service coverage ratio exceeds or falls below a specified threshold, as the case may be, American will be required, as applicable, to pledge additional qualifying collateral (which in some cases may include cash or investment securities), withhold additional cash in certain accounts, or to pay down such financing, in whole or in part, or the interest rate for the relevant financing will be increased. Additionally, a significant portion of American's debt financing agreements contain covenants requiring it 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, and its AAdvantage Financing contains a peak debt service coverage ratio, pursuant to which failure to comply with a certain threshold may result in early repayment, in whole or in part, of the AAdvantage Financing.

Specifically, American is required to meet certain collateral coverage tests for its Credit Facilities, 10.75% Senior Secured Notes and 11.75% Senior Secured Notes, as described below:

	2013 Credit Facilities	2014 Credit Facilities	April 2016 Credit Facilities	December 2016 Credit Facilities	10.75% Senior Secured Notes	11.75% Senior Secured Notes
Frequency of Appraisals of Appraised Collateral	Annual	Annual	Annual	Annual	Annual	Semi-Annual
LTV Requirement LTV as of Last Measurement Date	1.6x 38.4%	18.0%	aluation to amour Not Applicable	t of debt outst 53.5%	anding (62.5% 53.5%	% LTV) 33.5%
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 LaGuardia Airport (LGA) slots, certain simulators and certain leasehold rights	Generally, certain DCA slots, certain LGA slots, certain simulators and certain leasehold rights and, in the case of the IP Notes, certain intellectual property of American	Generally, certain slots, route authorities and airport gate leasehold rights used by American to operate certain services between the U.S. and the Caribbean, Central America and various other countries

At December 31, 2021, 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, 2021, American operated 696 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 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. Because of the variable nature of these rates, these leases are not recorded on American's consolidated balance

sheets as a ROU asset or a lease liability. 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,		
	2021	2020	2019
Operating lease cost	\$1,998	\$1,943	\$2,012
Finance lease cost:			
Amortization of assets	107	92	79
Interest on lease liabilities	44	38	43
Variable lease cost	2,461	1,786	2,542
Total net lease cost	\$4,610	\$3,859	\$4,676

Included in the table above is \$190 million, \$172 million and \$236 million of operating lease cost under American's capacity purchase agreement with Republic for the years ended December 31, 2021, 2020 and 2019, respectively. American holds a 25% equity interest in Republic Holdings, the parent company of Republic.

Additionally, not included in the table above, American recognized \$109 million in cash special charges in 2020 related to the impairment of ROU assets and lease return costs resulting from its decision to retire certain leased aircraft earlier than planned driven by the severe decline in air travel due to the COVID-19 pandemic.

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

	Decen	nber 31,
	2021	2020
Operating leases:	A= 0.40	A7 00 4
Operating lease ROU assets	\$7,810 \$1,496	\$7,994 \$1,641
Noncurrent operating lease liabilities	6,578	6,739
Total operating lease liabilities	\$8,074	\$8,380
Finance leases:		
Property and equipment, at cost	\$1,201	\$1,021
Accumulated amortization	(653)	(539)
Property and equipment, net	\$ 548	\$ 482
Current finance lease liabilities	\$ 174	\$ 100
Noncurrent finance lease liabilities	563	472
Total finance lease liabilities	\$ 737	\$ 572
Weighted average remaining lease term (in years):		
Operating leases	7.6	7.4
Finance leases	4.6	5.4
Weighted average discount rate:		
Operating leases	6.29	
Finance leases	6.19	% 6.3%

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

	Year Ended December 31,		
	2021	2020	2019
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	\$2,040	\$2,015	\$1,996
Operating cash flows from finance leases	37	39	43
Financing cash flows from finance leases	126	114	83
Non-cash transactions:			
ROU assets acquired through operating leases	1,381	898	1,144
Property and equipment acquired through finance leases	180	11	20
Operating lease conversion to finance lease	102	5	41
Gain on sale leaseback transactions, net	25	107	107

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

	December 31, 2021		
	Operating Leases	Finance Leases	
2022	\$ 1,912	\$ 215	
2023	1,777	183	
2024	1,398	180	
2025	1,032	113	
2026	757	87	
2027 and thereafter	3,600	77	
Total lease payments	10,476	855	
Less: Imputed interest	(2,402)	(118)	
Total lease obligations	8,074	737	
Less: Current obligations	(1,496)	(174)	
Long-term lease obligations	\$ 6,578	\$ 563	

As of December 31, 2021, American had additional operating lease commitments that have not yet commenced of approximately \$1.8 billion for 18 Boeing 787 Family aircraft scheduled to be delivered in 2022 through 2024 with lease terms of 10 years.

5. Income Taxes

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

	Year Ended December 31,			
	2021	2020	2019	
Current income tax provision: State and Local		\$ <u>_</u>	\$ 2 <u>8</u> 10	
Deferred income tax provision (benefit): Federal	(453) (47)	(2,224) (229)	567 56	
Deferred income tax provision (benefit)	(500) \$(500)	(2,453) \$(2,453)	623 \$633	

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

	Year Ended December 31,		
	2021	2020	2019
Statutory income tax provision (benefit)	\$(478)	\$(2,290)	\$547
State income tax provision (benefit), net of federal tax effect	(37)	(181)	41
Book expenses not deductible for tax purposes	21	20	29
Foreign income taxes, net of federal tax effect	_	_	8
Change in valuation allowance	_	_	5
Other, net	(6)	(2)	3
Income tax provision (benefit)	\$(500)	\$(2,453)	\$633

The components of American's deferred tax assets and liabilities were (in millions):

	Decem	per 31,	
	2021	2020	
Deferred tax assets:			
Operating loss and other carryforwards	\$ 4,476	\$ 3,944	
Loyalty program liability	1,903	1,977	
Leases	1,822	1,904	
Pensions	934	1,397	
Postretirement benefits other than pensions	215	203	
Rent expense	92	96	
Reorganization items	24	28	
Other	710	796	
Total deferred tax assets	10,176	10,345	
Valuation allowance	(24)	(24)	
Net deferred tax assets	10,152	10,321	
Deferred tax liabilities:			
Accelerated depreciation and amortization	(4,715)	(4,992)	
Leases	(1,758)	(1,809)	
Other	(279)	(294)	
Total deferred tax liabilities	(6,752)	(7,095)	
Net deferred tax asset	\$ 3,400	\$ 3,226	

At December 31, 2021, American had approximately \$17.1 billion of gross federal net operating losses (NOLs) and \$2.4 billion of other carryforwards available to reduce future federal taxable income, of which \$7.3 billion will expire beginning in 2024 if unused and \$12.2 billion can be carried forward indefinitely. American is a member of AAG's consolidated federal and certain state income tax returns. American also had approximately \$6.0 billion of NOL carryforwards to reduce future state taxable income at December 31, 2021, which will expire in taxable years 2021 through 2041 if unused.

American's ability to use its NOLs and other carryforwards depends on the amount of taxable income generated in future periods. American provides a valuation allowance for its deferred tax assets, which include the NOLs, when it is more likely than not that some portion, or all of its deferred tax assets, will not be realized. 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 availability and price volatility of aircraft fuel and travel demand. American presently has a \$24 million valuation allowance on certain net deferred tax assets related to state NOL carryforwards. There can be no assurance that an additional valuation allowance on American's net deferred tax assets will not be required. Such valuation allowance could be material.

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. 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 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 American's future use of NOLs and tax credits.

In 2021, American recorded an income tax benefit of \$500 million, with an effective rate of approximately 22%, which was substantially non-cash. Substantially all of American's loss before income taxes is attributable to the United States.

American files its tax returns as prescribed by the tax laws of the jurisdictions in which it operates. American's 2018 through 2020 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.

6. Risk Management

American's economic prospects are heavily dependent upon two variables it cannot control: general economic conditions 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 strong negative effect on American's business. In particular, the ongoing COVID-19 pandemic and associated decline in economic activity and increase in unemployment levels have had and are expected to continue to have a severe and prolonged effect on the global economy generally and, in turn, is expected to depress demand for air travel into the foreseeable future. Due to the uncertainty surrounding the duration and severity of this pandemic, American can provide no assurance as to when and at what pace demand for air travel will return to pre-COVID-19 pandemic levels, if at all. Accordingly, American cannot predict the ultimate impact of

the COVID-19 pandemic on its business, financial condition and results of operations. 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. Aircraft fuel prices have in the past, and may in the future, experience substantial volatility. Because of the amount of fuel needed to operate American's business, even a relatively small increase or decrease in the price of aircraft 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

American's accounts receivable relate primarily to its contracts with airline and non-airline business partners, including its co-branded credit card partners, and to tickets sold to individual passengers primarily through the use of major credit cards. Receivables from American's business partners are typically settled within 30 days. Receivables from ticket sales are short-term, mostly settled within seven days after sale. All accounts receivable are reported net of an allowance for credit losses, which have been minimal. American considers past and future financial and qualitative factors when establishing the allowance for credit losses. 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 LIBOR variable-rate debt obligations. Interest rates on \$10.9 billion principal amount of long-term debt as of December 31, 2021 are subject to adjustment to reflect changes in floating interest rates. The weighted average effective interest rate on American's variable-rate debt was 3.0% at December 31, 2021. American currently does not have an interest rate hedge program to hedge its exposure to floating interest rates on its variable-rate debt obligations.

On July 27, 2017, the U.K. 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. The discontinuation date for submission and publication of rates for certain tenors of USD LIBOR (1-month, 3-month, 6-month, and 12-month) was subsequently extended by the ICE Benchmark Administration (the administrator of LIBOR) until June 30, 2023. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2023. Similarly, it is not possible to predict whether LIBOR will continue to be viewed as an acceptable market benchmark, what rate or rates may become acceptable alternatives to LIBOR, or what effect these changes in views or alternatives may have on financial markets for LIBOR-linked financial instruments. The replacement of LIBOR with a comparable or successor rate could cause the amount of interest payable on American's long-term debt to be different or higher than expected.

(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 transactions. American's largest exposure comes from the British pound sterling, Euro, Chinese yuan, Canadian dollar and various Latin American currencies, primarily the Brazilian real. American does not currently have a foreign currency hedge program.

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 the fair value of 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, restricted cash and restricted 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, 2021.

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

	Fair Value Measurements as of December 31, 2021			
	Total	Level 1	Level 2	Level 3
Short-term investments (1), (2):				
Money market funds	\$ 106	\$106	\$ —	\$
Corporate obligations	8,665	_	8,665	
Bank notes/certificates of deposit/time deposits	2,194	_	2,194	
Repurchase agreements	1,190		1,190	_
	12,155	106	12,049	_
Restricted cash and short-term investments (1), (3)	990	654	336	_
Long-term investments (4)	239	239		
Total	\$13,384	\$999	\$12,385	\$

Fair Value Measurements as of December 31, 2020

	Total	Level 1	Level 2	Level 3
Short-term investments (1):				
Money market funds	\$ 245	\$245	\$ —	\$—
Corporate obligations	3,449	_	3,449	_
Bank notes/certificates of deposit/time deposits	2,168	_	2,168	
Repurchase agreements	755		755	
	6,617	245	6,372	_
Restricted cash and short-term investments (1), (3)	609	448	161	_
Long-term investments (4)	161	161		
Total	\$7,387	\$854	\$6,533	\$

⁽¹⁾ All short-term investments are classified as available-for-sale and stated at fair value. Unrealized gains and losses are recorded in accumulated other comprehensive loss at each reporting period. There were no credit losses.

- (3) Restricted cash and short-term investments primarily include collateral held to support workers' compensation obligations and money market funds to be used to finance a substantial portion of the cost of the renovation and expansion of the Terminal at JFK, and as of December 31, 2021, also include collateral associated with the payment of interest for the AAdvantage Financing.
- (4) Long-term investments primarily include American's equity investment in China Southern Airlines and as of December 31, 2021, American's long-term investments also include Vertical. These investments are reflected in other assets on American's consolidated balance sheets. See "Other Investments" below for further information on American's equity investments.

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 except for \$550 million as of December 31, 2020, which would have been classified as Level 3 in the fair value hierarchy.

The carrying value and estimated fair value of American's long-term debt, including current maturities, were as follows (in millions):

	December 31, 2021		December 31, 202	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Long-term debt, including current maturities	\$31,357	\$32,999	\$28,410	\$27,193

Other Investments

An important part of American's strategy to expand its network has been to initiate or expand its commercial relationships with other airlines, such as by entering into global alliance, joint business and codeshare relationships, and, in certain instances, by making an equity investment in another airline or other companies.

⁽²⁾ American's short-term investments as of December 31, 2021 mature in one year or less.

Republic Holdings

American has an approximate 25% ownership interest in Republic Holdings, which it received in 2017 in consideration for its unsecured claim in the Republic Holdings bankruptcy case. This ownership interest is accounted for under the equity method and American's portion of Republic Holdings' financial results is recognized within nonoperating other income, net on the consolidated statements of operations and the investment is reflected within other assets on its consolidated balance sheets.

China Southern

In the third quarter of 2017, American acquired 2.7% of the outstanding shares of China Southern for \$203 million. At December 31, 2021, American owned a 1.8% equity interest in China Southern. This ownership interest is accounted for at fair value based on China Southern's stock price and mark-to-market adjustments are recorded to nonoperating other income, net on the consolidated statement of operations.

Vertical

In the fourth quarter of 2021, American invested \$25 million to acquire 5.4%, or 11.25 million, of the outstanding shares of Vertical with an initial aggregate value of \$113 million, of which \$88 million was non-cash. In connection with this investment, American entered into a memorandum of understanding (MOU) with Vertical to pre-order (subject to certain conditions and future agreed upon milestones) up to 250 electric vertical take-off and landing (eVTOL) aircraft, with an option to order an additional 100 eVTOL aircraft. Pursuant to the MOU, American received warrants to purchase 1.75 million shares of Vertical common stock at \$0.0001 per share each time American places a legally binding commitment for 50 eVTOL aircraft, up to a maximum aggregate amount of 8.75 million shares. American's investment in Vertical is reflected within other assets on its consolidated balance sheet. The \$88 million non-cash portion of the fair value of equity securities received from Vertical is included as a deferred credit within other liabilities on the consolidated balance sheet and will be recognized as a reduction to the cost of eVTOL aircraft received in future periods or, if no legally binding commitment for eVTOL aircraft is entered into, will be recognized into income. American's investment in Vertical is accounted for at fair value based on Vertical's stock price and mark-to-market adjustments are recorded to nonoperating other income, net on the consolidated statement of operations.

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 was included as a component of prior service benefit in accumulated other comprehensive income (loss) (AOCI) and was amortized over the future service life of the active plan participants for whom the benefit was eliminated. This prior service benefit was fully amortized as of December 31, 2020.

Effective January 1, 2021, health coverage under American's retiree medical benefit program that is currently provided to certain retirees age 65 and over who retired prior to November 1, 2012, transitioned from a self-insured plan to a fully-insured Medicare Advantage plan. Benefits coverage has not been reduced and cost shared has not changed as a result of this transition. Due to this transition, as of December 31, 2020, American recognized a negative plan amendment of \$313 million to reduce its benefit obligation, which was included as a component of prior service cost in AOCI and will be amortized over the average remaining life expectancy of all retirees, or approximately 13 years. As of December 31, 2021, \$195 million of prior service cost 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, 2021 and 2020:

	Pension Benefits		Pension Benefits					cal and Other ent Benefits
	2021	2020	2021	2020				
		(In n	nillions)					
Benefit obligation at beginning of period	\$19,690	\$18,246	\$1,046	\$ 824				
Service cost	3	2	12	8				
Interest cost	523	611	30	30				
Actuarial (gain) loss (1), (2)	(606)	1,603	(57)	46				
Special termination benefits (3)	_	_	139	410				
Plan amendments (4)		_	_	(195)				
Settlements	(1)	(36)	_	_				
Benefit payments	(818)	(736)	(72)	(77)				
Benefit obligation at end of period	\$18,791	\$19,690	\$1,098	\$1,046				
Fair value of plan assets at beginning of period	\$13,477	\$12,829	\$ 170	\$ 204				
Actual return on plan assets	1,700	1,414	21	13				
Employer contributions (5)	247	6	48	30				
Settlements	(1)	(36)	_	_				
Benefit payments	(818)	(736)	(72)	(77)				
Fair value of plan assets at end of period	\$14,605	\$13,477	\$ 167	\$ 170				
Funded status at end of period	\$ (4,186)	\$ (6,213)	\$ (931)	\$ (876)				

The 2021 and 2020 pension actuarial (gain) loss primarily relates to the change in American's weighted average discount rate assumption.

⁽²⁾ The 2021 and 2020 retiree medical and other postretirement benefits actuarial (gain) loss primarily relates to the change in American's weighted average discount rate assumption and, in 2021, plan experience adjustments.

⁽³⁾ During the first quarter of 2021 and the third quarter of 2020, American remeasured its retiree medical and other postretirement benefits to account for enhanced healthcare benefits provided to eligible team members who opted into voluntary early retirement programs offered as a result of reductions to its operation due to the COVID-19 pandemic. As a result, during 2021, American recognized a \$139 million special charge for these enhanced healthcare benefits and increased its postretirement benefits obligation by \$139 million and during 2020 American recognized a \$410 million special charge for these enhanced healthcare benefits and increased its postretirement benefits obligation by \$410 million.

- (4) Principally relates to the transition of American's retiree medical benefit program from a self-insured plan to a fully-insured Medicare Advantage plan as discussed above.
- (5) In January 2021, American made \$241 million in contributions to its pension plans, including a contribution of \$130 million for the 2020 calendar year that was permitted to be deferred to January 4, 2021 as provided under the CARES Act.

Balance Sheet Position

	Pension Benefits		Retiree Medic Postretiremo	
	2021	2020	2021	2020
		(In m	illions)	
As of December 31,				
Current liability	\$ 7	\$ 7	\$ 90	\$ 55
Noncurrent liability	4,179	6,206	841	821
Total liabilities	\$4,186	\$6,213	\$ 931	\$ 876
Net actuarial loss (gain)	\$5,241	\$6,679	\$(396)	\$(358)
Prior service cost (benefit)	46	75	(167)	(181)
Total accumulated other comprehensive loss				
(income), pre-tax	\$5,287	\$6,754	<u>\$(563)</u>	<u>\$(539)</u>

Plans with Projected Benefit Obligations Exceeding Fair Value of Plan Assets

	Pension	Benefits
	2021	2020
	(In millions)	
Projected benefit obligation	\$18,791	\$19,690
Fair value of plan assets	14,605	13,477

Plans with Accumulated Benefit Obligations Exceeding Fair Value of Plan Assets

	Pension	Benefits	Retiree Medical and Other Postretirement Benefits		
	2021 2020		2021	2020	
	(In millions)				
Accumulated benefit obligation	\$18,782	\$19,678	\$ —	\$ —	
Accumulated postretirement benefit obligation	_	_	1,098	1,046	
Fair value of plan assets	14,605	13,477	167	170	

Net Periodic Benefit Cost (Income)

	Pen	sion Benefi	ts		ree Medical stretirement	
	2021	2020	2019	2021	2020	2019
			(ln mi	llions)		
Defined benefit plans:						
Service cost	\$ 3	\$ 2	\$ 2	\$ 12	\$ 8	\$ 3
Interest cost	523	611	699	30	30	33
Expected return on assets	(1,078)	(1,005)	(811)	(12)	(11)	(15)
Special termination benefits	_	_	_	139	410	_
Settlements	_	12	_	_	_	_
Amortization of:						
Prior service cost (benefit)	28	29	28	(13)	(135)	(236)
Unrecognized net loss (gain)	211	164	150	(24)	(24)	(31)
Net periodic benefit cost (income)	<u>\$ (313)</u>	<u>\$ (187)</u>	\$ 68	\$132	\$ 278	\$(246)

The service cost component of net periodic benefit cost (income) is included in operating expenses, the cost for the special termination benefits is included in special items, net and the other components of net periodic benefit cost (income) are included in nonoperating other income, net on American's consolidated statements of operations.

Assumptions

rate assumed for next year (1)

The following actuarial assumptions were used to determine American's benefit obligations and net periodic benefit cost (income) for the periods presented:

Retiree Medical and

4.0%

3.7%

		Pension	Benefits	Other Postretirement Benef			
		2021	2020	2021		2020	
Benefit obligations: Weighted average discount rate		3.0%	2.7%	2.8	%	2.4%	
	Pens	sion Benefi	ts		ee Medical tretirement		
	2021	2020	2019	2021	2020	2019	
Net periodic benefit cost (income): Weighted average discount rate Weighted average expected rate of return	2.7%	3.4%	4.4%	2.4%	3.2%	4.3%	
on plan assets	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	

The weighted average health care cost trend rate at December 31, 2021 is assumed to decline gradually to 3.9% by 2028 and remain level thereafter.

N/A

N/A

N/A

4.8%

As of December 31, 2021, American's estimate of the long-term rate of return on plan assets was 8.0% 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.

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. On March 11, 2021, the ARP was enacted, which included funding relief provisions benefiting single employer qualified retirement benefit pension plans such as those sponsored by American. Based on the ARP provisions applicable to its pension plans, American will have no additional funding requirements until 2023. 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.

Benefit Payments

The following benefit payments, which reflect expected future service as appropriate, are expected to be paid (approximately, in millions):

	2022	2023	2024	2025	2026	2027-
Pension benefits	\$860	\$893	\$928	\$961	\$989	\$5,194
Retiree medical and other postretirement benefits	114	109	103	99	95	390

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 the 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	45% - 80%
Public:	
U.S. Large	10% - 40%
U.S. Small/Mid	2% - 10%
International	10% - 25%
International Small/Mid	0% - 10%
Emerging Markets	2% - 15%
Alternative Investments	5% - 30%
Fixed Income	20% - 55%
Public:	
U.S. Long Duration	15% - 45%
High Yield and Emerging Markets	0% - 10%
Private Income	0% - 15%
Other	0% - 5%
Cash Equivalents	0% - 20%

U.S. long duration bonds are used to partially hedge the assets from declines in interest rates. Public equity as well as high yield 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. 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. 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. No changes in valuation techniques or inputs occurred during the year.

Benefit Plan Assets Measured at Fair Value on a Recurring Basis

The fair value of American's pension plan assets at December 31, 2021 and 2020, by asset category, were as follows (in millions):

	Fair Value Measurements as of December 31, 2021				
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	\$ 76	\$ —	\$	\$ 76	
Equity securities:					
International markets (a), (b)	2,166	_	4	2,170	
Large-cap companies (b)	1,860	_	_	1,860	
Mid-cap companies (b)	449			449	
Small-cap companies (b)	84	2		86	
Mutual funds/exchange traded funds (c)	177			177	
Fixed income:					
Corporate debt (d)		2,847		2,847	
Government securities (e)		1,128		1,128	
U.S. municipal securities		19		19	
Alternative instruments:					
Private market partnerships (f)			52	52	
Private market partnerships measured at					
net asset value (f), (g)	_	_	_	2,827	
Common/collective trusts (h)	_	337	_	337	
Common/collective trusts measured at net					
asset value (g), (h)	_	_	_	2,514	
Insurance group annuity contracts	_	_	2	2	
Other investments	_	3	_	3	
Dividend and interest receivable	45	_	_	45	
Due from brokers for sale of securities – net	10	_	_	10	
Other receivables – net	3			3	
Total	\$4,870	\$4,336	\$58	\$14,605	

- (a) Holdings are diversified as follows: 14% United Kingdom, 10% Ireland, 10% Japan, 9% Switzerland, 7% France, 6% Germany, 12% emerging markets and the remaining 32% 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 holdings invested 86% in U.S. treasuries and corporate bonds and 14% in equity securities of international companies.
- (d) Includes approximately 81% investments in corporate debt with a S&P rating lower than A and 19% investments in corporate debt with a S&P rating A or higher. Holdings include 86% U.S. companies, 12% international companies and 2% emerging market companies.
- (e) Includes approximately 94% investments in U.S. domestic government securities and 6% in emerging market government securities. There are no significant foreign currency risks within this classification.
- (f) Includes limited partnerships that invest primarily in domestic private equity and private income opportunities. 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 \$1.6 billion over the next ten years.
- (9) 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.
- (h) Investment includes 31% in a common/collective trust investing in large market capitalization equity securities within the U.S., 29% in three common/collective trusts investing in emerging country equity securities, 22% in a common/collective trust investing in equity securities of companies located outside the U.S., 11% in a collective interest trust investing primarily in short-term securities, 6% in a common/collective trust investing in smaller market capitalization equity securities within the U.S. and 1% in Canadian segregated balanced value, income growth and diversified pooled funds. For some trusts, requests for withdrawals must meet specific requirements with advance notice of redemption preferred.

Eair Value Measurements as of December 31, 2020

	Fair value Measurements as of December 31, 2020					
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	\$ 40	\$ —	\$—	\$ 40		
Equity securities:						
International markets (a), (b)	2,282			2,282		
Large-cap companies (b)	2,085	_	_	2,085		
Mid-cap companies (b)	428	_	_	428		
Small-cap companies (b)	73	1	_	74		
Fixed income:						
Corporate debt (c)	_	3,026	_	3,026		
Government securities (d)	_	1,010	_	1,010		
U.S. municipal securities	_	30	_	30		

Fair Value	Measurements	as of	December	31, 2020
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Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Alternative instruments:				
Private market partnerships (e)	_		15	15
Private market partnerships measured at net				
asset value (e), (f)	_			1,791
Common/collective trusts (g)	_	259		259
Common/collective trusts measured at net				
asset value (f), (g)	_	_	_	2,384
Insurance group annuity contracts	_	_	2	2
Dividend and interest receivable	49	_	_	49
Due from brokers for sale of securities – net	1		_	1
Other receivables – net	1			1
Total	\$4,959	\$4,326	\$17 	\$13,477

Holdings are diversified as follows: 11% Switzerland, 11% Ireland, 10% United Kingdom, 9% France, 8% Japan, 7% Germany, 6% Netherlands, 13% emerging markets and the remaining 25% with no concentration greater than 5% in any one country.

- (d) Includes approximately 89% investments in U.S. domestic government securities, 9% in emerging market government securities and 2% in international government securities. There are no significant foreign currency risks within this classification.
- (e) Includes limited partnerships that invest primarily in domestic private equity and private income opportunities. 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 \$1.6 billion over the next ten years.
- (f) 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.
- (9) Investment includes 34% in a common/collective trust investing in large market capitalization equity securities within the U.S., 30% in three common/collective trusts investing in emerging country equity securities, 21% in a common/collective trust investing in equity securities of companies located outside the U.S., 9% in a collective interest trust investing primarily in short-term securities, 5% in a common/collective trust investing in smaller market capitalization equity securities within the U.S. and 1% in Canadian segregated balanced value, income growth and diversified pooled funds. For some trusts, requests for withdrawals must meet specific requirements with advance notice of redemption preferred.

⁽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 89% U.S. companies, 9% international companies and 2% emerging market companies.

Changes in fair value measurements of Level 3 investments during the years ended December 31, 2021 and 2020, were as follows (in millions):

	2021	2020
Balance at beginning of year	\$17	\$12
Actual gain on plan assets:		
Relating to assets still held at the reporting date	10	1
Purchases	32	4
Sales	_(1)	
Balance at end of year	\$58	\$17

The fair value of American's retiree medical and other postretirement benefits plans' assets by asset category, were as follows (in millions):

	Fair Value Measurements as of December 31, 202					
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		163		163		
Total	<u>\$ 4</u>	<u>\$163</u>	<u>\$—</u>	<u>\$167</u>		
	Fair Value Meas	urements as o	f December 31, 2	2020		
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	_	166	_	166		

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. Net asset value is based on the fair market value of the funds' underlying assets and liabilities at the date of determination. The AAL Class mutual funds are offered only to benefit plans of American, therefore, trading is restricted only to American, resulting in a fair value classification of Level 2. Investments included approximately 24% and 25% of investments in non-U.S. common stocks in 2021 and 2020, respectively.

\$166

\$170

Defined Contribution and Multiemployer Plans

The costs associated with American's defined contribution plans were \$893 million, \$835 million and \$836 million for the years ended December 31, 2021, 2020 and 2019, respectively.

American participates in the International Association of Machinists & Aerospace Workers (IAM) National Pension Fund, Employer Identification No. 51-6031295 and Plan No. 002 (the IAM Pension Fund). American's contributions to the IAM Pension Fund were \$43 million, \$40 million and \$32 million for the years ended December 31, 2021, 2020 and 2019, respectively. The IAM Pension Fund reported

\$494 million in employers' contributions for the year ended December 31, 2020, which is the most recent year for which such information is available. For 2020, American's contributions represented more than 5% of total contributions to the IAM Pension Fund.

On March 29, 2019, the actuary for the IAM Pension Fund certified that the fund was in "endangered" status despite reporting a funded status of over 80%. Additionally, the IAM Pension Fund's Board voluntarily elected to enter into "critical" status on April 17, 2019. Upon entry into critical status, the IAM Pension Fund was required by law to adopt a rehabilitation plan aimed at restoring the financial health of the pension plan and did so on April 17, 2019 (the Rehabilitation Plan). Under the Rehabilitation Plan, American was subject to an immaterial contribution surcharge, which ceased to apply June 14, 2019 upon American's mandatory adoption of a contribution schedule under the Rehabilitation Plan. The contribution schedule requires 2.5% annual increases to its contribution rate. This contribution schedule will remain in effect through the earlier of December 31, 2031 or the date the IAM Pension Fund emerges from critical status.

Profit Sharing Program

American accrues 5% of its pre-tax income excluding net special items for its profit sharing program. As a result of American's pre-tax loss excluding net special items, there will not be a payout for 2021 under its profit sharing program.

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, 2019 Other comprehensive income (loss) before	\$(5,218)	\$(2)	\$(1,203)	\$(6,423)
reclassifications	(1,043)	_	236	(807)
Amounts reclassified from AOCI	46	_	(10)(2)	36
Net current-period other comprehensive				
income (loss)	(997)	_	226	(771)
Balance at December 31, 2020 Other comprehensive income (loss) before	(6,215)	(2)	(977)	(7,194)
reclassifications	1,289		(292)	997
Amounts reclassified from AOCI	202		(46)(2)	156
Net current-period other comprehensive				
income (loss)	1,491	_	(338)	1,153
Balance at December 31, 2021	\$(4,724)	\$(2)	<u>\$(1,315)</u>	<u>\$(6,041</u>)

⁽¹⁾ Relates principally to pension, retiree medical and other postretirement benefits obligations that will not be recognized in net loss until the obligations are fully extinguished.

Relates to pension, retiree medical and other postretirement benefits obligations and is recognized within the income tax benefit on American's consolidated statements of operations.

Reclassifications out of AOCI for the years ended December 31, 2021 and 2020 are as follows (in millions):

	Amounts reclas	sified from AOCI			
	Year Ended	December 31,	Affected line items on the consolidated statements of		
AOCI Components	2021	2020	operations		
Amortization of pension, retiree medical and other postretirement benefits: Prior service cost (benefit)	\$ 11	\$ (82) 118	Nonoperating other income, net Nonoperating other income, net		
Total reclassifications for the period, net of tax	\$156 	\$ 36			

Amounts allocated to other comprehensive income (loss) for income taxes 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, 2021 are expected to be as follows (approximately, in millions):

	2022	2023	2024	2025	2026	2027 and Thereafter	Total
Payments for aircraft and engine							
commitments (1)	\$1,987	\$1,851	\$3,358	\$3,535	\$1,663	\$688	\$13,082

These amounts are net of purchase deposits currently held by the manufacturers. American's purchase deposits held by all manufacturers totaled \$517 million and \$1.4 billion as of December 31, 2021 and December 31, 2020, respectively.

Due to the uncertainty surrounding the timing of delivery of certain aircraft, the amounts in the table represent American's most current estimate; however, the actual delivery schedule may differ from the table above, potentially materially.

On January 31, 2022, American entered into an amended purchase agreement with The Boeing Company (Boeing) pursuant to which it agreed to purchase 23 additional Boeing 737 MAX Family aircraft through the conversion of existing purchase options. American also intends to exercise purchase options for an additional seven aircraft in 2022, bringing its total incremental firm order of Boeing 737 MAX Family aircraft to 30, with 15 of such aircraft scheduled to be delivered in 2023 and 15 scheduled to be delivered in 2024. In addition, American entered into an amended purchase agreement with Boeing to defer the delivery of certain Boeing 787 Family aircraft previously scheduled to be delivered beginning in January 2023. Pursuant to this amendment, deliveries of these aircraft are now scheduled to commence in the fourth quarter of 2023 and will continue into 2027. The table above reflects American's purchase commitments after giving effect to these amendments and assumes American's exercise of the seven 737 MAX Family aircraft purchase options mentioned above.

Additionally, the amounts in the table exclude 10 and three Boeing 787-8 aircraft scheduled to be delivered in 2022 and 2023, respectively, and four and one Boeing 787-9 aircraft scheduled to be delivered in 2023 and 2024, respectively, for which American has obtained committed lease financing. See Note 4 for information regarding this operating lease commitment.

Additionally, American has purchase commitments related to aircraft fuel, flight equipment maintenance, construction projects and information technology support as follows (approximately): \$4.4 billion in 2022, \$1.8 billion in 2023, \$1.4 billion in 2024, \$154 million in 2025, \$610 million in 2026 and \$942 million in 2027 and thereafter.

(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. American controls marketing, scheduling, ticketing, pricing and seat inventories. 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.

As of December 31, 2021, American's capacity purchase agreements with third-party regional carriers had expiration dates ranging from 2022 to 2033, with rights of American to extend the respective terms of certain agreements.

As of December 31, 2021, American's minimum obligations under its capacity purchase agreements with third-party regional carriers are as follows (approximately, in millions):

	2022	2023	2024	2025	2026	2027 and Thereafter	Total
Minimum obligations under capacity purchase agreements with third-party regional							
carriers (1)	\$1,495	\$1,834	\$1,875	\$1,729	\$1,123	\$2,317	\$10,373

⁽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)

From time to time, airports where American has operations engage in construction projects, often substantial, that result in new or improved facilities that are ultimately funded through increases in the rent and other occupancy costs payable by airlines using the airport. Unlike this construction and funding model, American is managing a project at LAX where it has legal title to the assets during construction. 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, which started in October 2018 and is expected to be completed in

2028, will occur in a phased approach. The modernization project will include a unified departure hall to the entranceway of Terminals 4 and 5, reconfigured ticket counter and check-in areas with seamless access to security screening areas, 10 new security screening lanes with automated technology in addition to the existing Terminal 5 lanes, and a new Terminal 4 South concourse with more open 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.

As each phase is completed and ready for use, 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 the assets are sold and transferred to LAWA. As of December 31, 2021, American has incurred approximately \$338 million in costs relating to the LAX modernization project, of which \$112 million, \$114 million and \$98 million were incurred during 2021, 2020 and 2019, respectively, and have been included within operating property and equipment on its consolidated balance sheets and included within airport construction projects, net of reimbursements on its consolidated statements of cash flows. As of December 31, 2021, American has sold and transferred \$132 million of non-proprietary improvements to LAWA, of which \$21 million occurred during 2021. For non-proprietary improvements which are not yet ready for use, any cash payments received from LAWA will be reflected as a financial liability. As of December 31, 2021, American has received \$88 million in cash proceeds for non-proprietary improvements which are not yet ready for use, and therefore have not been sold and transferred back to LAWA. These proceeds are currently included in other accrued liabilities on American's consolidated balance sheet and are reflected as financing activities on its consolidated statement of cash flows.

JFK

In January 2020, American and British Airways announced the start of construction projects to upgrade New York's JFK Terminal 8 (the Terminal). The renovation projects at the Terminal include: (i) the reconfiguration or elimination of certain existing gates and the construction of widebody gates, (ii) the construction of approximately 51,000 square feet of new terminal building space and the refurbishment of 73,300 square feet of existing terminal space, (iii) the expansion of the baggage system capacity of the Terminal, (iv) improvements to the premium passenger lounges, check-in and, potentially, security access areas, and (v) bathroom refreshment, new signage, and other upgrades. The construction project is currently scheduled to be completed in 2023 and is estimated to cost \$439 million. In 2021, \$118 million was spent on construction projects to upgrade the Terminal and has been included in airport construction projects, net of reimbursements on American's consolidated statement of cash flows.

(d) Off-Balance Sheet Arrangements

Pass-Through Trusts

American currently has 344 owned aircraft, 11 leased aircraft and 60 owned spare aircraft engines, which in each case 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 or to permit issuance of debt backed by existing flight equipment. In the case of aircraft EETCs, 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. Similarly, in the case of the spare engine EETCs, the trusts allow American to use its existing pool of

spare engines to raise financing under a single facility. 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 or spare engines scheduled to be delivered, financed or refinanced upon the issuance of the EETC or within a specific period of time thereafter. At the time of each covered aircraft or spare engine 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 or engines. The equipment notes are issued, at American's election, in connection with a mortgage financing of the aircraft or spare engines 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 or engines, as applicable. 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, 2021, \$9.4 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; however, American concluded it is not the primary beneficiary under these leasing arrangements and 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 \$20 million as of December 31, 2021, 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, 2021, American had \$439 million of letters of credit and surety bonds securing various obligations, of which \$94 million is collateralized with American's restricted cash. The letters of credit and surety bonds that are subject to expiration will expire on various dates through 2025.

(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.

The Plan established a disputed claims reserve (DCR) 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 DCR 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 calculating earnings per common share. As disputed claims are resolved, the claimants receive distributions of shares from the DCR. American is not required to distribute additional shares above the limits contemplated by the Plan, even if the shares remaining for distribution in the DCR are not sufficient to pay any additional allowed unsecured claims. On November 29, 2021, the Bankruptcy Court granted American's motion to close the bankruptcy case. The motion authorized American to settle various bankruptcy-related claims, distribute excess reserved funds held in the DCR, excluding shares set aside for an earlier settlement of a claim that cannot be distributed until all appeals are final, and to close the Chapter 11 cases. On December 7, 2021, in accordance with the approval granted by the Bankruptcy Court, American distributed approximately 4.5 million shares of AAG common stock from the DCR to former AMR stockholders, to former convertible noteholders treated as stockholders under the Plan and to claimants. As of December 31, 2021, 0.3 million shares of AAG common stock remain in the DCR to be available to resolve an outstanding claim.

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, were named as defendants in approximately 100 putative class action lawsuits alleging unlawful agreements with respect to air passenger capacity. The U.S. lawsuits were consolidated in the Federal District Court for the District of Columbia (the DC Court). On June 15, 2018, American reached a settlement agreement with the plaintiffs in the amount of \$45 million to resolve all class claims in the U.S. lawsuits. That settlement was approved by the DC Court on May 13, 2019, however three parties who objected to the settlement have appealed that decision to the United States Court of Appeals for the District of Columbia. American believes these appeals are without merit and intends to vigorously defend against them.

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 Bankruptcy Court. The complaint named as defendants US Airways Group, US Airways, Inc., 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 Bankruptcy Court denied in part defendants' motion for summary judgment, and fully denied plaintiffs' cross-motion for summary judgment. The parties' evidentiary cases were presented before the Bankruptcy Court in a bench trial in March 2019 and the parties submitted proposed findings of fact and conclusions of law and made closing arguments in April 2019. On January 29, 2021, the Bankruptcy Court published its decision finding in American's favor. The plaintiffs have appealed this ruling to the U.S. District Court, which remains pending. American believes this lawsuit is without merit and intends to continue to vigorously defend against it, including against plaintiffs' appeal of the Bankruptcy Court's January 29, 2021 ruling.

Government Antitrust Action Related to the Northeast Alliance. On September 21, 2021, the United States Department of Justice (DOJ), joined by Attorneys General from six states and the District of Columbia, filed an antitrust complaint against American and JetBlue Airways Corporation (JetBlue) alleging that American and JetBlue violated U.S. antitrust laws in connection with the previously disclosed Northeast Alliance (NEA) arrangement. American believes this complaint is without merit and intends to defend against it vigorously.

Also on September 21, 2021, the United States Department of Transportation (DOT) published a Clarification Notice relating to the agreement that had been reached between the DOT, American, and JetBlue in January 2021, at the conclusion of the DOT's review of the NEA (DOT Agreement). The

DOT Clarification Notice stated, among other things, that the DOT Agreement remains in force during the pendency of the DOJ action against the NEA and, while the DOT retains independent statutory authority to prohibit unfair methods of competition in air transportation, the DOT intends to defer to DOJ to resolve the antitrust concerns that DOJ has identified with respect to the NEA. The DOT simultaneously published a Notice Staying Proceeding in relation to a complaint by Spirit Airlines, Inc. regarding the NEA, pending resolution of the DOJ action described above.

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.

(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, 2021, the remaining lease payments through 2035 guaranteeing the principal and interest on these bonds are \$555 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, 2021, American had issued guarantees covering AAG's \$1.8 billion aggregate principal amount of the PSP1 Promissory Note due April 2030, \$1.0 billion aggregate principal amount of the PSP2 Promissory Note due January 2031, \$946 million aggregate principal amount of the PSP3 Promissory Note due April 2031, \$1.0 billion aggregate principal amount of 6.50% convertible senior notes due July 2025, \$750 million aggregate principal amount of 5.000% senior notes due June 2022 and \$500 million aggregate principal amount of 3.75% senior notes due March 2025.

(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 all or a portion of advance ticket sales that have been processed by that company, but for which American has not yet provided the air transportation. 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 American's financial condition or the triggering of a liquidity covenant. These credit card processing companies are not currently entitled to maintain any holdbacks. The imposition of holdback requirements would reduce American's liquidity.

(h) Labor Negotiations

As of December 31, 2021, American employed approximately 96,800 active full-time equivalent (FTE) employees. Of the total active FTE employees, 87% are covered by collective bargaining agreements (CBAs) with various labor unions and 54% are covered by CBAs that are currently amendable or that will become amendable within one year. Joint collective bargaining agreements covering American's mainline pilots, flight attendants, passenger service, flight simulator engineers and dispatchers are now amendable.

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 3			r 31 ,	
	20)21	2020	20	019
Non-cash investing and financing activities:					
Equity investment	\$	88	\$ —	\$	_
Settlement of bankruptcy obligations		4	56		7
Deferred financing costs paid through issuance of debt		_	17		_
Supplemental information:					
Interest paid, net	1,	481	877	1,	,025
Income taxes paid		2	6		8

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(I) for American's passenger revenue 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 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.

For the years ended December 31, 2021, 2020 and 2019, American recorded \$95 million, \$91 million and \$95 million, respectively, of share-based compensation costs principally in salaries, wages and benefits expense on its consolidated statements of operations.

During 2021, 2020 and 2019, AAG withheld approximately 1.0 million, 0.7 million and 0.8 million shares of AAG common stock, respectively, and paid approximately \$18 million, \$15 million and \$25 million, respectively, in satisfaction of certain tax withholding obligations associated with employee equity awards.

Restricted Stock Unit Awards (RSUs)

The majority of American's RSUs have service conditions (time vested primarily over three years). The grant-date fair value of these RSUs is equal to the market price of the underlying shares of AAG common stock on the date of grant. The expense for these RSUs is recognized on a straight-line basis over the vesting period for the entire award. RSUs are classified as equity awards as the vesting results in the issuance of shares of AAG common stock.

RSU award activity for all plans for the years ended December 31, 2021, 2020 and 2019 is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
	(In thousands)	
Outstanding at December 31, 2018	4,320	\$44.29
Granted	3,206	34.00
Vested and released	(2,002)	44.90
Forfeited	(337)	42.55
Outstanding at December 31, 2019	5,187	\$37.01
Granted	5,883	22.07
Vested and released	(2,268)	39.46
Forfeited	(920)	29.78
Outstanding at December 31, 2020	7,882	\$23.66
Granted	5,525	18.34
Vested and released	(3,314)	25.58
Forfeited	(692)	18.78
Outstanding at December 31, 2021	9,401	\$20.17

As of December 31, 2021, there was \$95 million of unrecognized compensation cost related to RSUs. These costs are expected to be recognized over a weighted average period of one year. The total fair value of RSUs vested during the years ended December 31, 2021, 2020 and 2019 was \$62 million, \$51 million and \$68 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, 2021	\$442	\$165	\$ (19)	\$588
Year ended December 31, 2020	729	81	(368)	442
Year ended December 31, 2019	754	79	(104)	729
Allowance for credit losses on accounts				
receivable				
Year ended December 31, 2021	\$ 29	\$ 21	\$ (22)	\$ 28
Year ended December 31, 2020	25	25	(21)	29
Year ended December 31, 2019	24	17	(16)	25

15. Transactions with Related Parties

The following represents the net receivables (payables) to related parties (in millions):

	December 31,	
	2021	2020
AAG (1)	\$ 7,613	\$ 9,940
AAG's wholly-owned subsidiaries (2)	(2,066)	(2,063)
Total	\$ 5,547	\$ 7,877

⁽¹⁾ The decrease in American's net related party receivable from AAG is primarily due to cash received from the proceeds of AAG financing transactions including the PSP2 Promissory Note, PSP3 Promissory Note and the issuance of shares of AAG common stock pursuant to an at-the-market offering.

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 2021, 2020 and 2019, American recognized expense of approximately \$2.1 billion, \$1.8 billion and \$2.2 billion, respectively, related to wholly-owned regional airline capacity purchase agreements.

16. Subsequent Event

On January 31, 2022, American entered into an amended purchase agreement with Boeing, pursuant to which it has agreed to purchase 23 additional Boeing 737 MAX Family aircraft through the conversion of existing purchase options. American also intends to exercise purchase options for an additional seven aircraft in 2022, bringing its total incremental firm order of Boeing 737 MAX Family aircraft to 30, with 15 of such aircraft scheduled to be delivered in 2023 and 15 scheduled to be delivered in 2024. In addition, American entered into an amended purchase agreement with Boeing to defer the delivery of certain Boeing 787 Family aircraft previously scheduled to be delivered beginning in January 2023. Pursuant to this amendment, deliveries of these aircraft are now scheduled to commence in the fourth quarter of 2023 and will continue into 2027.

⁽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.

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, 2021 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, 2021 at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

For the three months ended December 31, 2021, 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, 2021.

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, 2021. 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, 2021.

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. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by 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, 2021 and 2020, the related consolidated statements of operations, comprehensive income (loss), cash flows, and stockholders' equity (deficit) for each of the years in the three-year period ended December 31, 2021, and the related notes (collectively, the consolidated financial statements), and our report dated February 22, 2022 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 22, 2022

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. and subsidiaries' (American) internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, American maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by 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, 2021 and 2020, the related consolidated statements of operations, comprehensive income (loss), cash flows, and stockholder's equity for each of the years in the three-year period ended December 31, 2021, and the related notes (collectively, the consolidated financial statements), and our report dated February 22, 2022 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 22, 2022

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DIS	SCLOSURE REGARD	ING FOREIGN JUF	RISDICTIONS THAT	PREVENT INSPECTIONS
Not Applicabl	e.			

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," "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.

AAG 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 AAG 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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Report of Independent Registered Public Accounting Firm (KPMG LLP, Dallas, TX, Auditor Firm ID: 185)	108
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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 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 AAG'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 AAG'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)).
3.6	Certificate of Designations of Series B Junior Participating Preferred Stock of American Airlines Group Inc., filed with the Secretary of State of the State of Delaware on December 21, 2021 (incorporated by reference to Exhibit 3.1 to AAG's Current Report on Form 8-K filed on December 22, 2021 (Commission File No. 1-8400)).
4.1	Description of securities registered under Section 12 of the Exchange Act.
4.2	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)).
4.3	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
4.4	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)).
4.5	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)).
4.6	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)).
4.7	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)).
4.8	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)).
4.9	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)).
4.10	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)).
4.11	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)).

Exhibit Number	Description
4.12	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)).
4.13	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)).
4.14	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)).
4.15	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)).
4.16	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)).
4.17	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)).
4.18	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)).
4.19	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)).
4.20	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)).
4.21	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)).

Exhibit Number	Description
4.22	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)).
4.23	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)).
4.24	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)).
4.25	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)).
4.26	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)).
4.27	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)).
4.28	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)).
4.29	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))

September 24, 2015 (Commission File No. 1-2691)).

Exhibit Number	Description
4.30	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)).
4.31	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)).
4.32	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)).
4.33	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)).
4.34	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)).
4.35	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)).
4.36	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)).
4.37	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)).
4.38	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)).

Exhibit Number	Description
4.39	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)).
4.40	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)).
4.41	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)).
4.42	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)).
4.43	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)).
4.44	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 (Exhibit A 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)).
4.45	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)).
4.46	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)).
4.47	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))

quarter ended March 31, 2014 (Commission File No. 1-8400)).

Exhibit Number	Description
4.48	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)).
4.49	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)).
4.50	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)).
4.51	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)).
4.52	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)).
4.53	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)).
4.54	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)).
4.55	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)).
4.56	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)).
4.57	Amended and Restated Guarantee, dated as of March 31, 2014, from American Airlines

quarter ended March 31, 2014 (Commission File No. 1-8400)).

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

Exhibit Number 4.58	Description 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)).
4.59	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)).
4.60	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)).
4.61	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)).
4.62	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)).
4.63	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)).
4.64	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)).
4.65	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)).

Exhibit Number	Description
4.66	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)).
4.67	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)).
4.68	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)).
4.69	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)).
4.70	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)).
4.71	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)).
4.72	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)).
4.73	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)).
4.74	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)).
4.75	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)).

Exhibit Number	Description
4.76	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)).
4.77	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)).
4.78	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)).
4.79	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)).
4.80	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)).
4.81	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)).
4.82	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)).
4.83	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)).
4.84	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)).

Exhibit Number	Description
4.85	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 July 12, 2016 (Commission File No. 1-2691)).
4.86	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 July 12, 2016 (Commission File No. 1-2691)).
4.87	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 July 12, 2016 (Commission File No. 1-2691)).
4.88	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 July 12, 2016 (Commission File No. 1-2691)).
4.89	Form of Pass Through Trust Certificate, Series 2016-2B (incorporated by reference to 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)).
4.90	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)).
4.91	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)).
4.92	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)).
4.93	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)).

Exhibit Number	Description
4.94	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 2016-3B, 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)).
4.95	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)).
4.96	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 October 4, 2016 (Commission File No. 1-2691)).
4.97	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 October 4, 2016 (Commission File No. 1-2691)).
4.98	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)).
4.99	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)).
4.100	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)).
4.101	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)).
4.102	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)).

Exhibit Number	Description
4.103	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)).
4.104	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)).
4.105	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)).
4.106	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)).
4.107	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)).
4.108	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)).
4.109	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)).
4.110	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)).
4.111	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)).
4.112	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)).

Exhibit Number	Description
4.113	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)).
4.114	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)).
4.115	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)).
4.116	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)).
4.117	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)).
4.118	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)).
4.119	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).
4.120	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).
4.121	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)).
4.122	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)).

Exhibit Number	Description
4.123	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)).
4.124	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)).
4.125	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)).
4.126	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)).
4.127	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)).
4.128	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)).
4.129	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)).
4.130	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)).
4.131	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)).
4.132	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)).

Exhibit Number	Description
4.133	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)).
4.134	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)).
4.135	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)).
4.136	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)).
4.137	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)).
4.138	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)).
4.139	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 2017-2B, 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)).
4.140	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)).
4.141	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)).

Exhibit Number	Description
4.142	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)).
4.143	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)).
4.144	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)).
4.145	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)).
4.146	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's Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1-2691)).
4.147	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's Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1-2691)).
4.148	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's Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1- 2691)).
4.149	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's Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1- 2691)).
4.150	Form of Pass Through Trust Certificate, Series 2021-1A (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on November 12, 2021 (Commission File No. 1-02691))

2021 (Commission File No. 1-02691)).

Exhibit Number	Description
4.151	Form of Pass Through Trust Certificate, Series 2021-1B (incorporated by reference to Exhibit A to Exhibit 4.3 to American's Current Report on Form 8-K filed on November 12, 2021 (Commission File No. 1-02691)).
4.152	Revolving Credit Agreement (2021-1A), dated as of November 8, 2021, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2021-1A, 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 November 12, 2021 (Commission File No. 1-02691)).
4.153	Revolving Credit Agreement (2021-1B), dated as of November 8, 2021, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2021-1B, 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 November 12, 2021 (Commission File No. 1-02691)).
4.154	Tax Benefit Preservation Plan, dated as of December 21, 2021, between American Airlines Group Inc. and American Stock Transfer & Trust Company, LLC, which includes the Form of Certificate of Designations of Series B Junior Participating Preferred Stock as Exhibit A, the Form of Right Certificate as Exhibit B and the Summary of Rights to Purchase Preferred Shares as Exhibit C (incorporated by reference to Exhibit 4.1 to AAG's Current Report on Form 8-K filed on December 22, 2021 (Commission File No. 1-8400)).
4.155	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's Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1-2691)).
4.156	Form of Pass Through Trust Certificate, Series 2012-2C(R) (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on May 16, 2018 (Commission File No. 1-2691)).
4.157	Trust Supplement No. 2019-1AA (Aircraft EETC), dated as of August 15, 2019, 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 15, 2019 (Commission File No. 1-02691)).
4.158	Trust Supplement No. 2019-1A (Aircraft EETC), dated as of August 15, 2019, 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 15, 2019 (Commission File No. 1-02691)).
4.159	Trust Supplement No. 2019-1B (Aircraft EETC), dated as of August 15, 2019, 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 August 15, 2019 (Commission File

No. 1-02691)).

Exhibit Number	Description
4.160	Intercreditor Agreement (2019-1), dated as of August 15, 2019, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2019-1AA (Aircraft EETC), as Trustee of the American Airlines Pass Through Trust 2019-1A (Aircraft EETC) and as Trustee of the American Airlines Pass Through Trust 2019-1B (Aircraft EETC), 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 4.5 to American's Current Report on Form 8-K filed on August 15, 2019 (Commission File No. 1-02691)).
4.161	Note Purchase Agreement, dated as of August 15, 2019, 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 August 15, 2019 (Commission File No. 1-02691)).
4.162	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 August 15, 2019 (Commission File No. 1-02691)).
4.163	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 August 15, 2019 (Commission File No. 1-02691)).
4.164	Form of Pass Through Trust Certificate, Series 2019-1AA (Aircraft EETC) (incorporated by reference to Exhibit A to Exhibit 4.2 to American's Current Report on Form 8-K filed on August 15, 2019 (Commission File No. 1-02691)).
4.165	Form of Pass Through Trust Certificate, Series 2019-1A (Aircraft EETC) (incorporated by reference to Exhibit A to Exhibit 4.3 to American's Current Report on Form 8-K filed on August 15, 2019 (Commission File No. 1-02691)).
4.166	Form of Pass Through Trust Certificate, Series 2019-1B (Aircraft EETC) (incorporated by reference to Exhibit A to Exhibit 4.4 to American's Current Report on Form 8-K filed on August 15, 2019 (Commission File No. 1-02691)).
4.167	Revolving Credit Agreement (2019-1AA), dated as of August 15, 2019, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2019-1AA (Aircraft EETC), as Borrower, and National Australia Bank Limited, as Liquidity Provider (incorporated by reference to Exhibit 4.18 to American's Current Report on Form 8-K filed on August 15, 2019 (Commission File No. 1-02691)).
4.168	Revolving Credit Agreement (2019-1A), dated as of August 15, 2019, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2019-1A (Aircraft EETC), as Borrower, and National Australia Bank Limited, as Liquidity Provider (incorporated by reference to Exhibit 4.19 to American's Current Report on Form 8-K filed on August 15, 2019 (Commission File No. 1-02691)).

Exhibit Number	Description
4.169	Trust Supplement No. 2021-1A, dated as of November 8, 2021, 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 November 12, 2021 (Commission File No. 1-02691)).
4.170	Trust Supplement No. 2021-1B, dated as of November 8, 2021, 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 November 12, 2021 (Commission File No. 1-02691)).
4.171	Intercreditor Agreement (2021-1), dated as of November 8, 2021, among Wilmington Trust Company, as Trustee of the American Airlines Pass Through Trust 2021-1A and as Trustee of the American Airlines Pass Through Trust 2021-1B, 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 November 12, 2021 (Commission File No. 1-02691)).
4.172	Note Purchase Agreement, dated as of November 8, 2021, 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 November 12, 2021 (Commission File No. 1-02691)).
4.173	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 November 12, 2021 (Commission File No. 1-02691)).
4.174	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 November 12, 2021 (Commission File No. 1-02691)).
4.175	Revolving Credit Agreement (2019-1B), dated as of August 15, 2019, between Wilmington Trust Company, as Subordination Agent, as agent and trustee for the trustee of the American Airlines Pass Through Trust 2019-1B (Aircraft EETC), as Borrower, and National Australia Bank Limited, as Liquidity Provider (incorporated by reference to Exhibit 4.20 to American's Current Report on Form 8-K filed on August 15, 2019 (Commission File No. 1-02691)).
4.176	Indenture, dated as of May 20, 2019, by and among American Airlines Group Inc., the Guarantor (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 May 21, 2019 (Commission File No. 1-8400)).
4.177	Form of 5.000% Senior Notes due 2022 (incorporated by reference to Exhibit A to Exhibit 4.1 to AAG's Current Report on Form 8-K filed on May 21, 2019 (Commission File No. 1-8400)).

Exhibit Number	Description
4.178	Indenture, dated as of February 25, 2020, by and among American Airlines Group Inc., the Guarantor (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 February 26, 2020 (Commission File No. 1-8400)).
4.179	Form of 3.75% Senior Notes due 2025 (incorporated by reference to Exhibit A to Exhibit 4.1 to AAG's Current Report on Form 8-K filed on February 26, 2020 (Commission File No. 1-8400)).
4.180	Indenture, dated as of June 25, 2020, by and between American Airlines Group Inc. 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 June 25, 2020 (Commission File No. 1-8400)).
4.181	First Supplemental Indenture, dated as of June 25, 2020, by and among American Airlines Group Inc., American Airlines, Inc. and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 4.2 to AAG's Current Report on Form 8-K filed on June 25, 2020 (Commission File No. 1-8400)).
4.182	Form of 6.50% Convertible Senior Notes due 2025 (incorporated by reference to Exhibit A to Exhibit 4.2 to AAG's Current Report on Form 8-K filed on June 25, 2020 (Commission File No. 1-8400)).
4.183	Indenture, dated as of June 30, 2020, by and among American Airlines, Inc., American Airlines Group, Inc. 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 July 2, 2020 (Commission File No. 1-8400)).
4.184	Form of 11.75% Senior Notes due 2025 (incorporated by reference to Exhibit A to Exhibit 4.1 to AAG's Current Report on Form 8-K filed on July 2, 2020 (Commission File Number 1-8400)).
4.185	Indenture (IP Notes), dated as of September 25, 2020, by and among American Airlines, Inc., American Airlines Group Inc. and Wilmington Trust, National Association, as trustee and as collateral trustee (incorporated by reference to Exhibit 4.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 (Commission File No. 1-8400)).#
4.186	Form of 10.75%/12.00% PIK Senior Secured IP Notes due 2026 (incorporated by reference to Exhibit A to Exhibit 4.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 (Commission File No. 1-8400)).
4.187	Indenture (LGA/DCA Notes), dated as of September 25, 2020, by and among American Airlines, Inc., American Airlines Group Inc. and Wilmington Trust, National Association, as trustee and as collateral trustee (incorporated by reference to Exhibit 4.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 (Commission File No. 1-8400)).#
4.188	Form of 10.75%/12.00% PIK Senior Secured Notes due 2026 (incorporated by reference to Exhibit A to Exhibit 4.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 (Commission File No. 1-8400)).
4.189	Warrant Agreement, dated as of April 20, 2020, between American Airlines Group, Inc. and the United States Department of the Treasury (incorporated by reference to Exhibit 4.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 (Commission File No. 1-8400))

File No. 1-8400)).

Exhibit Number	Description
4.190	Form of PSP1 Warrant (incorporated by reference to Annex B to Exhibit 4.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 (Commission File No. 1-8400)).
4.191	Warrant Agreement, dated as of September 25, 2020, between American Airlines Group, Inc. and the United States Department of the Treasury (incorporated by reference to Exhibit 4.5 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 (Commission File No. 1-8400)).
4.192	Form of Treasury Loan Warrant (incorporated by reference to Annex B to Exhibit 4.5 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 (Commission File No. 1-8400)).
4.193	Warrant Agreement, dated as of January 15, 2021, between American Airlines Group, Inc. and the United States Department of the Treasury (incorporated by reference to Exhibit 4.182 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).
4.194	Form of PSP2 Warrant (incorporated by reference to Annex B to Exhibit 4.182).
4.195	Warrant Agreement, dated as of April 23, 2021, between American Airlines Group Inc. and the United States Department of the Treasury (incorporated by reference to Exhibit 4.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (Commission File No. 1-8400)).
4.196	Form of PSP3 Warrant (incorporated by reference to Annex B to Exhibit 4.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (Commission File No. 1-8400)).
4.197	Indenture, dated as of March 24, 2021, by and among American Airlines, Inc., AAdvantage Loyalty IP Ltd., American Airlines Group Inc., AAdvantage Holdings 1, Ltd. and AAdvantage Holdings 2, Ltd. and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 4.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (Commission File No. 1-8400)).
4.198	Form of 5.50% Senior Secured Notes due 2026 (incorporated by reference as Exhibit A-1 to Exhibit 4.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (Commission File No. 1-8400)).
4.199	Form of 5.75% Senior Secured Notes due 2029 (incorporated by reference as Exhibit A-2 to Exhibit 4.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (Commission File No. 1-8400)).
10.1	Payroll Support Program Agreement, dated as of April 20, 2020, between American Airlines, Inc. and the United States Department of the Treasury (incorporated by reference to Exhibit 10.5 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 (Commission File No. 1-8400)).
10.2	Promissory Note, dated as of April 20, 2020, issued by American Airlines Group Inc. in the name of the United States Department of the Treasury and guaranteed by American Airlines, Inc., Envoy Air Inc., Piedmont Airlines, Inc. and PSA Airlines, Inc. (incorporated by reference to Exhibit 10.6 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 (Commission File No. 1-8400)).

Exhibit Number	Description
10.3	Payroll Support Program Extension Agreement, dated as of January 15, 2021, between American Airlines, Inc. and the United States Department of the Treasury (incorporated by reference to Exhibit 10.3 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).
10.4	Promissory Note, dated as of January 15, 2021, issued by American Airlines Group Inc. in the name of the United States Department of the Treasury and guaranteed by American Airlines, Inc., Envoy Air Inc., Piedmont Airlines, Inc. and PSA Airlines, Inc. (incorporated by reference to Exhibit 10.4 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).
10.5	Loan and Guarantee Agreement, dated as of September 25, 2020, among American Airlines, Inc., American Airlines Group Inc., the other guarantors party thereto from time to time, the United States Department of the Treasury and the Bank of New York Mellon, as administrative and collateral agent (incorporated by reference to Exhibit 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 (Commission File No. 1-8400).**
10.6	Restatement Agreement, dated as of October 21, 2020, to Loan and Guarantee Agreement, dated as of September 25, 2020, among American Airlines, Inc., American Airlines Group Inc., the other guarantors party thereto from time to time, the United States Department of the Treasury and the Bank of New York Mellon, as administrative and collateral agent (incorporated by reference to Exhibit 10.6 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.7	Letter Agreement, dated as of January 15, 2021, to Loan and Guarantee Agreement, dated as of September 25, 2020, among American Airlines, Inc., American Airlines Group Inc., the other guarantors party thereto from time to time, the United States Department of the Treasury and the Bank of New York Mellon, as administrative and collateral agent (incorporated by reference to Exhibit 10.7 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).
10.8	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)).
10.9	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)).

Exhibit Number	Description
10.10	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)).
10.11	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 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)).
10.12	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)).
10.13	Letter Agreement No. AAL-LA-2100511, dated as of March 9, 2021, to Purchase Agreement No. 3219 by and between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.8 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (Commission File No. 1-8400)).**
10.14	Amendment 1, dated as of March 25, 2021, to the Letter Agreement No. AAL-LA-2100511, dated as of March 9, 2021, to Purchase Agreement No. 3219 by and between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.9 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (Commission File No. 1-8400)).**
10.15	Amendment 2, dated as of June 28, 2021, to the Letter Agreement No. AAL-LA-2100511, dated as of March 9, 2021, to Purchase Agreement No. 3219 by and 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, 2021 (Commission File No. 1-8400)).**
10.16	Amendment No. 3, dated as of September 24, 2021, to the Letter Agreement No. AAL-LA-2100511, dated as of March 9, 2021, to Purchase Agreement No. 3219 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 September 30, 2021 (Commission File No. 1-8400)).**

quarter ended March 31, 2021 (Commission File No. 1-8400)).**

Letter Agreement No. AAL LA 2100530, dated as of March 9, 2021, to Purchase

Agreement No. 3219 by and between American Airlines, Inc. and The Boeing Company (incorporated by reference to Exhibit 10.10 to AAG's Quarterly Report on Form 10-Q for the

10.17

Evhibit	
Exhibit Number	Description
10.18	Supplemental Agreement No. 16, dated as of May 21, 2021, 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 10.4 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (Commission File No. 1-8400)).**
10.19	Amendment No. 4, dated as of December 15, 2021, to the Letter Agreement No. AAL-LA-2100511, dated as of March 9, 2021, to Purchase Agreement No. 3219 by and between American Airlines, Inc. and The Boeing Company.
10.20	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)).
10.21	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 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 (Commission File No. 1-8400)).*
10.22	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)).
10.23	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 (incorporated by reference to Exhibit 10.9 to AAG's Annual Report on Form 10-K for the year ended December 31, 2018 (Commission File No. 1-8400)).*
10.24	Seventh Amendment to the Amended and Restated Credit and Guaranty Agreement, dated as of November 8, 2019, 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 10.10 to AAG's Annual Report on Form 10-K for the year ended December 31, 2019 (Commission File No. 1-8400)).**
10.25	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

Exhibit Number	Description
	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)).
10.26	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)).
10.27	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)).
10.28	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)).*
10.29	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)).
10.30	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 (incorporated by reference to Exhibit 10.15 to AAG's Annual Report on Form 10-K for the year ended December 31, 2018 (Commission File No. 1-8400)).*
10.31	Sixth Amendment to Amended and Restated Credit and Guaranty Agreement, dated as of November 8, 2019, 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 10.17 to AGG's Annual Report on Form 10-K for the year ended December 31, 2019 (Commission File No. 1-8400)).**

Exhibit Number	Description
10.32	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)).
10.33	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)).
10.34	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)).*
10.35	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)).
10.36	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 (incorporated by reference to Exhibit 10.20 to AAG's Annual Report on Form 10-K for the year ended December 31, 2018 (Commission File No. 1-8400)).*
10.37	Fifth Amendment to Credit and Guaranty Agreement, dated as of November 8, 2019, 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 10.32 to AAG's Annual Report on Form 10-K for the year ended December 31, 2019 (Commission File No. 1-8400)). *
10.38	Purchase Agreement No. 3219, dated as of October 15, 2008, between American Airlines, Inc. and The Boeing Company.**
10.39	Supplemental Agreement No. 2, dated as of July 21, 2010, to Purchase Agreement No. 3219 between American Airlines, Inc. and The Boeing Company.**
10.40	Supplemental Agreement No. 3, dated as of February 1, 2013, to Purchase Agreement No. 3219 between American Airlines, Inc., and The Boeing Company.**
10.41	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.**

Exhibit Number	Description
10.42	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.**
10.43	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.**
10.44	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.**
10.45	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.**
10.46	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.**
10.47	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.**
10.48	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)).*
10.49	Supplemental Agreement No. 12, dated as of May 29, 2019, 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, 2019 (Commission File No. 1-8400)).**
10.50	Supplemental Agreement No. 13, dated as of August 20, 2019, 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 September 30, 2019 (Commission File No. 1-8400)).**
10.51	Supplemental Agreement No. 14, dated as of February 24, 2020, 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 March 31, 2020 (Commission File No. 1-8400)).**
10.52	Supplemental Agreement No. 15, dated as of March 16, 2020, 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 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 (Commission File No. 1-8400)).**
10.53	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 10.46 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**

Exhibit Number	Description
10.54	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 10.47 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.55	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 10.48 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.56	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 10.49 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.57	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 10.50 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.58	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 10.51 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.59	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 10.52 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.60	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 10.53 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.61	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 10.54 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.62	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 10.55 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.63	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 10.56 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).*

Exhibit Number	Description
10.64	Amendment No. 11, dated as of June 19, 2019, 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 June 30, 2019 (Commission File No. 1-8400)).**
10.65	Amendment No. 12, dated as of June 26, 2020, 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 10.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020 (Commission File No. 1-8400)).**
10.66	Amendment No. 13, dated as of July 13, 2020, 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 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 (Commission File No. 1-8400)).**
10.67	Amendment No. 15, dated as of June 30, 2021, 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 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2021 (Commission File No. 1-8400)).**
10.68	Amendment No. 14, dated as of October 8, 2020, 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 10.60 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.69	Purchase Agreement No. 03735, dated as of February 1, 2013, between American Airlines, Inc., and The Boeing Company.**
10.70	Supplemental Agreement No. 1, dated as of April 15, 2013, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company.**
10.71	Supplemental Agreement No. 2, dated as of March 6, 2015, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company.**
10.72	Supplemental Agreement No. 3, dated as of May 22, 2015, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company.**
10.73	Letter Agreement, dated as of January 14, 2016, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company.**
10.74	Supplemental Agreement No. 4, dated as of June 6, 2016, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company.**
10.75	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.**

Exhibit Number	Description
10.76	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.**
10.77	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.**
10.78	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)).*
10.79	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)).*
10.80	Supplemental Agreement No. 10, dated as of March 26, 2019, 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 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019 (Commission File No. 1-8400)).**
10.81	Letter Agreement, dated as of September 4, 2020, 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 10.3 to AAG's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020 (Commission File No. 1-8400)).**
10.82	Supplemental Agreement No. 11, dated as of October 9, 2020, 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 10.74 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.83	Supplemental Agreement No. 12, dated as of October 22, 2020, 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 10.75 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.84	Supplemental Agreement No. 13, dated as of November 17, 2020, 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 10.76 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.85	Supplemental Agreement No. 14, dated as of November 25, 2020, 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 10.77 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.86	Supplemental Agreement No. 15, dated as of December 15, 2020, 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 10.78 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**

Exhibit Number	Description
10.87	Amendment 1, dated as of December 31, 2020, to the Letter Agreement, dated as of September 4, 2020, 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 10.79 to AAG's Annual Report on Form 10-K for the year ended December 31, 2020 (Commission File No. 1-8400)).**
10.88	Supplemental Agreement No. 16, dated as of January 14, 2021, 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 10.5 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (Commission File No. 1-8400)).**
10.89	Supplemental Agreement No. 17, dated as of February 11, 2021, 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 10.6 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (Commission File No. 1-8400)).**
10.90	Supplemental Agreement No. 18, dated as of March 12, 2021, 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 10.7 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (Commission File No. 1-8400)).**
10.91	Supplemental Agreement No. 19, dated as of April 8, 2021, 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 10.5 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (Commission File No. 1-8400)).**
10.92	Supplemental Agreement No. 20, dated as of November 12, 2021, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company.
10.93	Letter Agreement, dated as of December 2, 2021, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company
10.94	Letter Agreement, dated as of December 17, 2021, to Purchase Agreement No. 03735 dated as of February 1, 2013, between American Airlines, Inc. and The Boeing Company.
10.95	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.**
10.96	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)).†
10.97	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)).†
10.98	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)).†

Exhibit Number	Description
10.99	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 (Registration No. 333-192660)).†
10.100	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)).†
10.101	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)).†
10.102	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)).†
10.103	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)).†
10.104	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)).†
10.105	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)).†
10.106	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)).†
10.107	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)).†
10.108	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)).†
10.109	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)).†
10.110	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)).†
10.111	Payroll Support Program 3 Agreement, dated as of April 23, 2021, between American Airlines, Inc. and the United States Department of the Treasury (incorporated by reference to Exhibit 10.1 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (Commission File No. 1-8400)).

Exhibit Number	Description
10.112	Promissory Note, dated as of April 23, 2021, issued by American Airlines Group Inc. in the name of the United States Department of the Treasury and guaranteed by American Airlines, Inc., Envoy Air Inc., Piedmont Airlines, Inc. and PSA Airlines, Inc. (incorporated by reference to Exhibit 10.2 to AAG's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (Commission File No. 1-8400)).
10.113	Term Loan Credit and Guaranty Agreement, dated as of March 24, 2021, among American Airlines, Inc., AAdvantage Loyalty IP Ltd., American Airlines Group Inc., AAdvantage Holdings 1, Ltd., AAdvantage Holdings 2, Ltd., Barclays Bank PLC, as administrative agent, Wilmington Trust, National Association, as collateral administrator, and the lenders party thereto (incorporated by reference as Exhibit 10.4 to AAG's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (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, 2021.
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).
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, formatted in Inline XBRL (eXtensible Business Reporting Language).
104.1	Cover page interactive data file (formatted in Inline XBRL and contained in Exhibit 101.1).

[#] Pursuant to Item 601(a)(5) 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.
- ** Certain confidential information contained in this agreement has been omitted because it (i) is not material and (ii) would be competitively harmful if publicly disclosed.
- † 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 22, 2022 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 22, 2022 By: <u>/s/ W. Douglas Parker</u>

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, 2021, 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 22, 2022	/s/ W. Douglas Parker W. Douglas Parker Chairman and Chief Executive Officer (Principal Executive Officer)
Date: February 22, 2022	/s/ Derek J. Kerr Derek J. Kerr Chief Financial Officer (Principal Financial and Accounting Officer)
Date: February 22, 2022	/s/ James F. Albaugh James F. Albaugh, Director
Date: February 22, 2022	/s/ Jeffrey D. Benjamin Jeffrey D. Benjamin, Director
Date: February 22, 2022	/s/ Adriane M. Brown Adriane M. Brown, Director
Date: February 22, 2022	/s/ John T. Cahill John T. Cahill, Director
Date: February 22, 2022	/s/ Michael J. Embler Michael J. Embler, Director
Date: February 22, 2022	/s/ Matthew J. Hart Matthew J. Hart, Director

Date: February 22, 2022	/s/ Susan D. Kronick
	Susan D. Kronick, Director
Date: February 22, 2022	/s/ Martin H. Nesbitt
	Martin H. Nesbitt, Director
Date: February 22, 2022	/s/ Denise M. O'Leary
	Denise M. O'Leary, Director
Date: February 22, 2022	/s/ Ray M. Robinson
	Ray M. Robinson, Director
Date: February 22, 2022	/s/ Gregory D. Smith
	Gregory D. Smith, Director
Date: February 22, 2022	/s/ Douglas M. Steenland
	Douglas M. Steenland, 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 22, 2022	/s/ W. Douglas Parker
	W. Douglas Parker
	Chairman and Chief Executive Officer
	(Principal Executive Officer)
Date: February 22, 2022	/s/ Derek J. Kerr
	Derek J. Kerr
	Chief Financial Officer
	(Principal Financial and Accounting Officer)
Date: February 22, 2022	/s/ Stephen L. Johnson
	Stephen L. Johnson, Director
Date: February 22, 2022	/s/ Robert D. Isom
	Robert D. Isom, Director